

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

- 1. Project title:** CUP #2024-010 – Maas Energy Works, Inc.
- 2. Lead agency name and address:** County of Madera
Community and Economic Development Department
200 West 4th Street, Suite 3100
Madera, California 93637
- 3. Contact person and phone number:** Jacob Aragon, Planner III
559-675-7821

Jacob.Aragon@maderacounty.com
- 4. Project Location & APN:** The subject property is located on the southeast corner of Avenue 27 and Road 14, (14768 Avenue 27), Chowchilla.
- 5. Project sponsor's name and address:** Maas Energy Works, Inc.
1730 South St.
Redding, CA 96001
- 6. General Plan Designation:** AE (Agricultural Exclusive)
A (Agriculture)
- 7. Zoning:** ARE-40 (Agricultural, Rural, Exclusive 40 acre)
- 8. Description of project:**
The applicant is requesting Conditional Use Permit #2024-010 to allow the construction of a Digester System to include a covered lagoon digester, manure separator, and biogas equipment pad. The biogas will be collected in the digester and injected into the Merced pipeline to be sent to the Merced Biogas Cleanup Facility. The produced biogas generated from the proposed Digester will be exported via pipeline on site and using county right-of-way easements along Avenue 26, and interconnect with the existing Merced pipeline to be transported to the Merced Biogas Cleanup Facility.
- 9. Surrounding Land Uses and Setting:**
Surrounding properties are zoned Agricultural and have a land use designation of Agricultural Exclusive.
- 10. Other Public Agencies Whose Approval is Required:**
None.

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

Under AB 52, Tribal Governments have been notified of the Project. (See Section XVIII for additional discussion.).

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

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

Signed: *Jacob Aragon* Date: 12/06/2024

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

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

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|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Responses:

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

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

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

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

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

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

(c - d) Less Than Significant Impact. The Project is located on the southeast corner of Avenue 27 and Road 14, surrounded by a rural area portion of the county. The Project consists of a Digester which will be covered, a Dual Slope Screen Separator, and biogas blower skid. The Project also consists of approximately 7,720 linear feet of the pipeline, approximately 36 inches (minimum) underground, and will transport the produced biogas from the digester site to the existing injection site, located on the southwestern corner of the property. The pipeline will primarily be kept on site and utilize a portion of Avenue 26.

There is the potential for additional lighting at the site, but the minimal increase will not be a significant impact. As a condition of approval, it will be required to be hooded and directed down and away from neighboring parcels. Therefore, the Project will have a less than significant impact/

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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II. AGRICULTURAL AND FORESTRY RESOURCES

In determining whether agricultural impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Responses:

The primary use surrounding the Project site is predominately agricultural.
General Information

The California Land Conservation Act of 1965 -- commonly referred to as the Williamson Act

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

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

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

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

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

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

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

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

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

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

(a - e) No Impact. The property involved in this Project is considered Confined Animal Agriculture in the Rural Land Mapping Project of the Farmland Mapping and Monitoring Program of the California Resources Agency. This designation is consistent with the usage of dairy facilities which is the primary operation on this property. The Project will not impact the current dairy operations. It will not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), to non-agricultural use. The property is subject to a Williamson Act Contract; however, the Project will not significantly displace or impair current or reasonably foreseeable agricultural operations on the parcel. The Project will be installing a digester which will be covered, a Dual Slope Screen Separator, and biogas blower skid. The Project also consists of approximately 7,720 linear feet of the pipeline and will transport produced biogas from the digester site to the existing injection site, primarily will be located on site and use a portion of the county right-of-way. The parcel (APN: 026-110-008) is zoned ARE-40 (Agricultural, Rural, Exclusive - 40 Acre), which allows for dairies by Conditional Use Permit. The Project will not impact the current agricultural use and will not require rezoning.

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III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

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|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Conflict with, or obstruct implementation of, the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Responses:

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

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

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

The SJVAB has an inland Mediterranean climate that is characterized by warm, dry summers and cooler winters. Summer high temperatures often exceed 100 degrees

Fahrenheit, averaging from the low 90s in the northern part of the valley to the high 90s in the south. The daily summer temperature variation can be as high as 30 degrees Fahrenheit. Winters are for the most part mild and humid. Average high temperatures during the winter are in the 50s, while the average daily low temperature is in the 40s.

