



**LYON COUNTY**  
**COMMUNITY DEVELOPMENT DEPARTMENT**  
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**BOARD OF COUNTY COMMISSIONERS**

**PLZ-2024-083**

<b>Proposed Action</b>	<u>Conditional Use Permit for Renewable Natural Gas Production</u>
<b>Meeting Date</b>	<u>March 6, 2025</u>
<b>Property Owners</b>	<u>Desert Hills Dairy, LLC</u>
<b>Applicant</b>	<u>CEA Dairy RNG Nevada, LLC</u>
<b>Representative</b>	<u>Virginia Weis, P.E. / Dominion Energy</u>
<b>Community</b>	<u>Mason Valley</u>
<b>Location</b>	<u>350 Campbell Lane</u>
<b>Parcel Number</b>	<u>014-161-01</u>
<b>Parcel Size</b>	<u>10.8-acre portion of 162.79 acres</u>
<b>Master Plan</b>	<u>Agriculture</u>
<b>Current Zoning</b>	<u>Subject to RR-20 (Rural Residential - 20 acre minimum)</u>
<b>Flood Zone(s)</b>	<u>X-Unshaded per FIRM 32019C0705E</u>
<b>Case Planner</b>	<u>Louis Cariola</u>

**REQUEST**

Request from CEA Dairy RNG Nevada, LLC for a Conditional Use Permit to expand and operate methane digesters and to permit a legally-existing, non-conforming use, bringing the site into compliance with the NV Division of Environmental Protection’s Chemical Accident Prevention Program (NV CAPP) and Nevada Revised Statutes (NRS) 278.147.

**PROJECT SUMMARY**

Conditional Use Permit to expand existing anaerobic digester systems operating at the Desert Hills Dairy in Mason Valley.

**PLANNING COMMISSION RECOMMENDATION**

On February 11, 2025, the Planning Commission heard a presentation from staff for a Conditional Use Permit to expand existing anaerobic digester systems operating at the Desert Hills Dairy in Mason Valley. The Planning Commission voted 6-0 (with one Commissioner absent – Ceresola) to forward a recommendation of approval to the

Board of County Commissioners, but they included a suggested modification to the Conditions of Approval. There are two options proposed in the application to expand the existing digester system at the Dairy: one is an additional tank and the other is a lagoon. The Planning Commission expressed concern with the lagoon option and potential impacts to neighboring properties. Staff's position was that the Dairy already operates over 400 acres and there are no residential neighbors within the vicinity. Staff's recommendation for approval was based upon the fact that since both options are within the existing footprint of the existing dairy operation, and the Nevada Division of Environmental Protection's (NDEP) Chemical Accident Prevention Program (CAPP) will be providing regulatory oversight, then both options should remain available to the applicants, pending further approvals for building and grading permits. There were no representatives from the applicants to answer questions in attendance (either in the Commission's Chambers or on-line). The Planning Commission motion to recommend approval specifically stated that they were only recommending approval of the tank option and that they would like the applicant to come before them again if the lagoon option is pursued. If the Board wishes to make the same determination, then that language will have to be added to the motion as the Recommended Conditions of Approval below are unchanged from the Planning Commission hearing.

## **RECOMMENDED MOTION**

If the Board of County Commissioners determines that they will approve the request, then they may want to consider a motion similar to the following.

### **The Lyon County Board of County Commissioners finds that:**

- A. The proposed use at the specified location is consistent with the policies embodied in the adopted master plan and the general purpose and intent of the applicable district regulations;
- B. The proposed use is compatible with the character and integrity of adjacent development and neighborhoods and includes improvements or modifications either on-site or within the public rights-of-way to mitigate development related adverse impacts, such as traffic, noise, odors, visual nuisances, or other similar adverse effects to adjacent development and neighborhoods;
- C. The proposed use will not generate vehicular traffic which cannot be accommodated by the existing, planned or conditioned roadway infrastructure;
- D. The proposed use incorporates roadway improvements, traffic control devices or mechanisms, or access restrictions to control traffic flow or divert traffic as needed to mitigate the development impacts;
- E. The proposed use incorporates features to address adverse effects, including visual impacts and noise, of the proposed conditional use on adjacent properties;
- F. The proposed conditional use complies with all additional standards imposed on it by the particular provisions of this chapter and all other requirements of this title applicable to the proposed conditional use and uses within the applicable base zoning district, including but not limited to, the adequate public facility policies of this title; and
- G. The proposed conditional use will not be materially detrimental to the public health, safety and welfare, and will not result in material damage or prejudice to other properties in the vicinity.

