Community and Economic Development
Planning Division

Matthew Treber
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

PLANNING COMMISSION DATE: **April 5, 2016**

AGENDA ITEM: **#1**

CUP	**#2016-002**	**To Amend Conditional Use Permit #2012-015 to allow for a reconfiguration of a dairy digester**
APN	**#043-076-003**	**Owner/Applicant: Philip Verwey**
CEQA	**MND #2016-04**	**Mitigated Negative Declaration**

REQUEST:

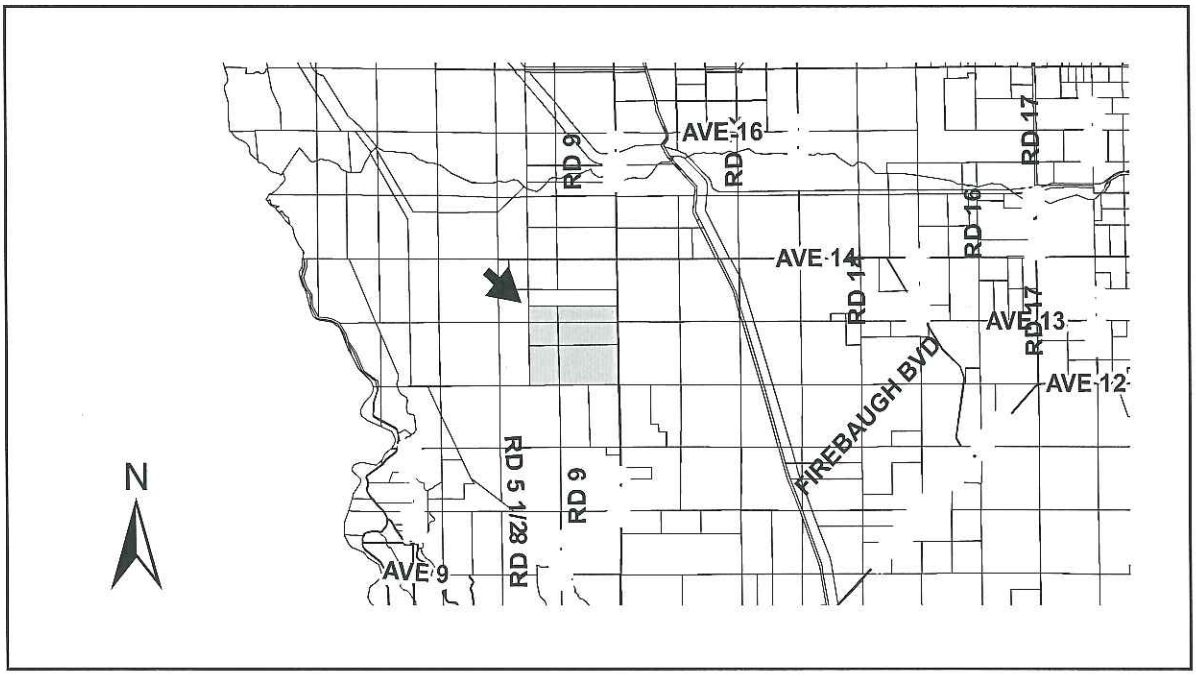
This is a request to amend Conditional Use Permit #2012-015 to reconfigure an approved dairy digester facility.

LOCATION:

The subject property is located on the west side of Road 9, approximately 0.98 of a mile south of its intersection with Avenue 14 (12852 Road 9) Madera

ENVIRONMENTAL ASSESSMENT:

A Mitigated Negative Declaration (MND #2016-04) (Exhibit N) has been prepared and is subject to approval by the Planning Commission.



RECOMMENDATION: **Staff recommends approval of Conditional Use Permit #2016-002 subject to conditions, Mitigated Negative Declaration MND #2016-04, and the Mitigation Monitoring Program.**

CUP #2016-002
STAFF REPORT **April 5, 2016**

GENERAL PLAN DESIGNATION (Exhibit A)**:**

SITE: AE (Agricultural Exclusive) Designation

SURROUNDING: AE (Agricultural Exclusive) Designation

ZONING (Exhibit B)**:**

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

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

LAND USE:

SITE: Dairy

SURROUNDING: Agricultural and dairy support land

SIZE OF PROPERTY: 1,164.8 acres

ACCESS (Exhibit A)**:** Access to the site is via Road 9.

BACKGROUND AND PRIOR ACTIONS:

Conditional Use Permit #96-52 was approved in 1996 to establish a 2,000 head dairy with 2,060 head support stock. The dairy would be of typical dairy design with milking barns, freestall barns, and hay barns. Due to non-compliance with the conditions of approval within a one-year time period, the permit expired and was voided in March of 1998. The dairy was not in operation as a result of the expiration.

Conditional Use Permit #98-42 was approved to allow for the dairy on the same parcels as CUP #96-52 in March 1998.

Conditional Use Permit #2012-015 was approved on November 13, 2012 to allow for a dairy manure digester facility on the existing dairy. Equipment would have consisted of four (4) anaerobic digester vessels of roughly 950,000 gallons each and one Catapiller genset with a capacity of 1.6 megawatts.

PROJECT DESCRIPTION:

This Conditional Use Permit is to amend CUP #2012-015 for a reconfiguration of the digester facility. This amendment eliminates the 4 original digester vessels in favor of a 17.3 million gallon capacity lagoon digester and a 0.8 megawatt guascar genset engine. The genset will be in an enclosed metal structure. The electricity produced from the generator is anticipated to have an average electrical generation of 874 kW per year, which translates to approximately 7,654,748 kWh per year. The electricity generated from the process will then be distributed into the PG&E infrastructure.

The digester will capture and burn methane from existing dairy wastewater flows, which in turn generates energy which will in part be used to offset the dairy facilities energy usage as well as be sold to an off-site energy producer. Wastewater flows will be from the Verwey Dairy only, no off-site material is being sourced for the project.

RM

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:

The property is zoned ARE-40 (Agricultural Rural Exclusive – 40 Acre) District which allows for dairies with a Conditional Use Permit. The parcel has a General Plan designation of AE (Agricultural Exclusive) Designation, which allows for agricultural uses, limited agricultural support service uses (barns, animal feed facilities, silos, etc.) agriculturally oriented services, and public and quasi-public uses and similar services. The zoning and general plan designations are consistent with the proposed use. The parcels surrounding the project site are agriculturally zoned, with parcel sizes ranging from 116 acres to approximately 600 acres.

The applicant is requesting a Conditional Use Permit to amend CUP #2012-015 which originally allowed for a digester to be constructed on the dairy facility. Since then, the digester facility has gone through a redesign process that reconfigured the facility to be more efficient.

The 2012 Conditional Use Permit proposed four (4) anaerobic digester vessels with a volume capacity of approximately 950,000 gallons each (for a total capacity of 3.8 million gallons) and one Catapiller genset with a capacity of 1.6 megawatts generation. The originally proposed digester vessels would have been located adjacent to the existing dairy facility. The generated electricity from the genset will be transmitted over existing electrical distribution infrastructure.

The revised plans now eliminate the digester vessels in favor of a 17.3 million gallon capacity lagoon digester and a 0.8 megawatt guascar genset engine. The lagoon digester is covered, as seen on page 8 of Exhibit H of this staff report.

The digester will be located in the process flow after the mechanical slope screens that separate fiber and sand lane, and before the existing retention pond. The digester will not create any changes to the amount of solids produced from the facility. The water will flow from the screens and sand lane to the lined retention pond and will be piped through the lined pond with a cover and digester prior to flowing by gravity to the existing retention pond. Only dairy wastewater is utilized as a part of the process, and no new water is added in the system.

The proposed digester is a covered lined pond that is a plug flow, as material is added, the same amount leaves. The wastewater is retained in the digester for 30 days. In the anaerobic conditions of the system, the microbes digest the material creating biogas. 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.

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.

The digester will produce biogas, which is principally composed of 60-70% methane and 30-40% carbon dioxide. The biogas will be piped to a gas conditioning system which will remove hydrogen sulfide and moisture. The gas conditioning system consists of a chiller to lower the temperature of the gas for moisture removal and an iron sponge system to scrub the hydrogen sulfide in the gas.

The second part of the system will be a new 800 kW combined heat and power engine generator (genset) unit. The electricity produced from the generator is anticipated to have an average electrical generation of 874 kW per year, which translates to approximately 7,654,748 kWh per year. The electricity generated from the process will then be distributed into the PG&E infrastructure.

According to the Madera County Transportation Commission (MCTC), the traffic counts for the area range from 339 north bound to 323 south bound vehicles along Road 9 south of its' intersection with Avenue 14 which is the closest intersection for which there are traffic counts for 2012; MTC also shows 102 east bound trips and 221 west bound trips on Avenue 14, east of its' intersection with Road 9 which are the most current trip counts for the intersection as of 2013.

This project was circulated to the Agricultural Commissioner, Public Works, Fire, and Environmental Health Departments of the County for comments and conditions. It was also circulated to outside agencies, including the Department of Fish and Wildlife (formally the Department of Fish and Game), Regional Water Quality Control, and the San Joaquin Valley Unified Air District. Outside agencies did not comment.

If this project is approved, the applicant will need to submit a check, made out to the County of Madera, in the amount of $2,260.25 to cover the Notice of Determination (CEQA) filing at the Clerks' office. The amount covers the current $2,210.25 Department of Fish and Wildlife fee 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.

RM

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 submitted an application for the Conditional Use Permit, 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. As the project is amending an existing Conditional Use Permit, and the dairy was acknowledged via Conditional Use Permit back in 1998, the spirit and intent of the zoning ordinance is not violated.

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.

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.

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.* Surrounding properties are agriculturally zoned, and most of the immediately adjacent parcels are owned by the dairy operator, this project does not adversely affect property values or general desirability of the surrounding properties.

WILLIAMSON ACT:

The property is subject to a Williamson Act contract. The proposed project will not be in conflict with the Williamson Act contract.

GENERAL PLAN CONSISTENCY:

The General Plan designation for the property is AE (Agricultural Exclusive) which allows for agricultural uses as well as public and quasi-public uses. The property is zoned ARE-40 (Agricultural, Rural, Exclusive 40-Acre) District which allows for dairies with a Conditional Use Permit. The zoning and general plan designations are compatible with the use.

RECOMMENDATION:

The analysis provided in this report supports approval of the Conditional Use Permit (CUP #2016-002), Mitigated Negative Declaration (MND #2016-04), and the Mitigation Measure Monitoring Program as presented.