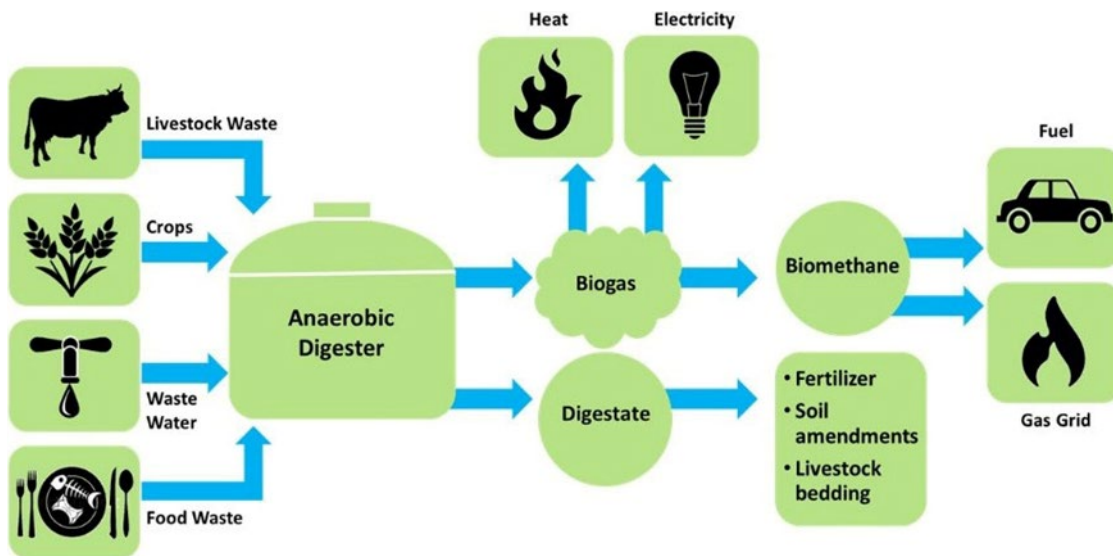
The vertical dispersion of air pollutants in the valley is limited by the presence of persistent temperature inversions. Air temperatures usually decrease with an increase in altitude. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. Air above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

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

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

An anaerobic digester refers to an airtight vessel where anaerobic bacteria (those that thrive in the absence of oxygen) are used to digest (decompose or breakdown) an organic, carbon based, solid waste slurry, such as cow manure or food wastes, into smaller molecular weight compounds with lower residual odor. The anaerobic bacteria generate both methane (CH_4 also called natural gas) and carbon dioxide (CO_2) gases in near equal volume as they digest the waste material. In modern anaerobic digesters, this biogas is captured and is used for energy recovery, typically in an internal combustion engine coupled to an electric generator. During the subsequent combustion, the methane is converted to carbon dioxide, releasing energy to drive the engine or provide heat for other uses. The process is widely used as a source of renewable energy.

The anaerobic digester will capture methane from decomposing manure sourced from the dairy facility and then converted to electricity which will be sold to an off-site electrical provider. Anaerobic digestion is a process by which microorganisms break down biodegradable material in the absence of oxygen. The process 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 biogas generated from the site will eventually be turned in to electricity which will then be sold to the power grid.



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

There are other agricultural operations and residences in the area but are sufficiently spread out so as not to pose an over concentration of sensitive receptors.

The closest residence is approximately half a mile east of the Project and is on a parcel utilized for agricultural purposes. Given the nearest residence is on a parcel used for agricultural purposes and the distances between habitation and uses, odors are not substantially concentrated. As the odors spread from their source, they tend to disperse and dilute. While there might be "faint traces" of odors, they are not as concentrated. This is typical of this type of operation. And therefore, the Project will have a less than significant impact.

The County encourages the expansion of digesters due to the air quality benefits and use's digesters as a benchmark in reaching its air quality goal and improvement. As a result, the Project would have a less than significant impact cumulatively or have adverse effects on human beings either directly or indirectly.

- **Policy**
 - DDS-2.8 methane digesters- The County Shall encourage the use of methane digesters at new or expanding dairies and shall pursue available grants to help fund the construction of these digesters for individual dairies.
- **Air Quality Element Program 1-** As part of the annual report to the Board of Supervisors on progress in implementing the General Plan, staff will report on benchmarks achieved that implement goals, objectives, and polices having air quality benefits. The County will use its geographic Information System (GIS) to provide up to date land use and development data and tracking for other metrics.