**Based on the aforementioned Findings, I move that the Board of County Commissioners approve the request from CEA Dairy RNG, Nevada LLC, for a Conditional Use Permit for the expansion of a legally-existing, non-conforming use consisting of anaerobic digesters for methane production, and to ensure compliance with Nevada Division of Environmental Protection regulations, on land subject to Rural Residential 20-acre (RR-20) zoning, (APN 014-161-01); PLZ-2024-083.**

## CONDITIONS OF APPROVAL

1. No change in the terms and conditions of the Conditional Use Permit (CUP), as approved, shall be undertaken without first submitting the changes to Lyon County Community Development and having them modified in conformance with Lyon County Code.
2. The applicant shall comply with all applicable Fire, building, zoning and improvement code requirements and obtain any necessary public inspections. All construction documents and separate applications must be submitted to the Central Lyon County Fire Protection District and the Lyon County Building Department for review and approval to obtain a Building Permit.
3. The applicant is required to submit for a separate and independent Fire Plan review by the Mason Valley Fire Protection District. Contact the Division directly for more information and direction on the submittal and permitting process.
4. The applicant shall acquire all Lyon County, state and federal permits necessary for the operation of the methane digester system as well as obtain all of the necessary public inspections.
5. The applicant shall provide Lyon County with confirmation from the Nevada Division of Environmental Protection's Chemical Accident Prevention Program that the proposed and existing uses are in compliance with Nevada Revised Statutes 278.147 as required, per this authorization of a Conditional Use Permit.
6. The applicant shall maintain a Lyon County business license for the use while occupying the site.
7. All contractors doing any construction, modifications, or remodels must be licensed in Lyon County and the State of Nevada.
8. The substantial failure to comply with the conditions imposed on the issuance of this conditional use permit or the operation of the conditional use in a manner that endangers the health, safety or welfare of Lyon County or its residents or the violation of ordinances, regulations or laws in the conditional use may result in the institution of revocation proceedings. **Failure to initiate the conditional use permit within two (2) years from the date of approval will result in the expiration of the conditional use permit approval.**

## ALTERNATIVES TO RECOMMENDATION OF APPROVAL

### Alternative Motion for Continuance

If the Board of County Commissioners determines that additional information, discussion and public review are necessary for a more thorough review of the proposed conditional use permit; they should make appropriate findings and move to **continue** the Public Hearing with a specific time period for the applicant to provide additional specific information necessary for the analysis of the request. The Board may wish to consider a motion similar to the following:

#### **The Board of County Commissioners finds that:**

- A. Additional information, discussion and public review are necessary for a more thorough review of the proposed Conditional Use Permit.

**Based on the above findings and with the applicant's concurrence, I move that the Board of County Commissioners continues the request from CEA Dairy RNG, Nevada LLC, for a Conditional Use Permit for the expansion of a legally-existing, non-conforming use consisting of anaerobic digesters for methane production, and to ensure compliance with Nevada Division of Environmental Protection regulations, on land subject to Rural Residential 20-acre (RR-20) zoning, (APN 014-161-01); PLZ-2024-083 for \_\_\_\_ days.**

**Alternative Motion for Denial**

If the Board of County Commissioners determines that they should recommend denial of the request for a Conditional Use Permit, then they need to make findings supporting a recommendation of denial. The Commissioners may wish to consider a motion similar to the following:

**The Board of County Commissioners finds that the proposed use:**

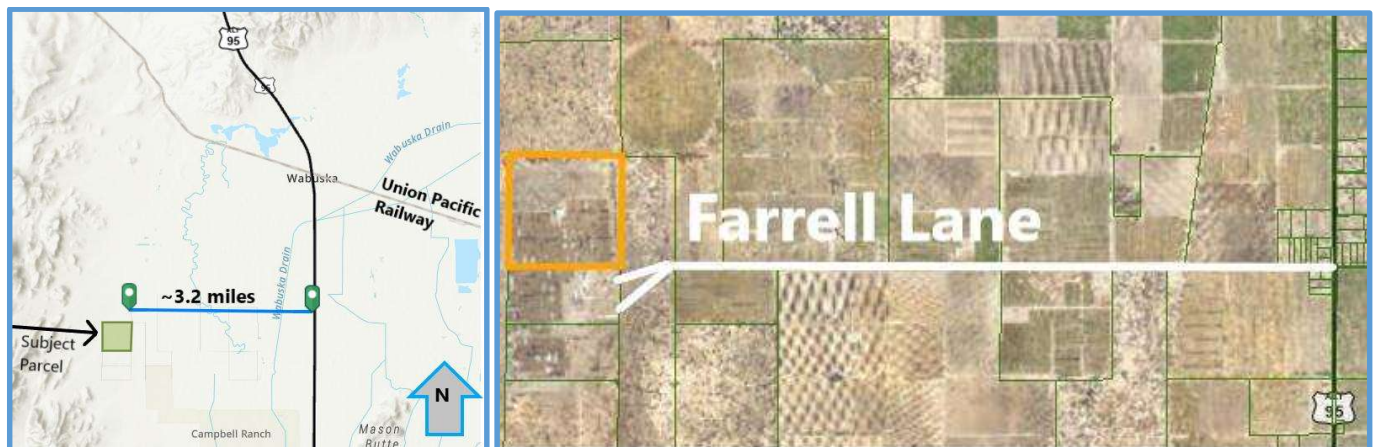
- A. Will be detrimental to the use, peaceful enjoyment, economic value, or development of surrounding properties or the general neighborhood; and is incompatible with and detrimental to the character and integrity of adjacent development and neighborhoods, nor has the applicant proposed mitigation of adverse impacts such as noise, vibrations, fumes, odors, dust, glare or physical activity related to the proposed project.
- B. Will be detrimental to the public health, safety, convenience and welfare; and
- C. Will result in material damage or prejudice to other property in the vicinity.