RM

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 (close up)
5. Exhibit D-1, Facility Site Plan
6. Exhibit E, Aerial Map
7. Exhibit F, Topographical Map
8. Exhibit G, Operational Statement
9. Exhibit H, Verwey Dairy Operational Plan
10. Exhibit I, Environmental Health Comments
11. Exhibit J, Fire Marshall's Comments
12. Exhibit K, Public Works – Engineering Comments
13. Exhibit L, Public Works – Roads Comments
14. Exhibit M, Initial Study
15. Exhibit N, Mitigated Negative Declaration

CONDITIONS OF APPROVAL

PROJECT NAME:	CUP #2016-002
PROJECT LOCATION:	west side of Road 9, approximately 0.98 of a mile south of its intersection with Avenue 14 (12852 Road 9) Madera
PROJECT DESCRIPTION:	to amend CUP #2012-015 to redesign dairy digester
APPLICANT:	Verwey Dairy
CONTACT PERSON/TELEPHONE NUMBER:	559-908-0836

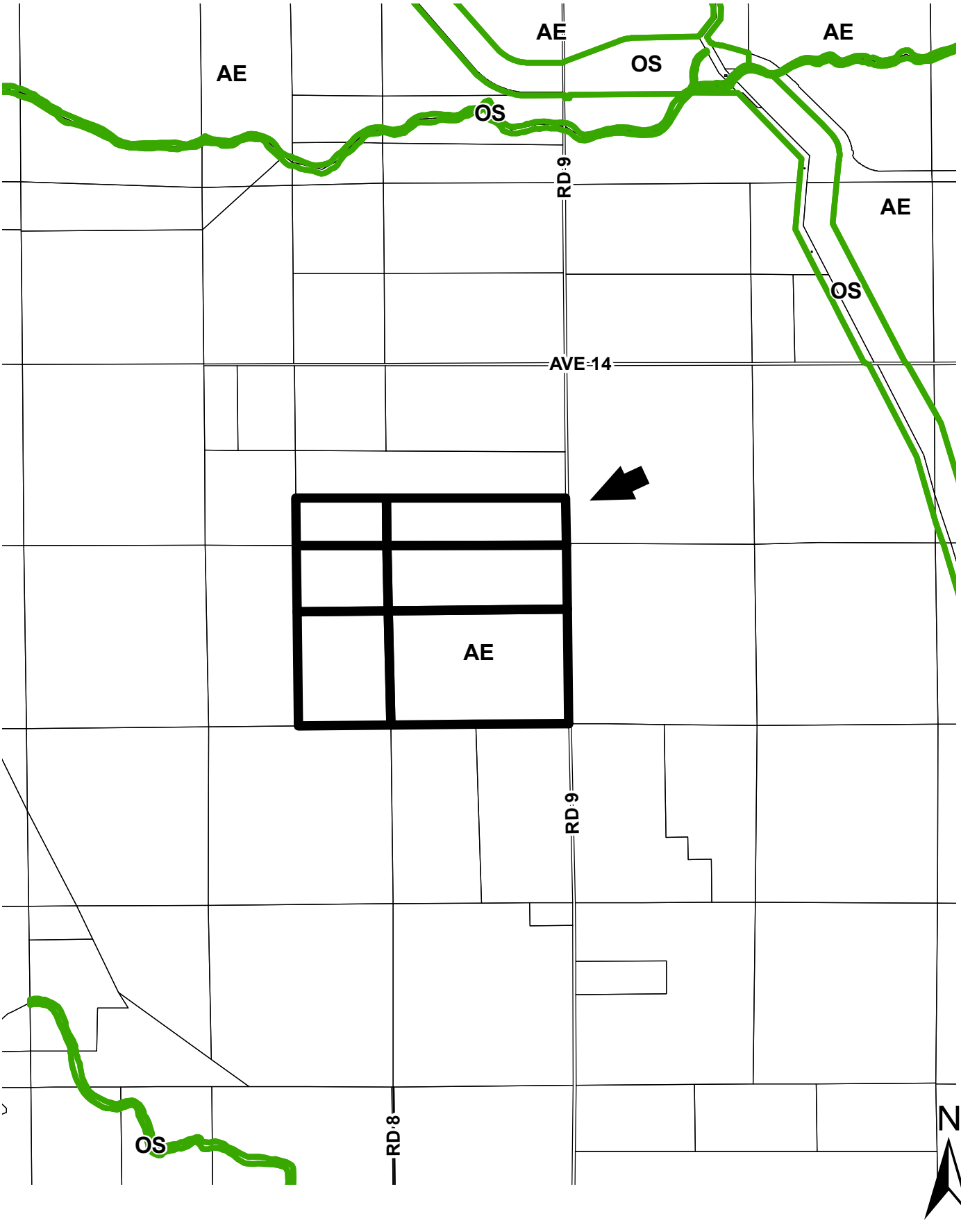
No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks
Environmental Health					
1	All on-site well(s) Agriculture, Domestic, and/or Public wells must maintain setback requirements under Regional Water Quality Control Board (RWQCB) Water Well Standards, and Madera County Code Chapter 13.52 and Chapter 14.20. All surface water runoff shall be diverted away from any water well(s) and/or sewage disposal system(s) on or around surrounding property.				
2	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.				
3	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.				
4	If your facility handles/store any hazardous materials on-site or generates hazardous waste you may be subject to permitting requirements though our department. As of January 2013 all Certified Unified Program Agency (CUPA) regulated businesses must submit their Hazardous Material Business Plan electronically into the California Environmental Reporting System (CERS) at www.cers.calepa.ca.gov.				

No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks
5	The construction and then ongoing operation must be done in a manner that shall not allow any type of public nuisance(s) to occur including but not limited to the following nuisance(s); Dust, Odor(s), Noise(s), Lighting, Vector(s) or Litter. This must be accomplished under accepted and approved Best Management Practices (BMP) and as required by the County General Plan, County Ordinances and any other related State and/or Federal jurisdiction.				
6	During the application process for required County permits, a more detailed review of the proposed project's compliance with all current local, state & federal requirements will be reviewed by this department. The owner/operator of this property must submit all applicable permit applications to be reviewed and approved by this department prior to commencement of any work activities.				
Fire					
	none				
Planning					
1	Facility to operate per submitted Operational Statement except where modified by conditions of approval and/or mitigation measures associated with this project.				
2	Conditions of approval in Conditional Use Permit #98-42 for the dairy and CUP #2012-015 for digester remain in effect as approved.				
3	All lighting associated with this project is to be hooded and directed down and away from neighboring parcels				
4	All areas of circulation related to this project are to be constructed and maintained in a dust free manner.				
5	Dairy waste material used in the normal operations of the equipment and process will be from this dairy only, no material will be shipped in from other operations or dairies.				
6	Solid waste and liquid waste that is accumulated at the end process shall be utilized on-site in accordance with Nutrient Management Plan associated with the dairy activities.				
7	Any signage associated with this project shall be approved by the Planning Department prior to placement on the project site.				
8	Any noise generated by this project as a part of normal operations shall conform to County Ordinance.				

No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks
Public Works - Engineering and Roads					
1	Proposed project location is in s FEMA Special Flood Hazard Area and any proposed structures will be required to built according to FEMA National Flood Insurance Program Standards.				
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 roadway at the time, County reserves the rights to require the applicant to repair and provide any necessary improvements to the existing roadway if there are damages to the existing pavement caused by the dairy daily operations within the limit of the development.				
3	For any new structures or buildings to be added on site, the applicant is required to submit a grading, drainage plan, and any applicable drainage storage calculations to the Public Works Department for review and approval. This plan shall identify onsite retention for any potential increase in storm water runoff generated by the proposed development. The grading, drainage plan, and calculations shall be prepared by a licensed professional.				
4	If applicable, 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.				
5	If applicable, 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.				
6	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.				

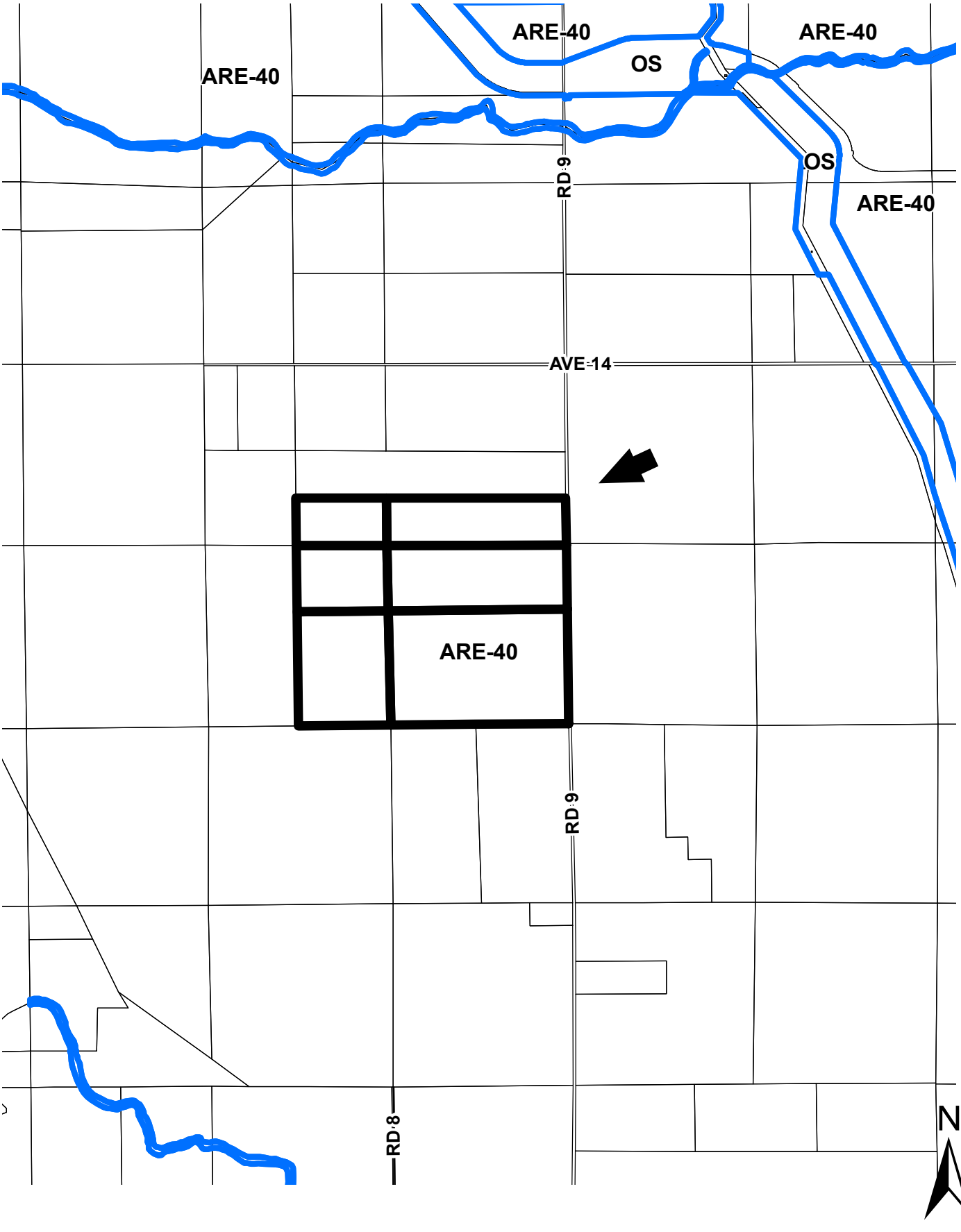
No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks

EXHIBIT A



GENERAL PLAN MAP

EXHIBIT B



ZONING MAP

ASSESSOR'S MAP

ORIGINAL

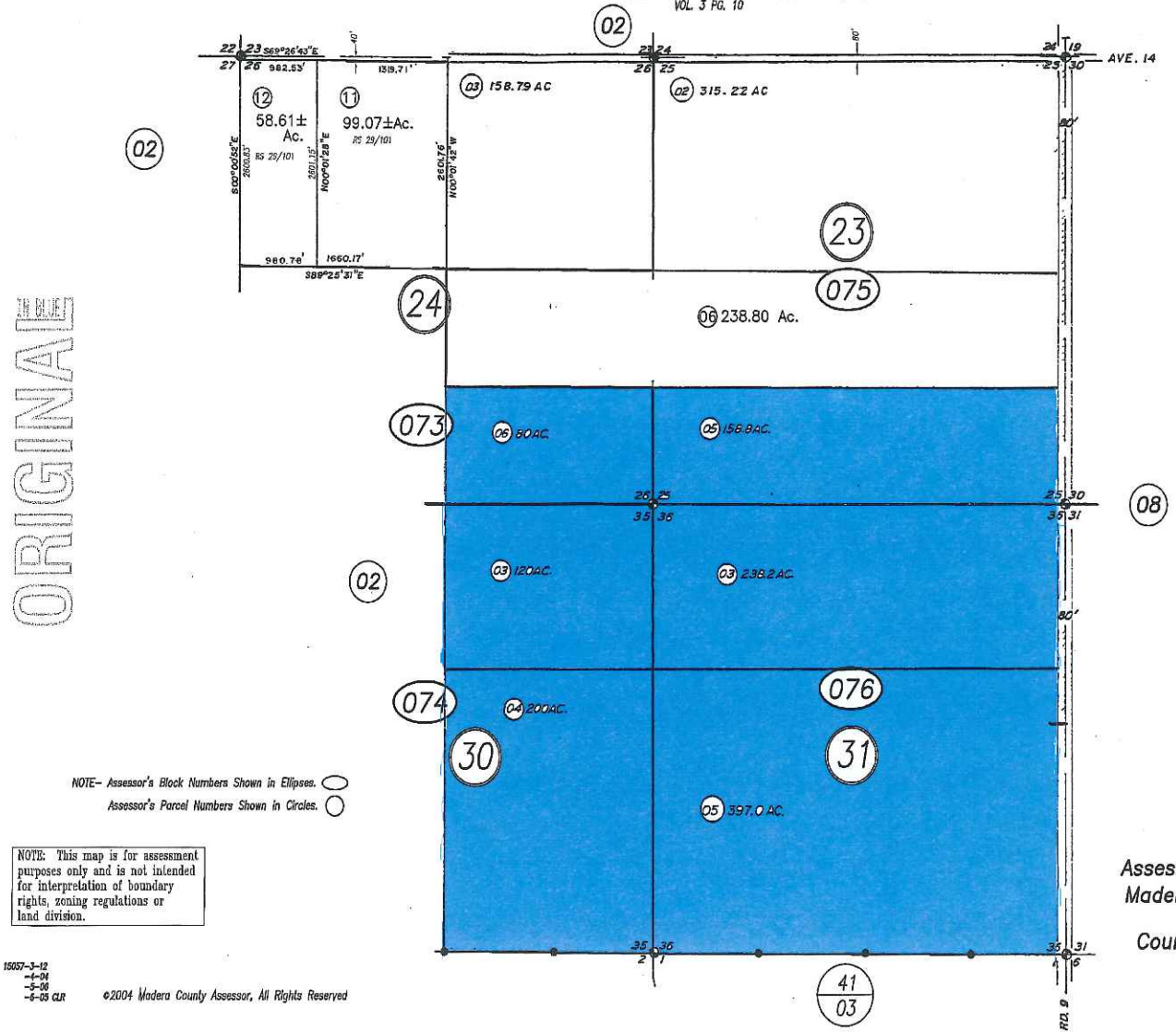
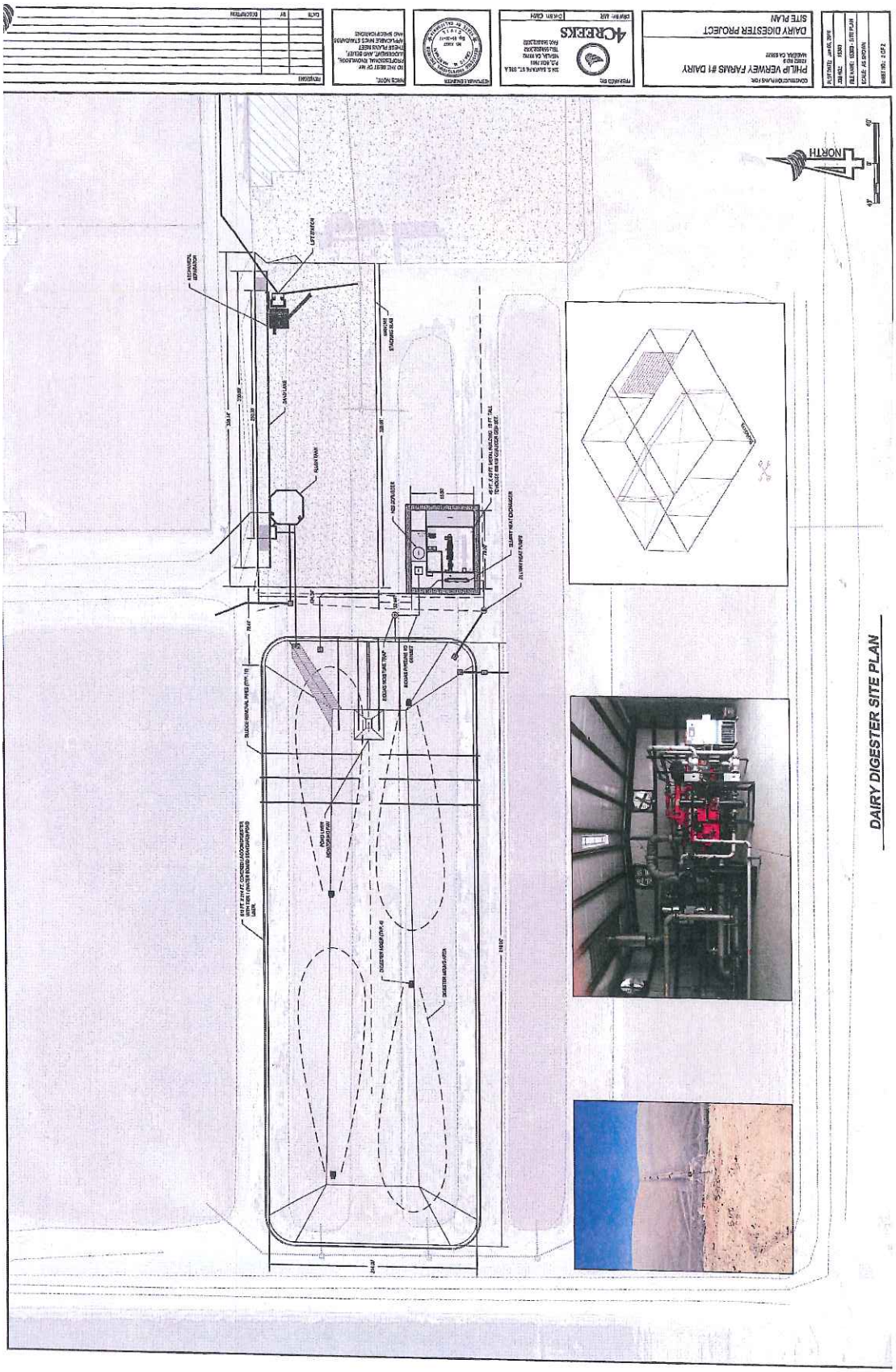