Appropriate benchmarks and means to track them will be developed within 12 months of adoption of the Air Quality Element and will be adjusted over time to response to changing conditions and lessons learned. The following benchmarks are proposed:

- Resource Conservation Benchmarks:
 - Progress achieved on dairy digester methane Projects

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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IV. BIOLOGICAL RESOURCES

Would the project:

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|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of a native wildlife nursery site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Responses:

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

The evaluation of biological resources includes a programmatic review of vegetation and wildlife habitat, special-status species, and wetland habitats that may meet the criteria for

jurisdictional waters of the U.S. which occur or potentially occur in the area. The results of this programmatic evaluation are based upon literature searches and database queries of known and existing data.

The area surrounding the proposed Project site has been disturbed through agricultural uses, roads, and residential unit development.

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

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

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

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

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

Vernal pools are temporary pools of water that provide habitats. They are considered to be a distinctive type of wetland usually devoid of fish, and thus allow the safe development of natal amphibian and insect species. Most vernal pools are dry for at least part of the year. There are no indications of vernal pools present on the Project site.

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

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

Species	Federal Listing	State Listing	Dept. of Fish and Game Listing	CNPS Listing
Swainsons hawk	None	Threatened	-	-
northern harrier	None	None	SSC	-
tricolored blackbird	None	Threatened	SSC	-
burrowing owl	None	Candidate Endangered	SSC	-
vernal pool fairy shrimp	Threatened	None	-	-
vernal pool tadpole shrimp	Endangered	None	-	-
American bumble bee	None	None	-	-
San Joaquin kit fox	Endangered	Threatened	-	-
American badger	None	None	SSC	-
hoary bat	None	None	-	-
Yuma myotis	None	None	-	-
spiny-sepaled button-celery	None	None	-	1B.2
heartscale	None	None	-	1B.2
lesser saltscale	None	None	-	1B.1
Merced phacelia	None	None	-	3.2
California alkali grass	None	None	-	1B.2

Plainsburg Quadrangle

List 1A: Plants presumed extinct

List 1B: Plants Rare, Threatened, or Endangered in California and elsewhere.

List 2: Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere

List 3 Plants which more information is needed – a review list

List 4: Plants of Limited Distributed - a watch list

Ranking

0.1 – Seriously threatened in California (high degree/immediacy of threat)

0.2 – Fairly threatened in California (moderate degree/immediacy of threat)

0.3 – Not very threatened in California (low degree/immediacy of threats or no current threats known)

SSC Species of Special Concern

WL Watch List

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

The area surrounding the parcel site has been developed to some degree with residential units and commercial activity. A major highway corridor and numerous arterial roadways crisscross the area.

(d) Less Than Significant Impact. While there might be some disruption in migration patterns during construction of the facilities, once completed there should be minimal if any impacts as a result of operations. The construction of the facilities will be placed on a developed dairy operation.

(e & f) No Impact. A Habitat Conservation Plan or Natural Community Conservation Plan has not been adopted in the County of Madera and therefore the Project would have no impact.

General Information

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

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

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

Would the project:

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

Responses:

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

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

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

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

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

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

Most of the archaeological survey work in the County has taken place in the foothills and

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

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

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

- Is associated with an event or person of recognized significance in California or American history or of recognized scientific importance in prehistory.
- Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions.
- Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind.
- Is at least 100 years old and possesses substantial stratigraphic integrity (i.e., it is essentially undisturbed and intact).
- Involves important research questions that historic research has shown can be answered only with archaeological methods.

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

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

(a - c) No Impact. There are currently eight facilities on the Project site in support of agricultural activities, two storage lagoons located to the south, and ground-mounted solar panels located on the north side of the Project site along with existing freestall barns. As previously stated, The Project will consist of installing a Digester which will be covered, a Dual Slope Screen Separator, and biogas blower skid. The Project also consists of approximately 7,720 linear feet of the pipeline, which will transport produced biogas from

the digester site to an existing injection located at the southwest corner of the parcel (026-110-008) utilizing primarily private dirt roads on site and a portion of county right-of-way (Avenue 26). The Project site and the surrounding areas have been developed for years with significant ground disturbances as a result (infrastructure, roadways, agricultural uses, etc.) making it unlikely the Project would have an impact on any of the cultural resources.