**Based on the aforementioned findings, I move that the Board of County Commissioners deny the request from CEA Dairy RNG, Nevada LLC, for a Conditional Use Permit for the expansion of a legally-existing, non-conforming use consisting of anaerobic digesters for methane production, and to ensure compliance with Nevada Division of Environmental Protection regulations, on land subject to Rural Residential 20-acre (RR-20) zoning, (APN 014-161-01); PLZ-2024-083.**

**BACKGROUND AND PARCEL INFORMATION**

Location, Size, Access

The subject parcel is located in Mason Valley, approximately 3.2 miles west of US Highway 95A (measured linearly). The parcel is 162.79 acres in size per the County Assessor. Access to the Dairy is via Farrell Lane, from Hwy 95A.





Existing Uses

The subject parcel is one of four commonly owned parcels that comprise the existing Desert Hills Dairy. Existing methane digesters are at the northern boundary of the subject parcel. The Dairy operates over 400 acres.



Public Facilities

The Dairy functions with septic and well systems. No change is proposed to public utilities.

Flood Zone Designation

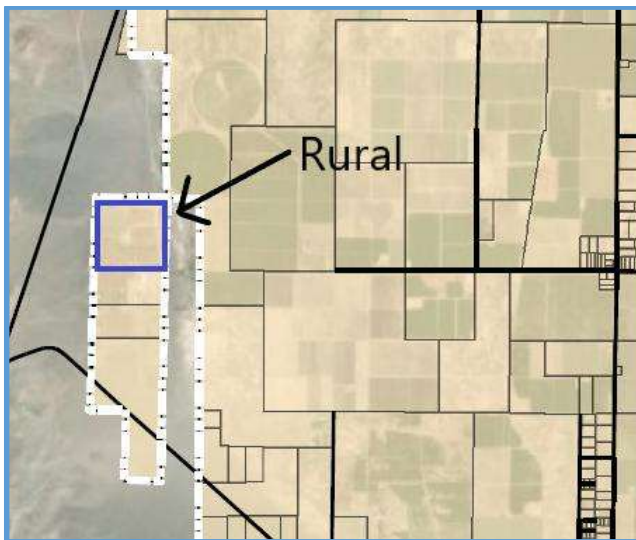
Per the FEMA (Federal Emergency Management Agency) Flood Insurance Rate Map (FIRM, number 32019C0705E) shown below, the project site is within an X-Unshaded zone, meaning development will not require a Floodplain Development Permit because the zone is recognized as being elevated above the 500-year flood event level.