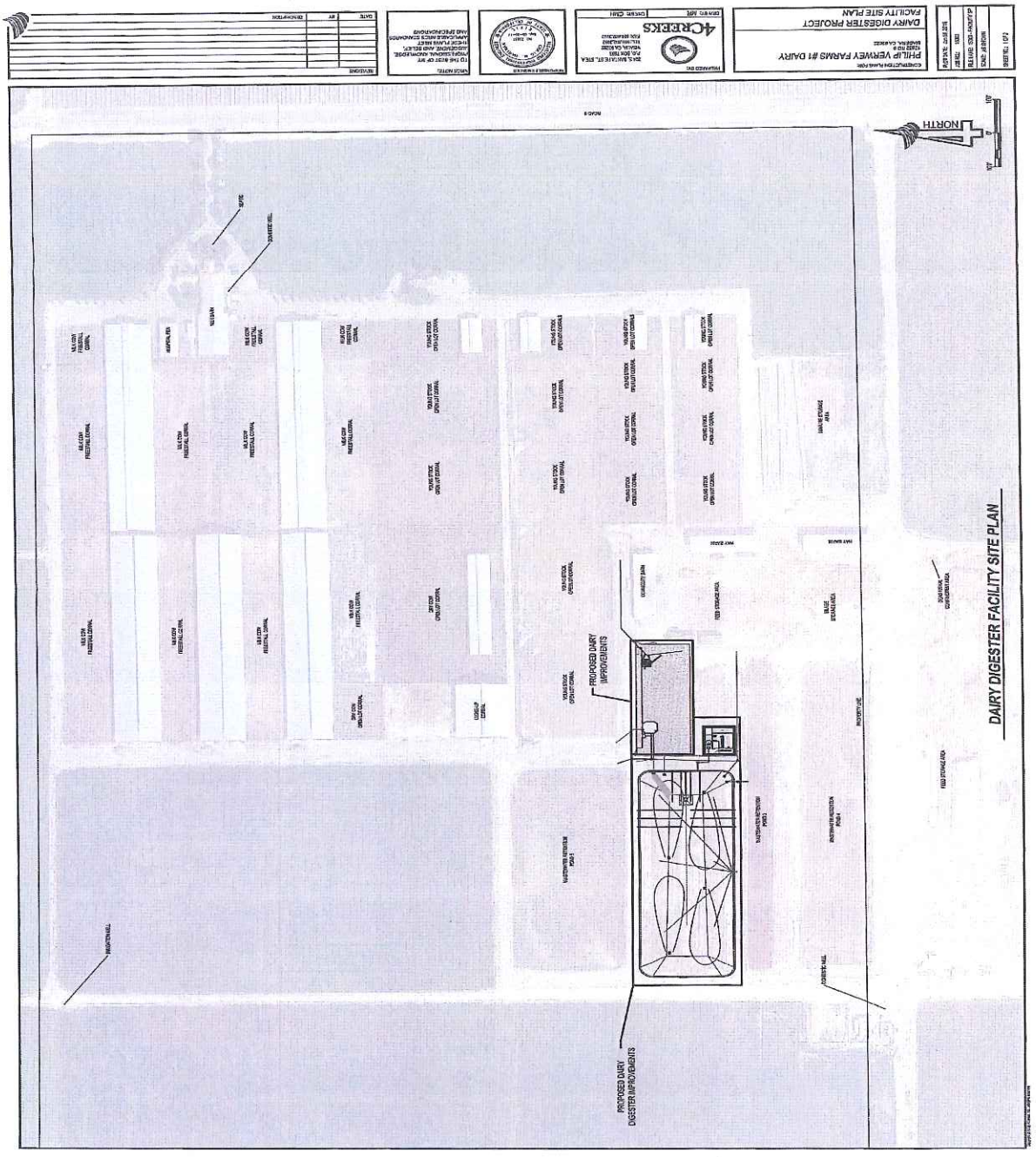
EXHIBIT C

EXHIBIT D



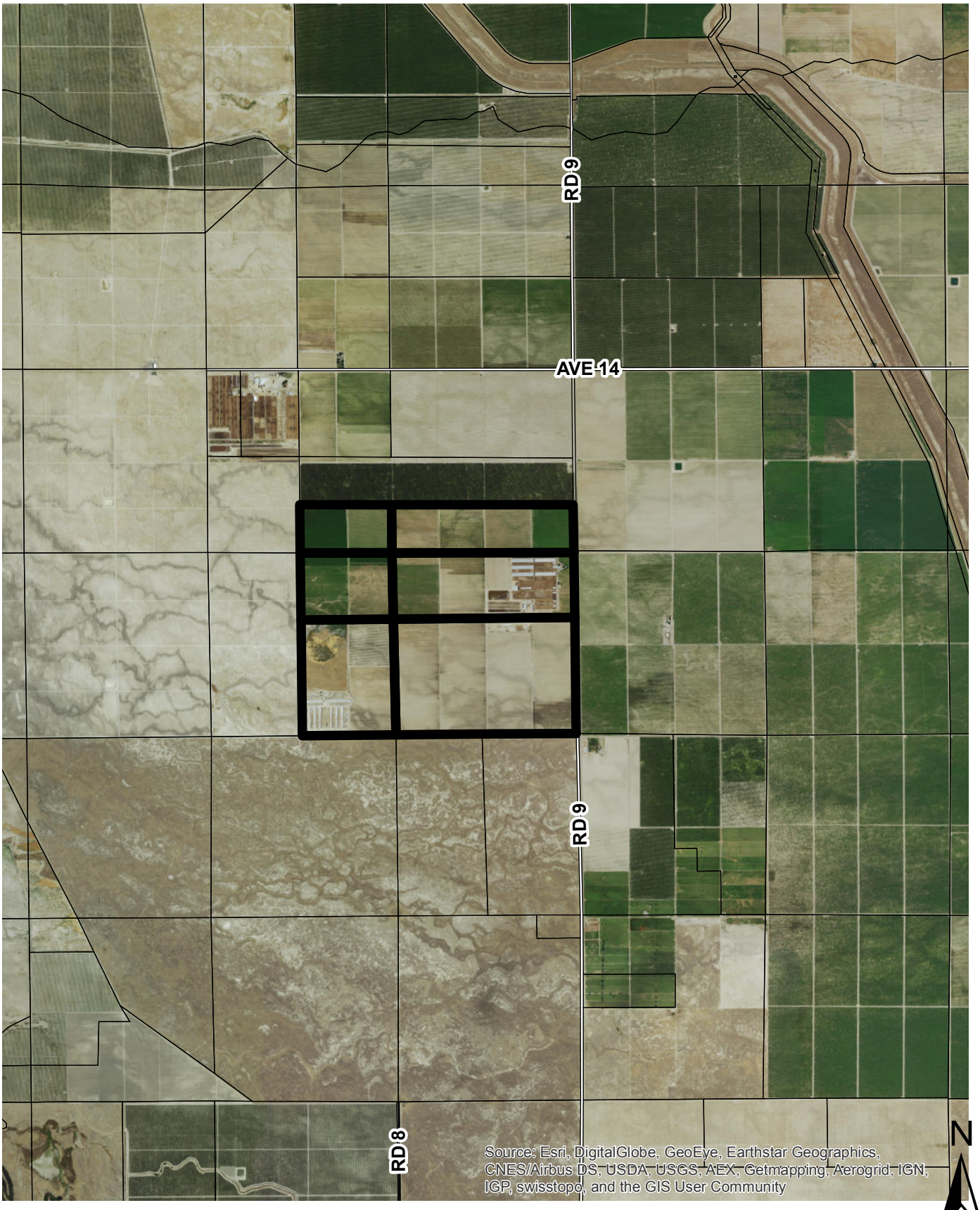
SITE PLAN

EXHIBIT D-1



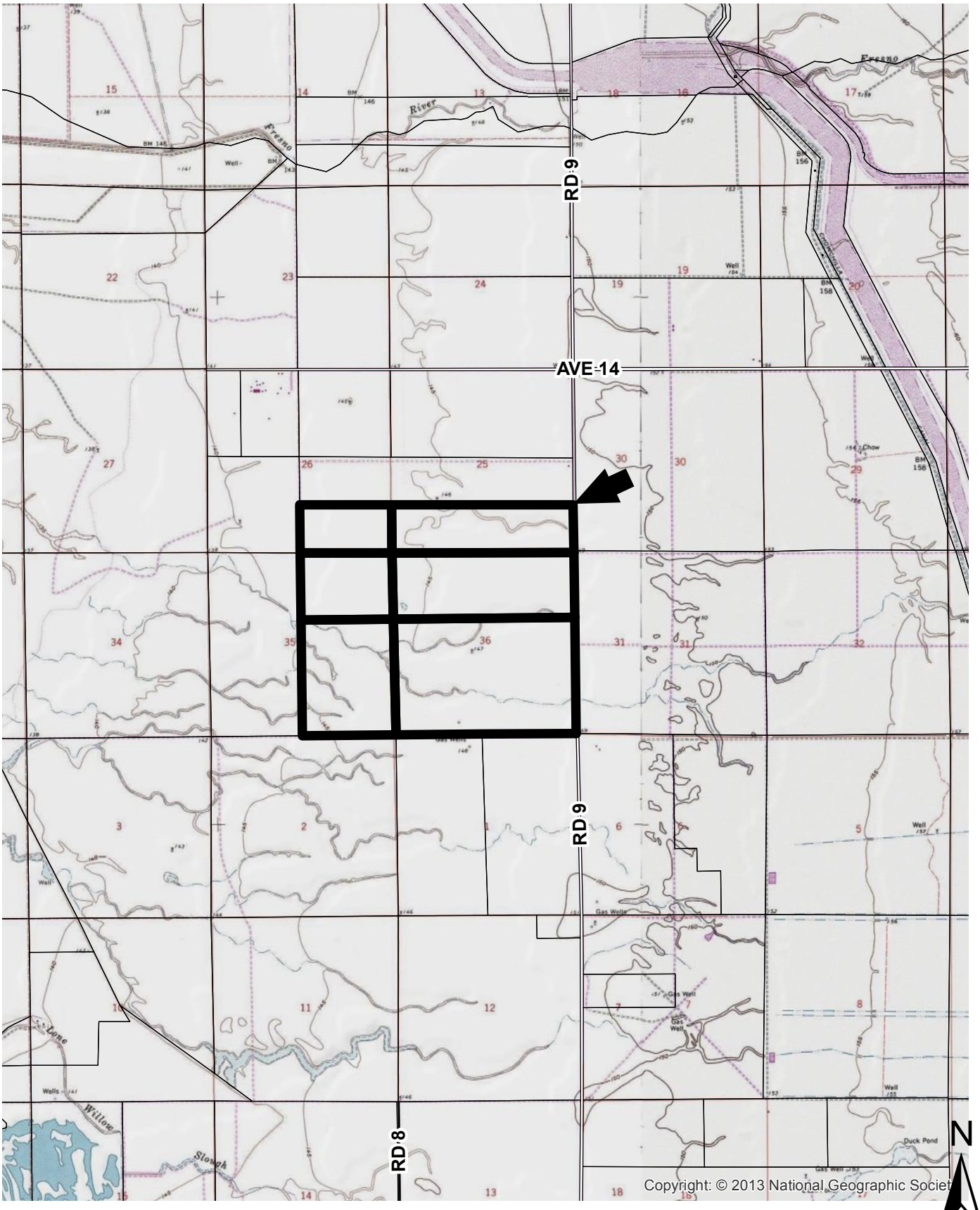
DAIRY SITE PLAN

EXHIBIT E



AERIAL MAP

EXHIBIT F



TOPOGRAPHICAL MAP

EXHIBIT G

Community and Economic Development
Planning Division

Norman L. Allinder, AICP
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

OPERATIONAL/ENVIRONMENTAL STATEMENT CHECKLIST

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

1. Please provide the following information:
   Assessor's Parcel Number: 043-076-003
   Applicant's Name: Philip Verwey
   Address: 12852 Road 9, Madera, CA, 93622
   Phone Number: 559-908-0836

2. Describe the nature of your proposal/operation.
   An Anaerobic Dairy Digester Project is proposed at the existing dairy. The digester will capture biogas, clean the gas and run a 0.8 MW engine and genset. The project is within the existing footprint of the dairy facility. The project will be owned and operated by the owner.

3. What is the existing use of the property?
   The existing use of the property is a dairy.

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 project will capture biogas that the existing manure already gasses. This biogas will be turned into electrons that will offset the agricultural facilities existing electrical use through the Net Energy Meter Program (NEM).

5. What are the proposed operational time limits?
   Months (if seasonal): 12 months a year
   Days per week: 7 days a week
   Hours (from____to _): Total Hours per day: 24 Hours a day

6. How many customers or visitors are expected?
   Average number per day: N/A
   Maximum number per day: N/A
   What hours will customers/visitors be there? N/A

7. How many employees will there be?
   Current: 0
   Future: 1
   Hours they work: 30 Hours a week
   Do any live onsite? If so, in what capacity (i.e. caretaker)? They do not live on site.

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

Spare parts, oil, and other miscellaneous parts will be stored in a 40 ft. by 60 ft. prefabricated metal building. See photos in Attachment A

Two existing separation ponds will be converted to one digester vessel. A engine and genset will sit in the metal building.

9. Will there be any service and delivery vehicles? On occasion there may be maintenance or delivery vehicles.

Number: One

Type: Pick up truck

Frequency: Estimated at 30-40 hours per week

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

There will be a parking area with decomposed granite for 4 vehicles.

11. How will access be provided to the property/project? (street name)

Access will be provided from Road 9, then through the existing facility maintained roads.

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

Vehicle associated with one employee per day

13. Describe any proposed advertising, inlcuding size, appearance, and placement.

There will not be any advertising or signage for this project.

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

The proposed project will include one new building. This building will contain the motor and genset, electrical

switchgear and panels, and a small office/control room. See Draft Floor Plan in Attachment 2. The building will be a prefabricated metal building on a concrete foundation,

approximately 18 ft. tall, with a color to match existing barns on dairy, tan siding and rust colored roof (See photo of example building in Attachment A).

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

None proposed

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

Agricultural Use is all directions.

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

No

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

The facility dose not use fresh water. The digester receives process water and wastewater from the dairy, but doesn't use or require any additional water.

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 project doesn't generate any wastewater, but treats existing wastewater from the dairy.

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

The project wastes are limited to approximately 50 gallons of oil every few months. This oil is recycled and hauled offsite through a certified vendor.

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

There will be grading for the digester vessel which will be located where the existing separation ponds are located. Additonally there will be grading the metal building and some other minor concrete structures to improve the manure wastewater handling.

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

None, this is all on an existing dairy currently in use today.

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

There are not any adjacent water bodies to the project. The nearest water body is approximately 2.5 miles east of the project site.

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

None are present

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

No hazardous materials or waste will be produced on the site.

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

No public services required on a scheduled basis, however the ability to use fire and police as needed is warranted.

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

This project is designed to mitigate the existing environmental impacts of the dairy facility.

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

There should be no impact on existing community services

29. If your proposal is for commercial or industrial development, please complete the following; Proposed Use(s): Anaerobic digestion with associated electric generation

Square feet of building area(s): 2,400 sf. building, 1 covered lagoon digester vessel

Total number of employees: one

Building Heights: 18

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

NA

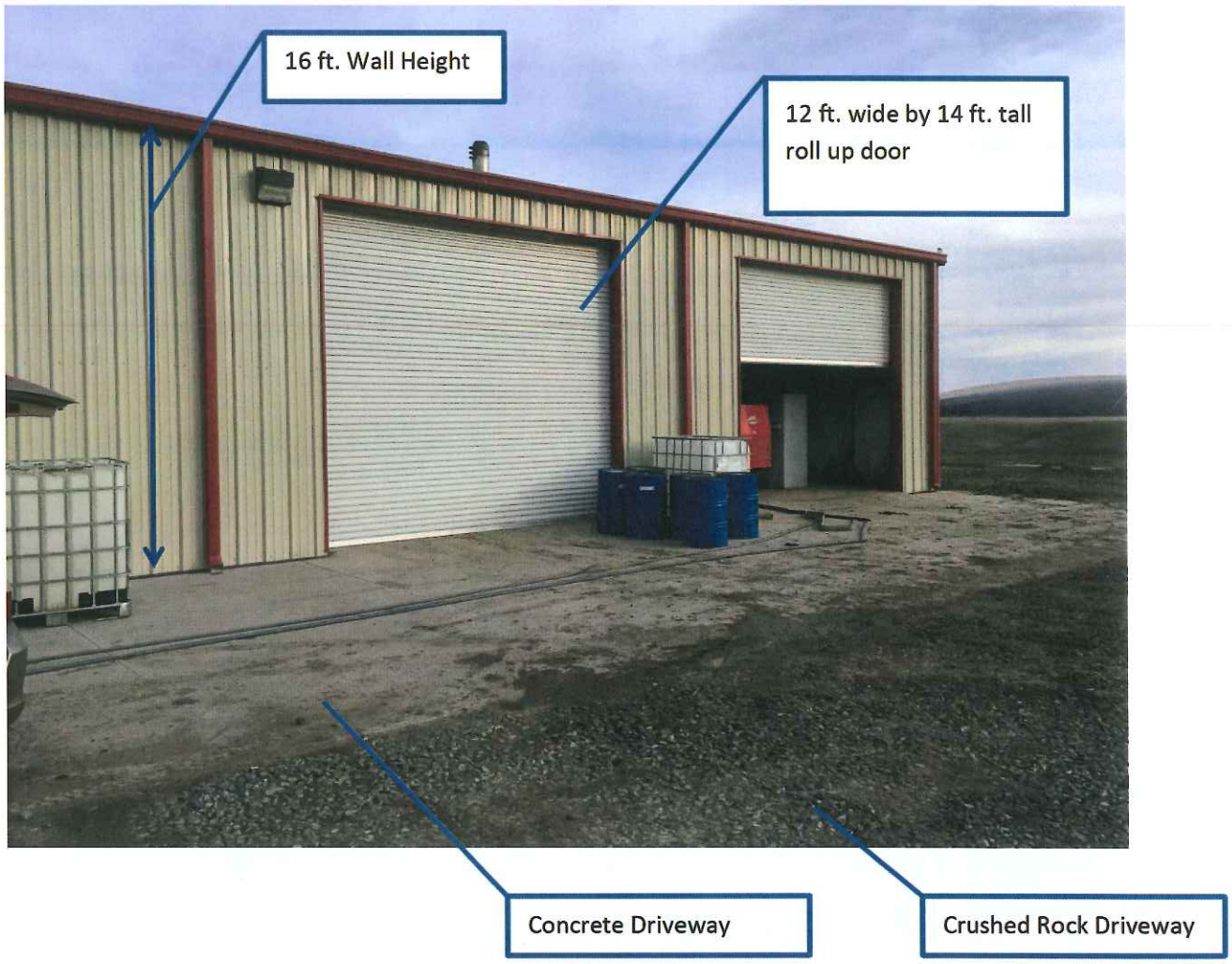
ATTACHMENT A

Figure 1: Metal Mechanical Building with gas conditioning equipment slab

Figure 2: Inside Metal Building, looking at engine and genset

Figure 3: Example photo of lagoon digester vessels

Verwey Madera Proposed Digester – Building Elevations



LOOKING WEST

Verwey Madera Proposed Digester – Building Elevations

LOOKING EAST

EXHIBIT H

DIGESTER OPERATIONAL PLAN

PHILIP VERWEY FARMS # 1 DAIRY

MADERA, CALIFORNIA

4CREEKS

February 1, 2016

DIGESTER OPERATIONAL PLAN

PHILIP VERWEY FARMS # 1 DAIRY

12852 ROAD 9
MADERA, CA 93637

February 1, 2016

COMPLETED BY:

324 S. SANTA FE ST., SUITE A
VISALIA, CA 93292
(559) 802-3052

SUBMITTED TO:

Madera County Community & Economic Development
Planning and Building Division
200 W. Fourth Street, Suite 3100, Madera, CA 93637

TABLE OF CONTENTS

Introduction

The following is to describe the operational changes to the existing facility and detail impacts created of mitigated by the proposed anaerobic digester.

I. Existing Dairy Facility Description

A. Name of the Facility & County Location

Facility Name:	Philip Verwey Farms #1 Dairy
County:	Madera County

B. Facility Location

Address:	12852 Road 9), Madera, CA 93637
Assessor's Parcel Number:	043-076-003, 043-075-005, 043-073-006, 043-074-003, 043-074-004, 043-076-005

C. Responsible Party

Owner:	Verwey Family Revocable Trust 19765 13th Avenue Hanford, CA 93230 (559) 908-0836
Contact Person:	Philip Verwey 19765 13th Avenue Hanford, CA 93230 (559) 908-0836

D. Dairy Animal Population

The present number and maximum number of the dairy animal population are summarized in Table 1. This project will not increase or decrease animal units.

Table 1: Dairy Profile

Type of Animal	*Permitted Number of Animals Before and After Digester*	*Breed*
Milking Cows	3,295	Holstein
Dry Cows	494	Holstein
Heifers: 15-24 mo.	225	Holstein
Heifers: 7-14 mo.	1250	Holstein
Heifers: 4 - 6 mo.	413	Holstein
Calves: up to 3 mo.	0	-
Total Herd Size	0	

II. Proposed Project

A. Project Overview

The proposed digester will be located at the existing dairy next to the existing ponds. The Digester will not modify the winter storage requirements. The input to digester will only come from the existing dairy and will be improved with mechanical separations and a sand lane from what was going straight into the retention pond before the proposed project. The proposed digester will be placed before the retention pond the in the existing process. This will reduced the amount of solids in the retention pond, however will not change the amount of solids exported off site per the Nutrient Management Plan.

The digester will produce Biogas, which is principally composed of 60-70% methane and 30-40% carbon dioxide. The biogas will be piped to a gas conditioning system which will remove Hydrogen Sulfide (H_2S) and moisture. The gas conditioning system consists of a chiller to lower the temperature of the gas for moisture removal and an iron sponge system to scrub the H_2S in the gas.

The following table shows the required CEQA Permits for the Proposed Digester Project. To obtain CEQA approval, there are many more required permits, but the scope of this Operational plan is to conform to the CEQA requirements for determination of impacts for the County Site Plan Review Process