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

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Responses:

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

Construction vehicles and construction worker vehicles utilize fossil fuels. The increased fuel consumption during the construction would be temporary and would not require any additional fuel or energy of any significant value.

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

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

(a - b) Less Than Significant Impact. There are currently eight facilities on the Project site in support of agricultural activities, two storage lagoons located to the south, and ground-mounted solar panels located on the north side of the Project site along with existing freestall barns. As previously stated, The Project will consist of installing a Digester which will be covered, a Dual Slope Screen Separator, and biogas blower skid. The Project also consists of approximately 7,720 linear feet of the pipeline, which will transport produced biogas from the digester site to an existing injection located at the southwest corner of the parcel (026-110-008) utilizing primarily private dirt roads on site and a portion of county right-of-way (Avenue 26).

During any construction, there will be construction vehicles and equipment being utilized on-site. The fuel consumption will be minimal in light of the whole and limited to the time frame around the construction.

There will be a slight increase in energy usage (lighting, energy usage, etc.); however, the energy produced from the Project will exceed the energy used for construction and overall energy use of the operation.

The Project will not obstruct a state or local plan for renewable energy or energy efficiency. According to the Madera County General Plan, the county shall encourage the use of methane digesters.

- **Madera County General Plan/Policy DDS-2.8 Methane Digesters**
 - The County shall encourage the use of methane digesters at new or expanding dairies and shall pursue available grants to help fund the construction of these digesters for individual dairies

VII. GEOLOGY AND SOILS

Would the project:

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

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

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

c) Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

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

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

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

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

Responses:

The regional geology of the area is influenced by the Great Valley, a topographically dominant northwest-trending valley approximately 50 miles wide and 400 miles long that formed between the Coast Range Mountains to the west and the Sierra Nevada Mountains to the east. The Great Valley itself is divided into northern and southern portions, named

the Sacramento and San Joaquin Valleys respectively. The western portion of the county, which consists of the rich alluvial bottom lands of the San Joaquin Valley, is predominately agricultural. Most of the County's agricultural activities occur here, due to the level topography, prime cultivable soils, and excellent drainage.

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

The topography of the site is mountainous and would be prone to mudslides during intense rain showers.

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

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

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

communities felt the vibrations.

(a – iv) No Impact. The area is topographically flat, so landslides are not likely.

(b) Less Than Significant Impact. There are currently eight facilities on the Project site in support of agricultural activities, two storage lagoons located to the south, and ground-mounted solar panels located on the north side of the Project site along with existing freestall barns. As previously stated, The Project will consist of installing a Digester which will be covered, a Dual Slope Screen Separator, and biogas blower skid. The Project also consists of approximately 7,720 linear feet of the pipeline, which will transport produced biogas from the digester site to an existing injection located at the southwest corner of the parcel (026-110-008) utilizing primarily private dirt roads on site and a portion of county right-of-way (Avenue 26). Potential for erosion exists due to rain events; however due to the topographically flat nature of the Project site, erosion will be minimal. And therefore, the Project would have less than a significant impact.

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

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

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

The proposed Project is not in an area known for paleontological resources. And therefore, the Project would have not impact.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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VIII. GREENHOUSE GAS EMISSIONS

Would the project:

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|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Responses:

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

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

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

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

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

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

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

Emissions of GHGs contributing to global climate change are largely attributable to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. About three-quarters of human emissions of CO_2 to the global atmosphere during the past 20 years are due to fossil fuel burning. Atmospheric concentrations of CO_2 , CH_4 , and N_2O have increased 31 percent, 151 percent, and 17 percent respectively since the year 1750 (CEC 2008). GHG emissions are typically expressed in carbon dioxide-equivalents (CO_2e), based on the GHG's Global Warming Potential (GWP). The GWP is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, one ton of CH_4 has the same contribution to the greenhouse effect as approximately 21 tons of CO_2 . Therefore, CH_4 is a much more potent GHG than CO_2 .

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

(a - b) Less than Significant Impact. GHG emissions are expected via manure generation as a matter of course of the dairy. However, the digester Project has the potential of reducing the release of GHG emissions. This will be accomplished through the capture of the methane produced through decomposition and cycle it through an enclosed system and literally piped to infrastructure that will allow the resultant biogas to be utilized to generate energy. As such, this is considered a renewable energy source.