## Master Plan and Zoning

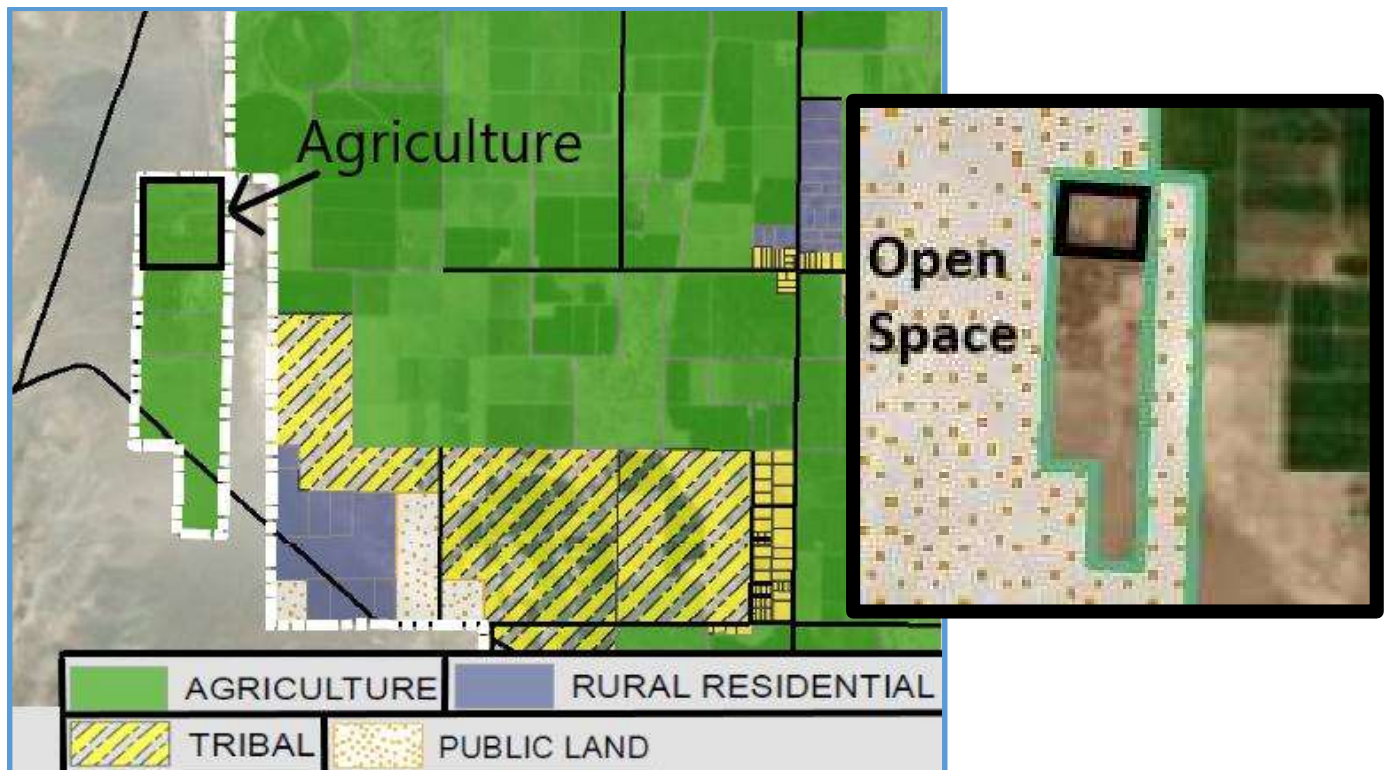
### Character District

The project site is within a Rural Character District, characterized by the lack of public utilities.



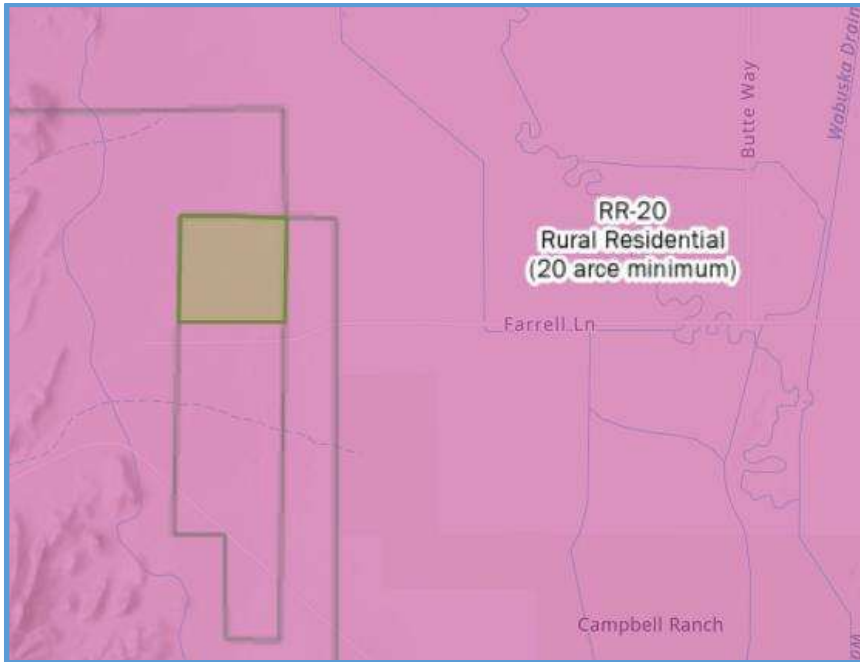
### Master Plan

The Master Plan (MP) designation for the site is Agriculture, consistent with the existing uses and the proposed expansion of said uses. The image below on the right is from the General Northerly Map of the MP and displays the Open Space designation to the east, north and west of the subject parcel and surrounding the existing Dairy.



Zoning

The subject parcel is zoned RR-5 (Fifth Rural Residential District – 20 acre minimum) from the County’s expired development code, Title 10, and is subject to RR-20 (Rural Residential – 20 acre minimum) zoning per the current code, Title 15, and the Zoning Consistency Matrix (adopted in 2018 with Title 15).