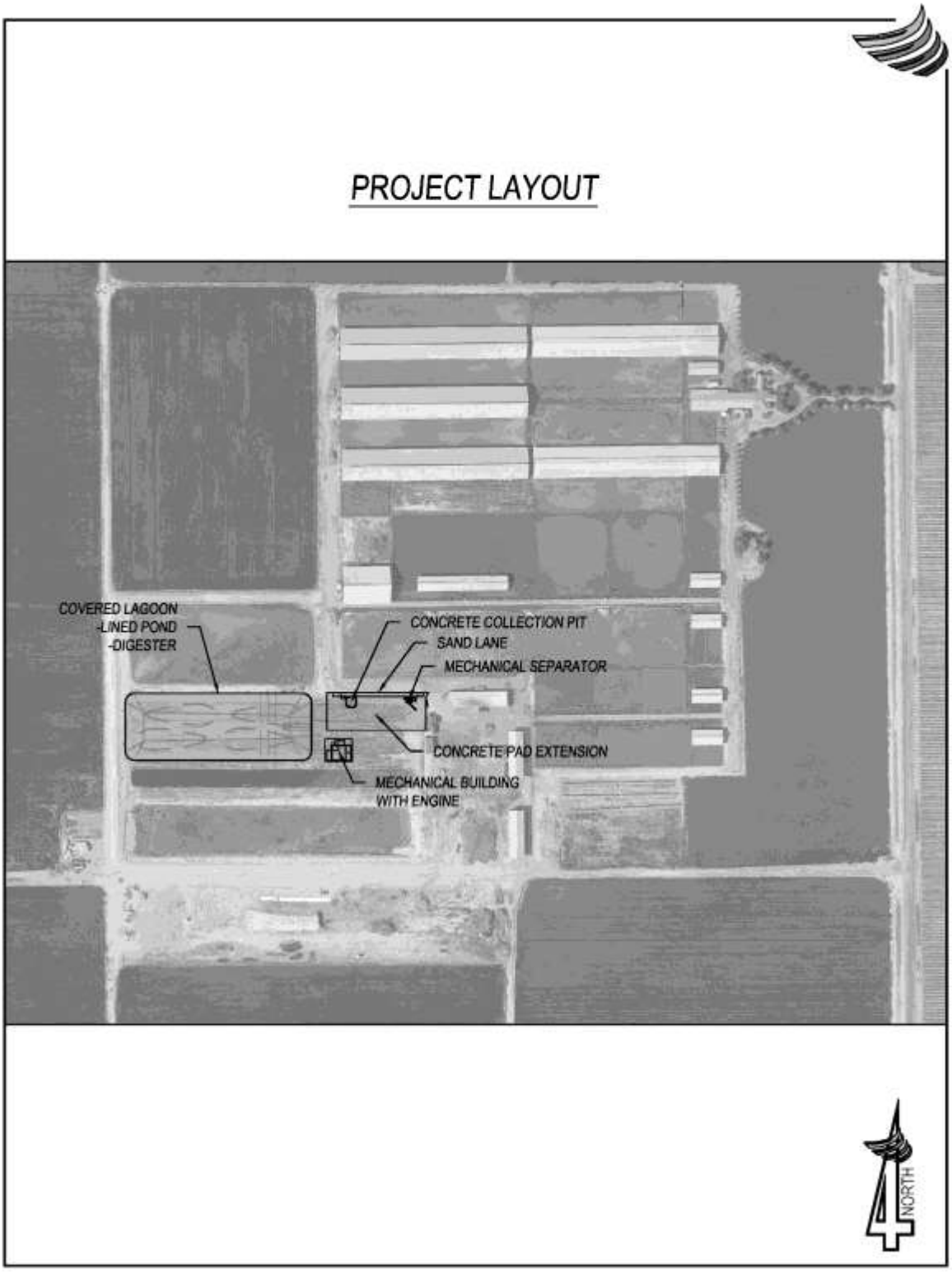


Figure 1: Project Layout

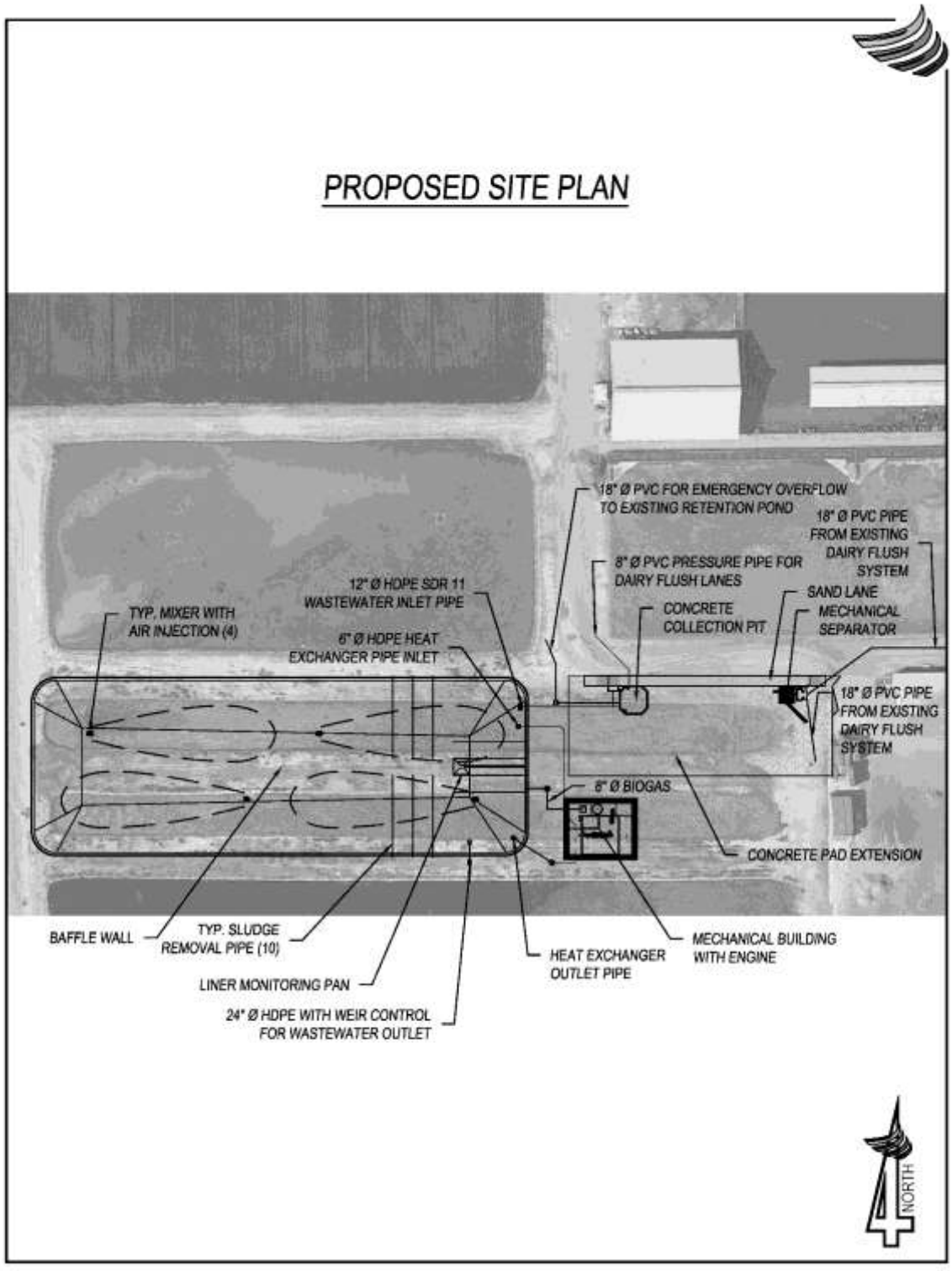


Figure 2: Proposed Site Plan

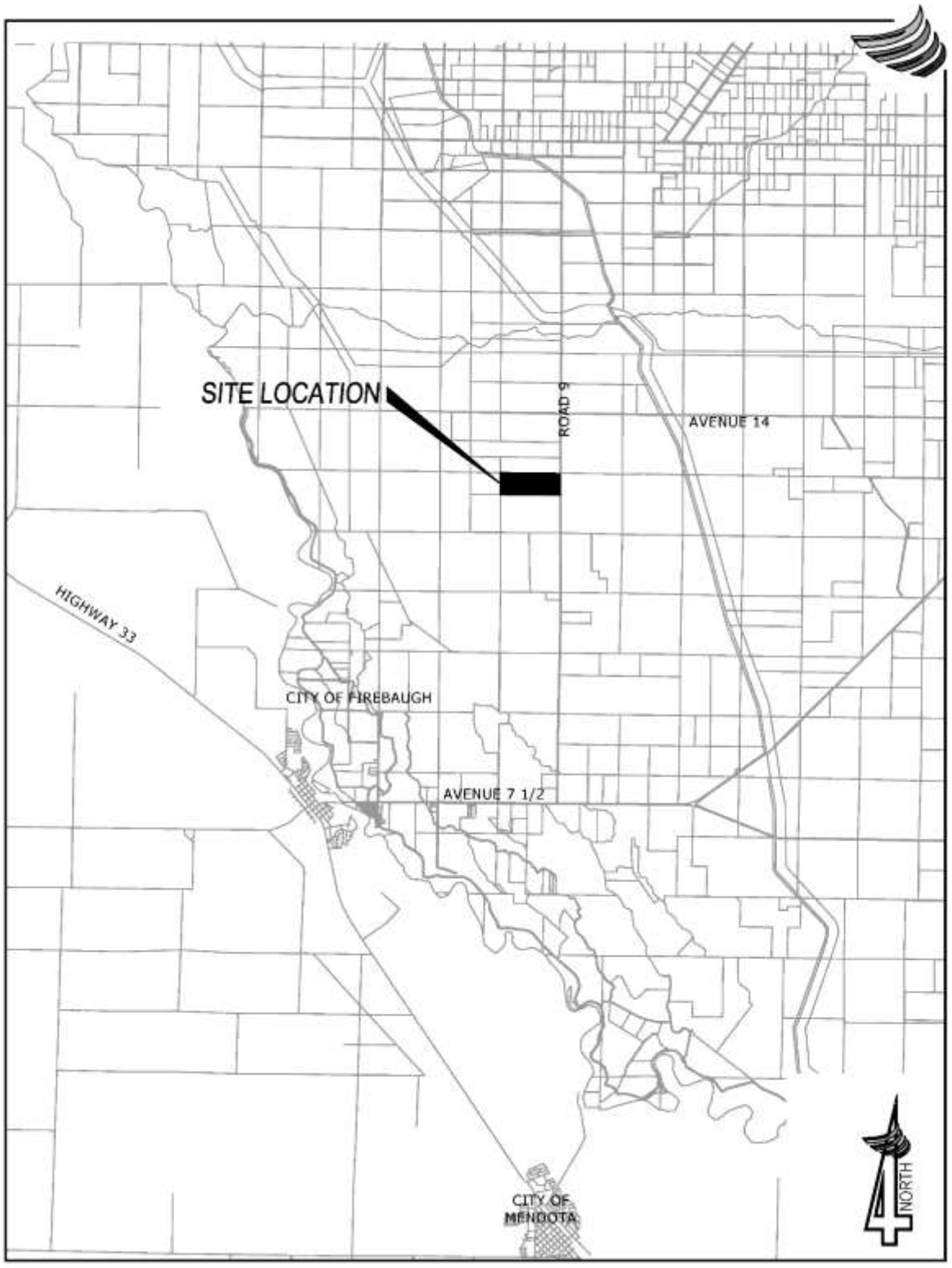


Figure 3: Vicinity Map

Table 2: Required CEQA Approvals

Agency	*Permit*
Madera County	Revised Conditional Use Permit
San Joaquin Valley Air Pollution Control District	Authority to Construct
Regional Water Quality Control Board	Waste Discharge Requirements

B. Operational Time

The dairy operates 24 hours a day, seven days a week. The digester will similarly operate 24 hours a day, seven days a week.

C. Customers/Visitors/Employees

The amount of existing dairy customers and visitors is not expected to change. There will be one additional full time employee to operate and maintain the digester project.

D. Service and Delivery Vehicles

The engine requires oil as part of its maintenance schedule approximately every 200 days, and the oil will be delivered to the site by the same oil truck that is provides service to the dairy. Other miscellaneous parts and supplies should have minimal impact to the existing service and delivery vehicles that work for the dairy.

E. Access to the site/Parking Area

A concrete slab with additional all weather surface will provide access and parking areas for the digester. Trucks and employees servicing the digester will access the site using the same facilities as the existing trucks and dairy employees.

F. Digester Effluent

The effluent from the digester will flow into the existing retention pond. The retention pond will be applied to agricultural fields at rates per the approved Nutrient Management Plan.

G. Water Resources

The digester doesn't change the use of water to the facility. There is no additional water required from the project.

H. Biogas Treatment

The biogas produced by the digester is treated under the cover through a biological reaction causing hydrogen sulfide to form elemental sulfur to be returned to the fields as a fertilizer. Additionally the gas will be polished further to remove hydrogen sulfide to permitted levels through an iron sponge. The byproduct is removed on a periodic basis.

I. Biogas Transmission

The biogas is collected and burned in the engine to traduce electricity. There is further discussion on this topic in the following section of this plan.

J. Noise

A Noise Study was performed for the Technical Report of the Site Plan Review and shows no significant impact with the Engine within the building.

K. Glare/Dust/Odor

The proposed digester will not add substantial lighting or glare that would impact views. There will be no increase to dust. The digester will reduce a significant amount of odor which will vary based upon the time of year.

L. Additional Non-Applicable Items

There isn't any proposed signage, advertisement, landscaping, fencing, outdoor lighting or sound amplification systems.

III. Facility Wastewater Modifications from Digester

A. Digester

The proposed digester will be located in the process flow after the proposed mechanical slope screens that separate fiber and sand lane, and before the existing retention pond. The digester will not create any changes to the amount of solids generated from the facility.

The water will flow from the screens and sand lane to the lined retention pond will be piped through the lined pond with a cover, digester, prior to flowing by gravity to the existing retention pond.

The Proposed Digester is a covered lined pond (Figure 1) that is a plug flow, as material is added the same amount leaves. The pond liner shall meet the Tier 1 Double Lined Pond requirements of the Regional Water Quality Control Board.

See the following Figures 2 and 3 for Process Flow Diagrams of the existing Dairy and the Proposed Dairy with a Digester. The digester has a long wall in the center to force the flow down half then to turn 180 degrees and make the return length of the pond. The wastewater is retained in the digester for approximate 30 days. In this anaerobic condition the microbes digest the material, creating Biogas. The Biogas is a greenhouse gas that would otherwise escape to the atmosphere. By capturing the gas and burning, the greenhouse gas potential is reduced.

There will be a concrete box with weir boards to control the flow rate if necessary on the end of the digester.

Figure 1: Covered Lagoon/Pond Digester

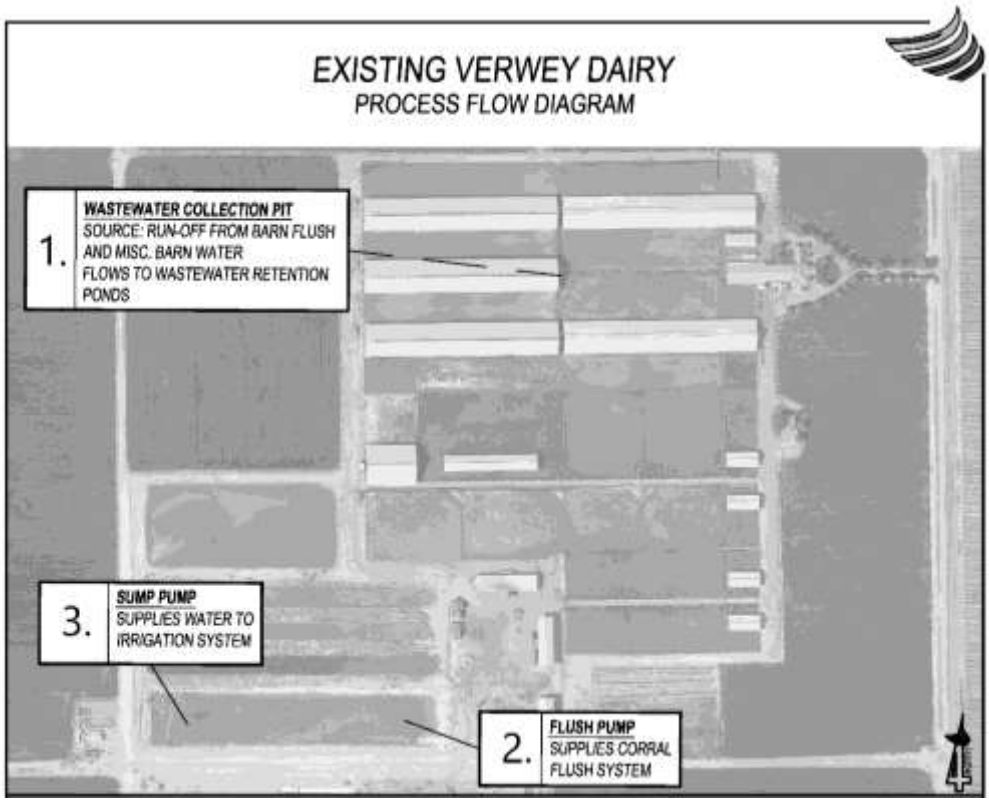


Figure 2: Existing Process Flow Diagram

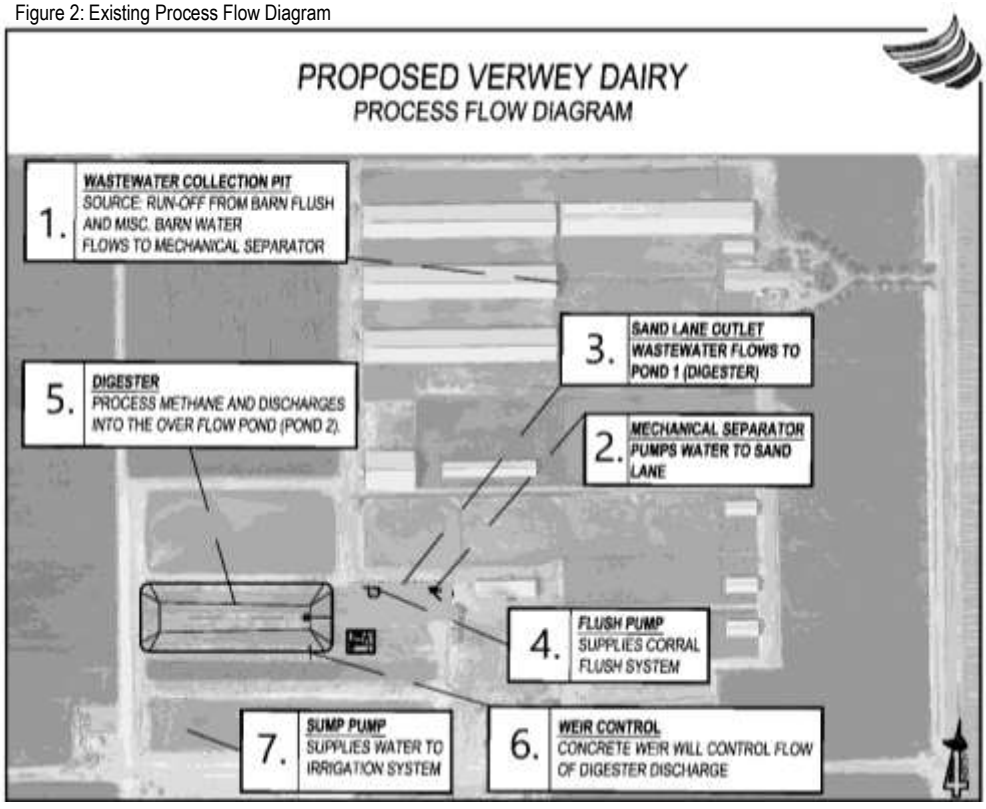


Figure 3: Proposed Process Flow Diagram with Digester

B. Engine

The second component of the digester system, and the main activity of this project, will be the new 800 kW combined heat and power engine-generator (genset) unit. The prime mover is a SFGLD-560 lean burn reciprocating internal combustion engine. The performance of the engine shall meet the San Joaquin Valley Air Pollution Control Distrcts requirements to obtain an Authority to Construct. The facility proposed is to be permitted and built to expand up to 1.8 kW total.