Greenhouse Gas (GHG) Emissions: The potential effect of greenhouse gas emission on global climate change is an emerging issue that warrants discussion under CEQA. Unlike the pollutants discussed previously that may have regional and local effects, greenhouse gases have the potential to cause global changes in the environment. In addition, greenhouse gas emissions do not directly produce a localized impact but may cause an indirect impact if the local climate is adversely changed by its cumulative contribution to a change in global climate. Individual development Projects contribute relatively small amounts of greenhouse gases that when added to other greenhouse gas producing activities around the world would result in an increase in these emissions that have led

many to conclude is changing the global climate. However, no threshold has been established for what would constitute a cumulatively considerable increase in greenhouse gases for individual development Projects. The State of California has taken several actions that help to address potential global climate change impacts.

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

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

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Responses:

The western part of Madera County has historically experienced several concerns related to hazardous materials. The dominant land use in the area consists of existing dairies and irrigated agricultural crop production. Additional land uses include agricultural crop processing facilities, grain storage facilities and irrigation water supply canals and reservoirs.

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. The California Code of Regulations (CCR) defines a hazardous material as a

substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of, or otherwise managed (CCR Title 22 Division 4.5 Chapter 10 Article 2 §66260.10).

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

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

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

The storage, use, generation, transport and disposal of hazardous materials and waste are highly regulated under federal and state laws and regulations. Laws and regulations established by the USEPA are enforced by the California Environmental Protection Agency (CAL-EPA). CAL-EPA also oversees the unified hazardous waste and hazardous materials management regulatory program. California Health and Safety Code Section 25501 defines a hazardous material as “any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.” Section 25092.6 of the CEQA Statutes requires the Lead Agency to consult the lists compiled pursuant to Government Code Section 65962.5 to determine whether a proposed Project and any alternatives are identified as contaminated sites.

(a – d) No Impact. The western part of Madera County has historically experienced several concerns related to hazardous materials. Typically, these hazards are in line with agriculturally based operations (fertilizers, pesticides, equipment oils and grease, etc.). The use and management of chemicals, including hazardous materials, within the agricultural areas of the County are dominated by the application of fertilizer and pesticides for crop production.

Construction activities would likely require use of limited quantities of hazardous materials such as fuels for construction equipment, oils, and lubricants. The improper use, storage,

handling, transport, or disposal of these materials could result in accidental release. Due to the minimal amounts typically in these vehicles, no impact is anticipated.

Operationally for this Project, there is no anticipation of any new hazardous materials. There are materials that can be considered harmful or hazardous to some degree as a matter of the whole dairy (fuels for vehicles and equipment, oils & grease for engines, pesticides for crops, and the like), but they are minimal in light of the whole.

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

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

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

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

Assembly Bill AB 2286 requires all business and agencies to report their Hazardous Materials Business Plans to the CUPA information electronically at <http://cers.calepa.ca.gov>

The Project is not with a quarter-mile of a school site. The closest school to the Project is Alview Elementary, located approximately one mile southwest of the proposed anaerobic digester (APN: 020-130-013) and two miles northwest of the existing injection site (APN:020-170-011).

According to the Department of Toxic Substance Control (DTSC), there are no sites on or near this Project site that is or was hazardous waste sites. The closest DTSC site is located approximately seven miles to the northwest and was closed out as of 5/21/2018. As a result, the Project will have no impact.

(e) No Impact. No airports or airstrips exist in the vicinity of this Project. The closest airport to the Project is the Chowchilla Municipal Airport which is approximately 2 miles southeast of the Project. As a result, the Project would have no impact.

(f) No Impact. the Project will not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan and therefore will have no impact.

(g) No Impact. According to the Madera County General Plan, a Wildland is a nonurban, natural area that contains uncultivated land, timber, range, watershed, brush, or grasslands. The Project is located in a heavy agricultural area where the ground has been disturbed and cultivated. The Project will not expose people or structures, directly or indirectly, to a significant risk of loss, injury, or death involving wildfires and therefore have no impact.

X. HYDROLOGY AND WATER QUALITY

Would the project:

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

Responses:

The area where the Project is proposed consists of an existing dairy facility.