**STAFF REVIEW AND COMMENTS**

**Methane Digester System**

A methane digester, also called an anaerobic digester, is a sealed container where bacteria break down organic matter like manure or food waste in the absence of oxygen, producing biogas (mainly methane) that can be captured and used as a renewable energy source. The process leaves behind a nutrient-rich liquid called digestate as a byproduct; essentially mimicking the digestive process of a cow to generate methane from organic waste. The digestate can be used as a fertilizer due to its nutrient content.

The use of methane digesters and associated infrastructure to produce natural gas would be defined by Lyon County Code (LCC) Title 15 as an “alternative fuel generating facility” and is not an allowed use per Land Use Table 15.320-1, as depicted below, making the existing use of digesters at the Dairy legally existing and non-conforming. Per LCC 15.202, such uses may be expanded with a Conditional Use Permit.

**TABLE 15.320-1**  
**TABLE OF ALLOWED USES - RURAL RESIDENTIAL, COMMERCIAL MIXED USE, COMMERCIAL AND AGRICULTURAL/RESOURCE ZONING DISTRICTS**

P = Permitted; C = Conditional use permit required; T = Temporary use permit required; - = Not permitted

Use Category	Use Type	Rural Residential					Commercial Mixed-Use		Agricultural/Resource				Commercial		Use Specific Regulations (Code Reference)
		RR-20	RR-10	RR-5	RR-2	RR-1	CMU-R	HMU-R	AG	NIA	RL	PL	NC	TC-R	
Energy production and distribution	Fossil or alternative fuel generating facility, commercial	-	-	-	-	-	-	-	-	-	C	C	-	-	Chapter 337



- The existing digesters were recognized by Lyon County Planning staff in 2020 and 2021 to be accessory to the functioning dairy, which is an allowed use per RR-20 zoning regulations. At that time, Planning administration (County Manager and Senior Planner) determined that a CUP was not necessary.
- In November of 2023, the Nevada Division of Environmental Protection’s (NDEP) Chemical Accident Prevention Program (CAPP) Supervisor contacted Lyon County Community Development. He stated that Nevada Revised Statutes (NRS) 278.147 would require the County to issue a CUP for the digester systems due to methane production being recognized as the “manufacturing of explosive materials and/or processing of hazardous materials” in addition to other relevant definitions. The statute is copied below (underline added).

***NRS 278.147 Facilities for use, manufacture, processing, transfer or storage of explosives or certain other substances: Conditional use permit required; application for and issuance of conditional use permit.***

*1. No person may commence operation in this State of a facility where an explosive, a highly hazardous substance designated pursuant to NRS 459.3816 if present in a quantity equal to or greater than the amount designated pursuant to NRS 459.3816, or a hazardous substance listed in the regulations adopted pursuant to NRS 459.3833 will be used, manufactured, processed, transferred or stored without first obtaining a conditional use permit therefor from the governing body of the city or county in which the facility is to be located. Each governing body shall establish by local ordinance, in accordance with the provisions of this section, the procedures for obtaining such a permit.*

NDEP CAPP personnel represent the State as authorities and experts on the digester system permitting, including regulations for the transport of the natural gas produced. This CUP request would bring the existing facility, and the proposed expansion, into compliance with the CAPP directive and NRS 278.147. Staff had added a recommended Condition of Approval that requires the Dairy to submit confirmation to the County that the applicable approvals from NDEP have been granted.

## **PROJECT DESCRIPTION**

The applicant’s entire Project Description is included as an attachment to this report. The Project Details section is copied below, with highlights added by staff to sections of text that are especially relevant.

### **Project Details**

*Dominion Energy is proposing to expand their existing anaerobic digester system (a.k.a. Desert Hills Dairy Renewable Natural Gas RNG) to produce methane located at the north end of the Desert Hills Dairy LLC facility located at 350 Campbell Lane, Yerington, NV. The existing digester system is located at Lat/Long 39° 6'20.15"N and 119°14'34.28"W (WGS 84). The expansion would occur to the west side of the existing system. See Attachment A: Maps and Site Layouts for locations of the site and subsequent layouts for the expansion of the system.*

*This expansion would include manure pretreatment equipment, adding a digester tank(s) or covered anaerobic lagoon, additional dewatering equipment, biogas conditioning and upgrading equipment, and an additional flare. The anaerobic digester tank have a liquid volume of approximately 1.8 million gallons and the lagoon option has a liquid volume of approximately 35.6 million gallons. This system produces methane which is utilized as renewable natural gas (RNG) and is trucked offsite to the gas pipeline interconnect, located in Stagecoach, NV.*