The system comes with a manufacturer's warranty, which is attached to this section. The engine will be mated to a Stamford LVI634G 1,000 kWe synchronous generator by Martin Energy Group. The combined electric rating of the system is 1000 kW, generating at 480V. The genset will be connected to the PG&E 12.47 kV distribution line through the existing on site pad-mounted transformer with a Beckwidth M3410A protective relay providing protection or similar as required by the utility.

The electricity that is produced from the generator goes through a CoMap controller, provided by Martin Energy Group, to synchronize the output to the utilities operating parameters to not affect the utilities current operating conditions. The electricity is produced at 480V and passes through the synchronizing equipment and protective breakers, through a meter that records the amount of electricity produced, then through a transformer to increase the voltage from 480V to 12.47kV which is the voltage on the utilities distribution line, then onto the utilities distribution line.

The expected annualized average electrical generation is 874 kW, or 7,654,748 kWh per year. This equipment operates automatically, with remote monitoring equipment allowing user interface. All operational data is logged for later retrieval. This genset will be installed in a mechanical building, and all auxiliary systems supplied by the manufacturer.

The system is designed to ensure public safety, and will comply with applicable laws, regulations, agreements, permits, codes, and standards. Evidence of this compliance will be required through the required permitting agencies review process.

Figure 4: Proposed Engine within Building

EXHIBIT I

Community and Economic Development
Environmental Health Division
Dexter Marr, Deputy Director

200 West 4th Street
Madera, CA 93637
(559) 675-7823

MEMORANDUM

TO: Robert Mansfield

FROM: Dexter Marr, Environmental Health Division

DATE: March 16, 2016

RE: Verwey Dairy - Conditional Use Permit - Firebaugh (043-076-003-000)

Comments

TO:Planning Department

FROM:Environmental Health Division

DATE:February 16, 2016

RE:Conditional Use Permit (CUP) #2016-002, Verwey Dairy – Firebaugh,
APN: 043076003

Environmental Health Division Comments:

All on-site well(s) Agriculture, Domestic, and/or Public wells must maintain setback requirements under Regional Water Quality Control Board (RWQCB) Water Well Standards, and Madera County Code Chapter 13.52 and Chapter 14.20. All surface water runoff shall be diverted away from any water well(s) and/or sewage disposal system(s) on or around surrounding property.

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

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

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

The construction and then ongoing operation must be done in a manner that shall not allow any type of

public nuisance(s) to occur including but not limited to the following nuisance(s); Dust, Odor(s), 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.

During the application process for required County permits, a more detailed review of the proposed project's compliance with all current local, state & federal requirements will be reviewed by this department. The owner/operator of this property must submit all applicable permit applications to be reviewed and approved by this department prior to commencement of any work activities.

If there are any questions or comments regarding these conditions/requirements or for copies of any Environmental Health Permit Application forms please, feel free to contact this department at (559) 675-7823, M-F, 8:00 am to 5:00 pm.

EXHIBIT J

Community and Economic Development

Fire Protection Division

DEBORAH KEENAN
MADERA COUNTY FIRE MARSHAL

200 W. 4th Street
MADERA, CALIFORNIA 93637
(559) 661-6333
(559) 675-6973 FAX

MEMORANDUM

TO: Robert Mansfield

FROM: Deborah Keenan, Fire Marshal

DATE: February 17, 2016

RE: Verwey Dairy - Conditional Use Permit - Firebaugh (043-076-003-000)

Comments

Fire has no conditions to apply to the CUP. Conditions will address compliance with state law at building permit application.

EXHIBIT K

COUNTY OF MADERA
DEPARTMENT OF PUBLIC WORKS

AHMAD M. ALKHAYYAT
INTERIM 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 5, 2016

TO: Robert Mansfield

FROM: Leopoldo Espino, Public Works

SUBJECT: Verwey Dairy - Conditional Use Permit - Firebaugh (043-076-003-000)

Comments

February 5, 2016
RE: CUP #2016-002

Proposed project location is in s FEMA Special Flood Hazard Area and any proposed structures will be required to built according to FEMA National Flood Insurance Program Standards.

Leopoldo Espino
Engineer I

Madera County Public Works Department
Capital Improvement Projects Division
200 W. 4th Street, 3rd Floor
Madera, CA 93637
P 559.675.7811 ext 3106
F 559.675.7631
leopoldo.espino@co.madera.ca.gov

EXHIBIT L

COUNTY OF MADERA
DEPARTMENT OF PUBLIC WORKS

AHMAD M. ALKHAYYAT
INTERIM 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: March 16, 2016

TO: Robert Mansfield

FROM: Phu Duong, Public Works

SUBJECT: Verwey Dairy - Conditional Use Permit - Firebaugh (043-076-003-000)

Comments

The Public Works department has reviewed the CUP#2016-002 - Philip Verwey Farms #1 Dairy located at 12852 Road 9, Madera, CA 93637. The Department has the following conditions and/or requirements prior to the approval of the proposed development:

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

For any new structures or buildings to be added on site, the applicant is required to submit a grading, drainage plan, and any applicable drainage storage calculations to the Public Works Department for review and approval. This plan shall identify onsite retention for any potential increase in storm water runoff generated by the proposed development. The grading, drainage plan, and calculations shall be prepared by a licensed professional.

If applicable, 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.

If applicable, 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.

EXHIBIT M

Environmental Checklist Form

Title of Proposal: CUP #2016-002 – Verwey Dairy, Dairy Digester Facility

Date Checklist Submitted: February 25, 2016

Agency Requiring Checklist: Madera County CE&D, Planning Division

Agency Contact: Robert Mansfield, AICP **Phone:** (559) 675-7821

Description of Initial Study/Requirement

The Initial Study is a public document used by the decision-making lead agency to determine whether a project may have significant effects on the environment. In the case of the proposed project, the Madera County Planning Department, acting as lead agency, will use the initial study to determine whether the project has a significant effect on the environment. In accordance with CEQA, Guidelines (Section 15063[a]), an environmental impact report (EIR) must be prepared if there is substantial evidence (such as results of the Initial Study) that a project may have significant effect on the environment. This is true regardless of whether the overall effect of the project would be adverse or beneficial. A negative declaration (ND) or mitigated negative declaration (MND) may be prepared if the lead agency determines that the project would have no potentially significant impacts or that revisions to the project, or measures agreed to by the applicant, mitigate the potentially significant impacts to a less-than-significant level.

The initial study considers and evaluates all aspects of the project which are necessary to support the proposal. The complete project description includes the site plan, operational statement, and other supporting materials which are available in the project file at the office of the Madera County Planning Department.

Description of Project:

The Conditional Use Permit is to amend an existing Conditional Use Permit to allow for the reconfiguration of the dairy digester.

Project Location:

The subject property is located on the west side of Road 9, approximately 0.98 of a mile south of its intersection with Avenue 14 (12852 Road 9) Madera.

Applicant Name and Address:

Verwey, Joe
12852 Road 9
Madera, CA

4Creeks
P.O. Box 7593
Visalia, CA 93290

General Plan Designation:

AE (Agricultural Exclusive)

Zoning Designation:

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

Surrounding Land Uses and Setting:

Agricultural

Other Public Agencies whose approval is required:

None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

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

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

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

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

☐ _____
Prior EIR or ND/MND Number

_____
Signature

February 25, 2016
Date

I. AESTHETICS -- 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?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion:

(a - b) No Impact. There are no scenic vistas in the vicinity of this project site. The closest areas that are being considered as scenic highways by the California Department of Transportation (CALTRANS) are Highways 41 and 49 north of Oakhurst.

There are no scenic resources in the vicinity of this project.

(c) No Impact. The area surrounding this property is sparsely populated. While agriculturally zoned, and the surrounding parcels are similarly zoned, the surrounding parcels can potentially have residential development (limited per zoning ordinance) sometime in the future. As it is currently, the immediate surrounding area is agricultural in use, so the impacts will not be of major significance.

The infrastructure related to this project are designed to blend in with other infrastructure related to the dairy, therefore will not be an impact

(d) Less than Significant Impact. There will be potentially new lights as a result of this project, thus increasing, even slightly, the "light pollution" of the area. It will not be significant in light of the whole, however with mitigations and conditions of approval associated with this project, the impact can be lessened and/or maintained to less than significant.

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 subset because the angle of the sun is lower during these times.

II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California 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:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resource Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526) or timberland zoned Timberland Protection (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest land?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion:

(a - e) No Impact. The area surrounding this parcel is agriculturally zoned. The subject parcel is also agriculturally zoned and 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 indicating forest land, in the vicinity of the project site.

The property involved in this project is considered Prime Farmland under the Farmland Mapping and Monitoring Program of the California Resources Agency.

The project will not violate the intent of the zoning ordinance in that the proposal is consistent with the requirements of the zone.

The project is on a parcel that is enrolled in the Williamson Act.

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) produce 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 farmland classification 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 nonirrigated 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.

III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Discussion:

(a - d) No Impact. No negative impacts anticipated as a result of this project.

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.

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 pollution. Hospitals, schools, convalescent facilities and residential areas are examples of sensitive receptors." (GAMAQI, 2002).

There is no residential development on surrounding parcels, with the exception of that found for this particular dairy. There are no schools or hospitals or other areas of similar note.

(e) Less than Significant Impact. While there are residences on the property, the area is not densely populated, therefore pollutants and odors have the potential of dispersing and not have a concentrated effect. However, due to the nature of the work associated with the business, there are odors being generated.

The project as proposed may not reduce the odor generation of the underlying operations by any significant amount, it will not increase the odor generation either.

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.

Global Climate Change

Climate change is a shift in the "average weather" that a given region experiences. This is measured by changes in temperature, wind patterns, precipitation, and storms. Global climate is the change in the climate of the earth as a whole. It can occur naturally, as in the case of an ice age, or occur as a result of anthropogenic activities. The extent to which anthropogenic activities influence climate change has been the subject of extensive scientific inquiry in the past several decades. The Intergovernmental Panel on Climate Change (IPCC), recognized as the leading research body on the subject, issued its Fourth Assessment Report in February 2007, which asserted that there is "very high confidence" (by IPCC definition, a 9 in 10 chance of being correct) that human activities have resulted in a net warming of the planet since 1750.

CEQA requires an agency to engage in forecasting "to the extent that an activity could reasonably be expected under the circumstances. An agency cannot be expected to predict the future course of governmental regulation or exactly what information scientific advances may ultimately reveal" (CEQA Guidelines Section 15144, Office of Planning and Research commentary, citing the California Supreme Court decision in *Laurel Heights Improvement Association* v. *Regents of the University of California* [1988] 47 Cal. 3d 376).

Recent concerns over global warming have created a greater interest in greenhouse gases (GHG) and their contribution to global climate change (GCC). However at this time there are no generally accepted thresholds of significance for determining the impact of GHG emissions from an individual project on GCC. Thus, permitting agencies are in the position of developing policy and guidance to ascertain and mitigate to the extent feasible the effects of GHG, for CEQA purposes, without the normal degree of accepted guidance by case law.

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?	☐	☐	☐	☒
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 US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion:

(a - f) No Impact. While species have been identified as being potentially in the quadrangle of this project, no impacts to those species have been identified as a result of this project, directly or indirectly. There are no vernal pools or habitats identified on the project site, nor any that would be impacted directly or indirectly as a result of this project. There are no federally identified wetlands on the project site. The parcel already has a structure 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.