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

(c i - iv) Less Than Significant Impact. As previously stated, the Project consists of installing a Digester which will be covered, a Dual Slope Screen Separator, and biogas blower skid. The Project also consists of approximately 7,720 linear feet of the pipeline, which will transport produced biogas from the digester site to an existing injection located at the southwest corner of the parcel (026-110-008) utilizing primarily private dirt roads on site and a portion of county right-of-way (Avenue 26). The Project will not alter the existing drainage pattern of the site or area. And therefore, the Project would not result in substantial erosion or siltation on- or off-site; the Project site is on topographically flat land and weather events may result in erosion.

The Project will not increase the rate or amount of surface runoff in a manner which would result in flooding on-or-offsite; or contribute runoff water exceeding the capacity of existing or planned stormwater drainage or, impede or redirect flood flows.

(d) No Impact. A seiche is an occasional and sudden oscillation of the water of a lake, bay or estuary producing fluctuations in the water level and caused by wind, earthquakes or changes in barometric pressure. A tsunami (from the Japanese language, roughly translated as “harbor wave”) is an unusually large sea wave produced by seaquake or undersea volcanic eruption. According to the California Division of Mines and Geology, there are no active or potentially active faults of major historic significance within Madera County. Additionally, there are no bodies of water (lakes, etc.) within proximity of the site. Madera County is geographically located in the center of the state, therefore not affected by tsunamis.

(e) No Impact. The Project is not anticipated to conflict or obstruct the implementation of a water quality control plan or sustainable groundwater management plan.

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 dibromo chloropropane with the maximum contaminant level exceeded in some areas. Despite the water quality issues noted above, most of the groundwater in the Valley Floor is of suitable quality for irrigation. Groundwater of suitable quality for public consumption has been demonstrated to be present in most of the area at specific depths.

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

A seiche is an occasional and sudden oscillation of the water of a lake, bay or estuary producing fluctuations in the water level and caused by wind, earthquakes or changes in barometric pressure. A tsunami (from the Japanese language, roughly translated as “harbor wave”) is an unusually large sea wave produced by seaquake or undersea volcanic

eruption. According to the California Division of Mines and Geology, there are no active or potentially active faults of major historic significance within Madera County. As this property is not located near any bodies of water, no impacts are identified.

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

XI. LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

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

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

XII. MINERAL RESOURCES

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Responses:

(a - b) No Impact. Mineral resources in Madera County include aggregate (sand, gravel, and crushed stone), asbestos, copper, gold, iron, and silver. There are no known minerals in the vicinity of the Project area which consists primarily of agricultural land and therefore the Project would have no impact.

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

Would the project result in:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinances, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Responses:

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

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

Short Term Noise

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

implementation of mitigation measures, this impact would be considered less than significant.

Long Term Noise

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

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

MAXIMUM ALLOWABLE NOISE EXPOSURE FOR
NON-TRANSPORTATION NOISE SOURCES*

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

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

AM = 7:00 AM to 10:00 PM
 PM = 10:00 PM to 7:00 AM
 L = Light
 H = Heavy

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

Vibration perception threshold: The minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such direct means as, but not limited to, sensation by touch or visual observation of moving objects. The

perception threshold shall be presumed to be a motion velocity of one-tenth (0.1) inches per second over the range of one to one hundred Hz.

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

(a - b) Less than Significant Impact. The Project is located in an area of the County considered most likely to accommodate future growth in agricultural facilities. The noise sources associated with these types of facilities are mainly agricultural equipment, and vehicles operating on local roadways. Noise levels away from these noise sources can be quite low depending on the amount of nearby human activity.

Operation of the proposed Project would generate levels of noise from normal operations.

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

c) No Impact. As previously stated, there are no airports or airstrips in the vicinity of this Project. The closest airport to the Project is the Chowchilla Municipal Airport which is approximately two miles southeast of the Project. As a result, the Project would have no impact.

XIV. POPULATION AND HOUSING

Would the project:

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

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Responses:

(a - b) No Impact. The Project consists of installing a proposed covered lagoon anaerobic digester system on an already existing dairy facility. The Project will not displace or induce substantial unplanned growth in the area.

XV. PUBLIC SERVICES

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

(a – I through V) No Impact. The Project will not result in new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services. And therefore, the Project will have no impact.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVI. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

(a – b) No Impact. The Project consists of an anerobic digester and transporting biogas to an existing injection site and is not going to increase the population to the area. As a result, the Project will not increase the demand of parks or public facilities and will have no impact.