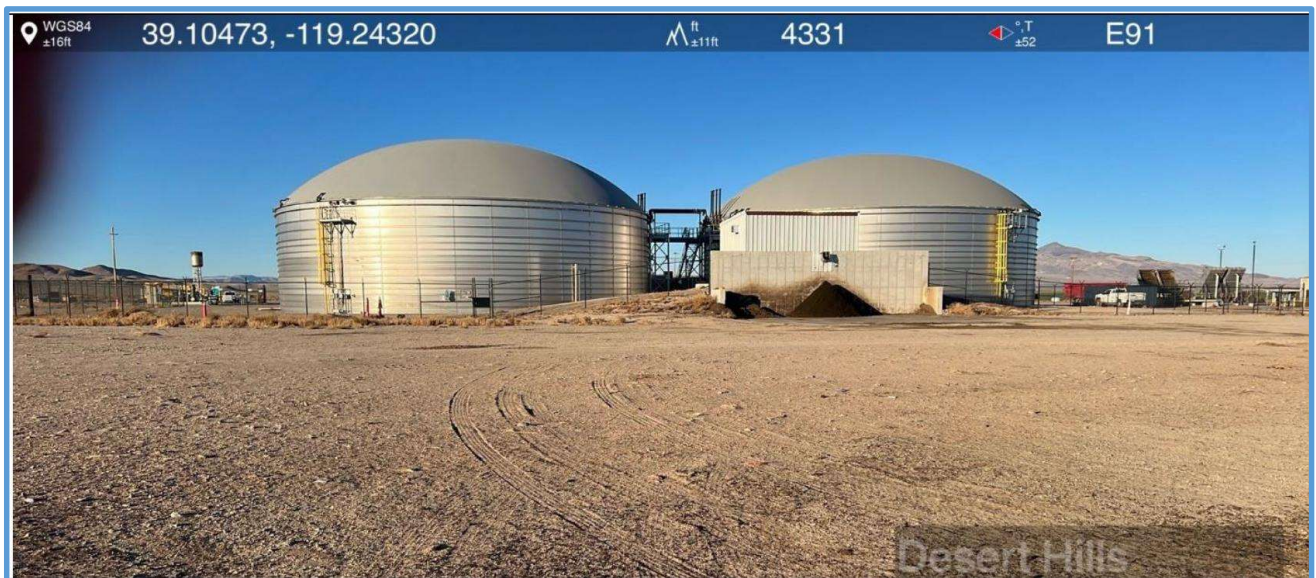
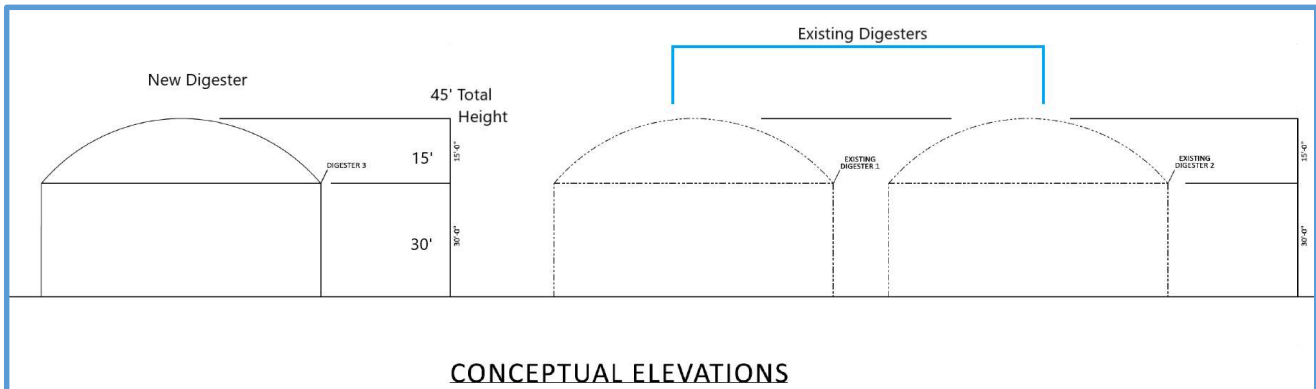
*For the digester tank option, the project would encompass an expansion of approximately 2.5 acres of the approximate 4.3 acres of the existing facility and feedstock pretreatment area for a total disturbance of approximately 6.8 acres for the completed facility. Within the permanent facility footprint, empty areas will*

be utilized for construction area to store materials, equipment, and a temporary office during the building of the additional plant equipment.

If a lagoon option is put into the final design, it would encompass approximately 6 acres in addition to the existing facility. Piping would then connect the existing facility to the lagoon area. Construction areas would be staged in the agreed lease areas for the lagoon and/or for the existing digester facility.