As 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 habits 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, it 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 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 this project.

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.

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 both the County's and Department of Fish and Game's databases for special status species have identified the following species:

Species	Federal Listing	State Listing	Dept. of Fish and Game Listing	CNPS Listing
Swainson's Hawk	None	Threatened	None	None
Great Egret	None	None	None	None
Great Blue Heron	None	None	None	None
Steelhead – Central Valley	Threatened	None	None	None

DPS				
San Joaquin Kit Fix	Endangered	Threatened	None	None
Blunt Nosed Leopard Lizard	Endangered	Endangered	FP	None
Giant Garter Snake	Threatened	Threatened	None	None
Coast Horned Lizard	None	None	SSC	None
Valley Sacaton Grassland	None	None	None	None
Heartscale	None	None	None	1B.2
Lesser Saltscale	None	None	None	1B.1
Palmate-bracted Salty Bird's-beak	Endangered	Endangered	None	1B.1

Poso Farm 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

FP Fully Protected

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 was listed as a threatened species in 1980. Use of the elderberry bush by the beetle, a wood borer, is rarely apparent. Frequently, the only exterior evidence of the elderberry's use by the beetle is an exit hole created by the larva just prior to the pupal stage. According to the USFWWS, the Valley Elderberry Longhorn Beetle habitat is primarily in communities

of clustered Elderberry plants located within riparian habitat. The USFWS stated that VELB habitat does not include every Elderberry plant in the Central Valley, such as isolated, individual plants, plants with stems that are less than one inch in basal diameter or plants located in upland habitat.

V. CULTURAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Discussion:

(a - d) No Impact. While the County is known to potentially have historical and archaeological resources, due to the agricultural aspects of this subject parcel and that of surrounding properties, the chances of finding any archaeological or paleontological resources are 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, 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 Section 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.

Reference CEQA Guidelines §15064.5 for definitions.

VI. GEOLOGY AND SOILS -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Discussion:

(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 Nevada's.

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 parcel involved with this project is topographically flat, therefore landslides will not occur.

(b) Less than Significant Impact with Mitigation Incorporation. The site is already developed, with no new residential development planned as a result of this project. However, due to the existing structures, there will be some erosion pattern changes. These changes are considered minimal as topographically, the parcel is relatively flat. Erosion will occur even on topographically flat surfaces, the effect is not as great as one would expect to see on land that have any sort of incline. With the addition of the genset structure, and the covering of the lagoons used for the project, runoff will be diverted to areas that it may not have gone originally. This will create some runoff in heavy rain events, but with proper mitigations, this impact can be lessened to less than significant.

(c - e) No impact. There are no known impacts that will occur as a direct or indirect result of this project.

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

Discussion:

(a) Less Than Significant Impact. Dairies by definition would generate components of greenhouse gases by the decomposition process of cattle 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.

(b) No Impact. There is no anticipated impact as a result of this project.

VIII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Discussion:

(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.

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 the project.

(c) No Impact. While there are no schools or hospitals in the area, there are residences in the vicinity. No hazardous emissions are expected, and no hazardous materials are being proposed as a result of this project.

(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 are hazardous waste sites.

(e – f) No Impact. The project is not located within the vicinity of known airstrips and is not within the airport/airspace overlay districts of the county. No impacts have been identified.

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

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

IX. 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?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned	☐	☐	☐	☒

	stormwater drainage systems or provide substantial additional sources of polluted runoff?				
f)	Otherwise substantially degrade water quality?	☐	☐	☐	☒
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☒	☐	☐
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☒	☐	☐
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☒	☐	☐
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion:

(a - b) No Impact. No impacts have been identified as a result of this project. Minimal usage of water is expected, as well as minimal wastewater generation is expected, as there will be restroom facilities on site.

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.

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

(c – d) 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.

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

(g – i) Less than Significant Impact With Mitigation Incorporation. The area has been identified as being in a FEMA Special Flood Hazard Area. This will require any structure to be built according to FEMA National Flood Insurance Program Standards.

There are no residential structures associated with this proposed project. However, there will be a structure for the Genset equipment.

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

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 is an unusually large sea wave produced by seaquake or undersea volcanic eruption (from the Japanese language, roughly translated as "harbor wave"). 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.

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 is an unusually large sea wave produced by seaquake or undersea volcanic eruption (from the Japanese language, roughly translated as "harbor wave"). 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.

X. LAND USE AND PLANNING – Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion:

(a - c) No Impact. This project will not physically divide an existing community or be an impact on habitat conservation plans.

XI. MINERAL RESOURCES – Would the project result in:	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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion:

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

XII. NOISE – Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable	☐	☐	☒	☐

	standards of other agencies?			
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d)	A substantial temporary or periodic increase in ambient levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion:

(a) Less than Significant Impact. Minimal noise may occur as a result of the operations of the facility. The engine portion of the 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 with truck traffic. 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.

(b) Less than Significant Impact. With the exception of construction related activities, there is no known instance of groundborne vibrations related to this project.

(c) Less than Significant Impact. With the inclusion of the genset, even though it's inside a structure, there is the potential of a slight increase in ambient noise levels. This will be dependent on the construction of the structure and the duration the genset runs.

(d) Less Than Significant Impact. There will be a temporary increase to ambient noise levels as a result of construction operations.

(e – f) No Impact. The project is not within proximity to a known airport or airstrip. The project is not in an Airport/Airspace Overlay district.

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).

Sensitive Noise Receptors include residential areas, hospitals, schools, performance spaces, businesses, and religious congregations.

Vibrating objects in contact with the ground radiate energy through the ground. Vibrations from large and/or powerful objects are perceptible by humans and animals. Vibrations can be generated by construction equipment and activities. Vibrations attenuate depending on soil characteristics and distance. 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 vibration	Architectural damage and possibly minor structural damage
Source: Whiffen and Leonard 1971		

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

Discussion:

(a - c) No Impact. The construction of and operation of the facility will not have an impact on housing or population needs for the County or the area specifically. The surrounding area is predominately agriculturally zoned and sparsely populated.

According to the California Department of Finance, in January of 2012, the County wide population was 152,074 with a total of 49,334 housing units. This works out to an average of 3.33 persons per housing unit. The vacancy rate was 11.84%.

XIV. PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
ii)	Police protection?	☐	☐	☒	☐
iii)	Schools?	☐	☐	☐	☒
iv)	Parks?	☐	☐	☐	☒
v)	Other public facilities?	☐	☐	☐	☒

Discussion:

(a – i) Less than Significant Impact. The Madera County Fire Department exists through a contract between Madera County and the 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 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.

(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.

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 - v) No Impact. No impacts are anticipated as a result of this project as it does not relate to any educational programs, or increase the surrounding population.

Single Family Residences have the potential for adding to school populations. The average per Single Family Residence is:

Grade	Student Generation per Single Family Residence
K – 6	0.425

7 – 8	0.139
9 – 12	0.214

No impacts are anticipated as a direct, indirect, short or long term impact as a result of this project.

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

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

Discussion:

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

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

XVI. TRANSPORTATION/TRAFFIC -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not	☐	☐	☐	☒

	limited to, level of service standards and travel demand measures or other standards, established by the county congestion management agency for designated roads or highways?				
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e)	Result in inadequate emergency access?	☐	☐	☐	☒
f)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Discussion:

(a - f) No Impact. 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.

During the period of construction of the project, it is expected that there will be some construction related vehicles. The digester proposed in this project will not impact transportation or circulation concerns in the area.

Madera County currently uses Level Of Service "D" as the threshold of significance level for roadway and intersection operations. The following charts show the significance of those levels.

Level of Service	Description	Average Control Delay (sec./car)
A	Little or no delay	0 – 10
B	Short traffic delay	>10 – 15
C	Medium traffic delay	> 15 – 25
D	Long traffic delay	> 25 – 35
E	Very long traffic delay	> 35 – 50
F	Excessive traffic delay	> 50

Unsignalized intersections.

Level of Service	Description	Average Control Delay (sec./car)
A	Uncongested operations, all queues clear in single cycle	< 10
B	Very light congestion, an occasional phase is fully utilized	>10 – 20
C	Light congestion; occasional queues on approach	> 20 – 35
D	Significant congestion on critical approaches, but intersection is functional. Vehicles required to wait through more than one cycle during short peaks. No long-standing queues formed.	> 35 – 55
E	Severe congestion with some long-standing queues on critical approaches. Traffic queues may block nearby intersection(s) upstream of critical approach(es)	> 55-80
F	Total breakdown, significant queuing	> 80

Signalized intersections.

Level of service	Freeways	Two-lane rural highway	Multi-lane rural highway	Expressway	Arterial	Collector
A	700	120	470	720	450	300
B	1,100	240	945	840	525	350
C	1,550	395	1,285	960	600	400
D	1,850	675	1,585	1,080	675	450
E	2,000	1,145	1,800	1,200	750	500

Capacity per hour per lane for various highway facilities

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).

Horizon Year	Total Population (thousands)	Employment (thousands)	Average Weekday VMT (millions)	Total Lane Miles
2010	175	49	5.4	2,157
2011	180	53	5.5	NA
2017	210	63	6.7	NA
2020	225	68	7.3	2,264
2030	281	85	8.8	2,277

Source: MCTC 2007 RTP

The above table displays the predicted increase in population and travel. The increase in the lane miles of roads that will serve the increase in VMT is estimated at 120 miles or 0.94 percent by 2030. This indicates that roadways in Madera County can be expected to become much more crowded than is currently experienced.

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.

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.

No structures associated with this project will interfere with air flight.

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

XVII. UTILITIES AND SERVICE SYSTEMS – Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion:

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

Effluent from the digester will flow to the on-site retention pond, which then will be applied to the agricultural fields pursuant to the Nutrient Management Plan established for the dairy.

The proposed digester is a covered lined pond that is a plug flow, which means as material is added, the same amount leaves. The pond liner shall meet the Tier 1 Double Lined Pond requirements of the Regional Water Quality Control Board.

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.

XVIII. 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 degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or	☐	☐	☒	☐

prehistory?

b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Discussion:

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.

Documents/Organizations/Individuals Consulted
In Preparation of this
Initial Study

California Department of Finance

California Department of Toxic Substance Control (DTSC) http://dtsc.ca.gov/database/index.cfm

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 accessed October 31, 2008

California Department of Fish and Game "California Natural Diversity Database" http://www.dfg.ca.gov/biogeodata/cnddb/

Madera County Dairy Standards

Madera County Department of Public Works

Madera County Environmental Health Department

Madera County Fire Marshall's Department

Madera County General Plan

Madera County Integrated Regional Water Management Plan

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

EXHIBIT N

MITIGATED NEGATIVE DECLARATION MND

RE: CUP #2016-002

LOCATION AND DESCRIPTION OF PROJECT:

The subject property is located on the west side of Road 9, approximately 0.98 of a mile south of its intersection with Avenue 14 (12852 Road 9) Madera. This is a request to amend Conditional Use Permit #2012-015 to reconfigure a dairy digester facility on the dairy.

ENVIRONMENTAL IMPACT:

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

BASIS FOR NEGATIVE DECLARATION:

See attached

Madera County Environmental Committee

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

DATED: February 25, 2016
FILED:
PROJECT APPROVED:

MITIGATION MONITORING REPORT

MND # 2016-04

No.	Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
						Initials	Date	Remarks
Aesthetics								
	all lighting to be hooded and directed away from surrounding parcels							
Agricultural Resources								
Air Quality								
Biological Resources								
Cultural Resources								
Geology and Soils								
	applicant to file an erosion and control plan							
Hazards and Hazardous Materials								
Hydrology and Water Quality								
	Grading to adhere to FEMA standards to prevent undo flooding or danger to structures							
Land Use and Planning								
Mineral Resources								
Noise								
Population and Housing								
Public Services								

No.	Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
						Initials	Date	Remarks
Recreation								
Transportation and Traffic								
Utilities and Service Systems								