XVII. TRANSPORTATION

Would the project:

a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Responses:

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

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

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

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

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

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

populations in order to gain sufficient ridership. Oakhurst is therefore dependent on private automobile and truck access.

Access will be via Road 602, south of its intersection with Avenue 24. The closest traffic counts done by the Madera County Transportation Commission (MCTC) in 2016 centers around Avenue 26 at its intersection with Road 26, which is 4.17 miles northwest of the Project site. Per the MCTC, there were 343 east bound and 326 west bound trips on Avenue 26, just east of Road 26. There will be a minor increase of traffic in the area for the duration of construction of the site.

(a - d) No Impact. The Project will not conflict with a program, plan, policy addressing circulation system, or ordinance. The Project consist of the installation of a digester for the existing dairy operation to collect and transport the biogas gas to an existing Biogas facility located in Merced. There are no proposed roads and the Project will not interfere with emergency access points. Existing are fourteen (14) access points on site.

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

Would the project:

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

- | | | | | | |
|-----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| i. | Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii. | A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Responses:

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

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

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

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

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

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

(a – i, ii) No Impact. There are currently eight facilities on the Project site in support of agricultural activities, two storage lagoons located to the south, and ground-mounted solar panels located on the north side of the Project site along with existing freestall barns. As previously stated, The Project will consist of installing a Digester which will be covered, a Dual Slope Screen Separator, and biogas blower skid. The Project also consists of approximately 7,720 linear feet of the pipeline. As a result of the Project site being built up, the Project would have no impact.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it had adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Responses:

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 1,000-foot elevation, residents are served by EMADCO services for solid waste pick-up.

Water Quality Issues

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

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

Groundwater availability issues

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

Wastewater Issues

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

Solid Waste Issues

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

California Integrated Waste Management Board, the generation rate per resident is 0.63 pounds per day of trash.

(a - e) No Impact. The Project would not result in a change to facilities or operations of existing wastewater treatment plants, nor would it generate wastewater. Therefore, the Project would have no impact.

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

Responses:

(a - d) No Impact. The Project is not located in or near a State Responsibility Area (SRA) or very high fire hazard severity zone, the closest SRA is approximately seven miles east of the Project. The Project would not exacerbate wildfire risks. The Project does not propose any habitable structures and would therefore have no occupants. Further analysis of the Project's potential impacts to wildfire are not warranted. There would be no impacts. The Project would have no impact on emergency response plans adopted by Madera County.

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

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

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

Responses:

CEQA defines three types of impacts or effects:

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

(a) Less Than Significant Impact. As previously stated, there are currently eight facilities on the Project site in support of agricultural activities, two storage lagoons located to the south, and ground-mounted solar panels located on the north side of the Project site along

with existing freestall barns. As previously stated, The Project will consist of installing a Digester which will be covered, a Dual Slope Screen Separator, and biogas blower skid. The Project also consists of approximately 7,720 linear feet of the pipeline. As a result, the Project will not have potential to substantially degrade the quality of the environment and therefore will have a less than significant impact.

(b-c) Less Than Significant Impact. 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.

As previously stated, the anerobic digester is located on an existing dairy and will be using the county right-of-way to transport the produced biogas to an existing injection site. The County encourages the expansion of digesters due to the air quality benefits and use's digestors as a benchmark in reaching its air quality goal and improvement. As a result, the Project would have a less than significant impact cumulatively or have adverse effects on human beings either directly or indirectly.

- **Policy**
 - DDS-2.8 methane digesters- The County Shall encourage the use of methane digesters at new or expanding dairies and shall pursue available grants to hep fund the construction of these digesters for individual dairies.
- **Air Quality Element Program 1-** As part of the annual report to the Board of Supervisors on progress in implementing the General Plan, staff will report on benchmarks achieved that implement goals, objectives, and polices having air quality benefits. The County will use its geographic Information System (GIS) to provide up to date land use and development data and tracking for other metrics. Appropriate benchmarks and means to track them will be developed within 12 months of adoption of the Air Quality Element and will be adjusted over time to response to changing conditions and lessons learned. The following benchmarks are proposed:
 - Resource Conservation Benchmarks:
 - Progress achieved on diary digester methane Projects

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California Integrated Waste Management Board

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