Construction is estimated to begin in the 2nd quarter of 2025 and end in the 2nd quarter of 2026 and building activities are scheduled to occur 6 days a week (max) during 10-hour shifts and will be limited to daylight hours. Nighttime commissioning work could occur during evening hours but will be limited and temporary.

The existing facility includes two digesters: one more is proposed. The images below (with slight modifications) were provided by the applicant and are included in their entirety as attachments to this report.



The “lagoon” option for the system is depicted below , demonstrating the basic design: Building Permits will be required for the construction and applicable site plans will be required for submittal and approval by the County’s Building Department and the Mason Valley Fire Protection District, regardless of the option pursued.

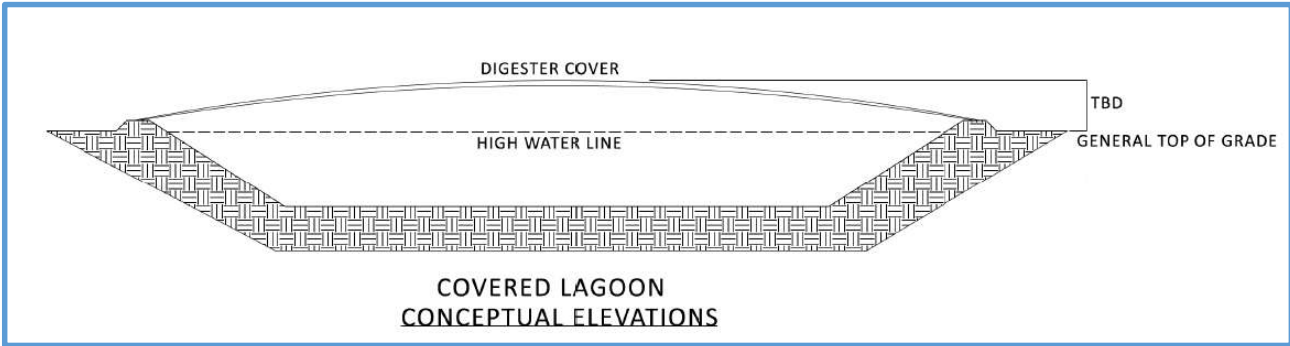


Photo 3 – looking towards the lagoon area

### Conditional Use Permit

When considering applications for a CUP, staff, the Planning Commission, and the Board must evaluate the impact of the conditional use on, and its compatibility with, surrounding properties and neighborhoods in order to mitigate potential impacts of the use at a particular location and make the following findings from *Chapter 15.230.06: FINDINGS*. Each Finding is listed with the applicant’s response and staff’s comments.

### FINDINGS

**Finding A: The proposed use at the specified location is consistent with the policies embodied in the adopted master plan and the general purpose and intent of the applicable district regulations;**

#### Applicant’s Response

- o *Per Policy LU 3.1 Diverse Economic Base, the Project is dependent upon the current dairy operations. Therefore, this Project complements the existing agricultural operations of the dairy. In addition, the Project can also offer more employment opportunities for locals in the area.*



- o *Per Policy LU 4.1 Encourage the Continuation of an Agricultural Lifestyle in appropriate rural areas of the County, the Project has a symbiotic relationship with the dairy by providing an alternative for manure handling practices which in turn create an economic savings for the dairy. The Project also generates new income streams for the dairy from the land lease and manure purchases. In addition, the water is reclaimed and reused in the dairy's operations of barn flushing which helps the dairy preserve any water rights they for their current operation of the dairy facility. This project allows for the dairy to continue its dairy operations while having consistent manure handling practices in accordance to keeping an agricultural lifestyle in this rural area.*
- o *Per Policy LU 5.1 Encourage Resource-Sensitive Growth and Sustainable Design, the Project addresses the waste product (dairy manure) by the dairy to create pipeline quality natural gas, thus supporting the County's renewable energy source goals. Water is also reclaimed during the RNG process and is returned to the dairy for use in barn flushing operations.*

**Staff Comment**

Staff believes the Goals above from the 2020 Master Plan (Chapter 3) are appropriately and thoughtfully quoted by the applicant for the proposed project. The Dairy is in an agricultural region of the County where the nearest residential use that staff could identify is a half-mile away to the south east. The Master Plan designation surrounding the Dairy is Open Space, which are areas that cannot be developed for residential or commercial purposes. This CUP will allow the functioning Dairy to bring the operation into compliance with the State-required statues while also permitting Lyon County to place conditions on the use.

This Finding may be met in the affirmative.

**B. The proposed use is compatible with the character and integrity of adjacent development and neighborhoods and includes improvements or modifications either on-site or within the public rights-of-way to mitigate development related adverse impacts, such as traffic, noise, odors, visual nuisances, or other similar adverse effects to adjacent development and neighborhoods;**

**Applicant's Response**

*The RNG Project is co-located at an existing dairy operation and would not be expanding outside the current dairy boundaries, thus, not impeding surrounding agricultural land and/or neighborhoods.*

**Staff Comment**

The proposed expansion of one more digester and the associated facilities will only further develop between 4.3 to 7.8 acres on the functioning Dairy footprint, which currently operates over 400 acres (on the four Dairy-owned parcels). The operation already includes two digesters and the additional traffic to the site is estimated to be negligible as are any added impacts to neighboring properties. No additional roadway improvements will be required or were recommended by the County's Roads Department staff. This Finding may be met in the affirmative.

**C. The proposed use will not generate vehicular traffic which cannot be accommodated by the existing, planned or conditioned roadway infrastructure;**

**Applicant's Response**

*The Project will utilize the existing dairy operations by accessing the RNG site via Campbell Lane. The RNG facility is small and has limited onsite personnel. The Project would not require modifications to the existing road infrastructure to facilitate operation of the facility. During construction, there may be more equipment brought in on the existing roadways but will be temporary and limited. Extra personnel needed for the construction of the project (i.e. craft) will probably be shuttled in to reduce traffic and impacts to the roads. This Project will not substantially alter existing vehicular traffic as part of operations.*

**Staff Comment**



Staff's comment for this Finding is identical to that for Finding B above.

**D. The proposed use incorporates roadway improvements, traffic control devices or mechanisms, or access restrictions to control traffic flow or divert traffic as needed to mitigate the development impacts;**

**Applicant's Response**

*Since the RNG facility and subsequent Project will have limited onsite personnel, it is not expected to require modification to the existing road infrastructure. With the RNG facility located to the north of the dairy, existing access restrictions can be utilized to control the flow of traffic in and out of the area.*

**Staff Comment**

As stated in this report above, no additional roadway improvements will be required.

**E. The proposed use incorporates features to address adverse effects, including visual impacts and noise, of the proposed conditional use on adjacent properties;**

**Applicant's Response**

*The Project will incorporate the expansion of the current RNG facility. Heights of tanks will be at elevations similar to current tanks and will not impact visually to the surrounding area. Noise impacts will also be minimal since the closest Sensitive Noise Receptor (residential house) is approximately a ½ mile from the RNG facility and the noise from operation cannot be heard when approaching the site and is indistinguishable from the existing dairy operations.*

**Staff Comment**

As previously stated in Staff's Comments to Findings above, the proposed expansion with the larger footprint of the functioning Dairy is not anticipated to generate any additional adverse effects to adjacent properties.

**F. The proposed conditional use complies with all additional standards imposed on it by the particular provisions of this chapter and all other requirements of this title applicable to the proposed conditional use and uses within the applicable base zoning district, including but not limited to, the adequate public facility policies of this title; and**

**Applicant's Response**

*The current dairy facility is located in the Title 10 Zoning of RR-5 (Title 15 RR-20) which is described as: private property under irrigated cultivation or irrigated pasture generally larger than 40 acres. Residential uses may be clustered or transferred away from agricultural lands to conserve large intact agricultural lands. Agricultural related commercial and limited industrial uses and other limited commercial and tourist commercial uses compatible with the agricultural use of the land and rural character.*

*The Project complies and is compatible with the conditional use of the existing dairy facility and complements the dairy operations by providing an alternative handling process of the dairy waste (manure) while water reclamation helps the dairy retain any water rights they currently have. This is also in alignment with the Land Use Goals (Policy LU 1.1) by keeping with the current rural requirements and uses of the property.*

**Staff Comment**

Staff feels that this CUP will bring the legally existing non-conforming use of the methane digesters into compliance with Title 15 in addition to meeting the previously unrecognized NRS statute requirement. As conditioned, staff feels this Finding may be met in the affirmative.

**G. The proposed conditional use will not be materially detrimental to the public health, safety and welfare, and will not result in material damage or prejudice to other properties in the vicinity.**

### **Applicant's Response**

*The Project is subject to various regulatory programs designed to protect public safety, the environment, and the local community which includes the following:*

- *NV DEP Chemical Accident Prevention Program (CAPP)*
- *NV DEP Air Permit Program*
- *EPA Risk Management Plans*
- *Occupational Safety and Health Association (OSHA)*

### **Staff Comment**

The NDEP CAPP and NRS statutes for the methane digester operation represent a more specific regulatory framework to permit the requested operation than is outlined in Title 15 of Lyon County Code. This CUP will permit the County, the State, and the Dairy to all demonstrate compliance with applicable regulations that work to ensure the safety and welfare of Lyon County residents. The Dairy is already in operation and this expansion represents nominal additional impacts.