



# STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

*Jim Gibbons, Governor*

*Allen Biaggi, Director*

*Leo M. Drozdoff, P.E., Administrator*

## NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

### FACT SHEET

(pursuant to NAC 445A.236)

**Permittee:** Rockview Farms, Inc.  
7011 Stewart & Gray Road  
Downey, CA 90241-4347

**Permit:** NV0023027 – Renewal

**Location:** Ponderosa Dairy  
900 Mecca Road  
11 miles south of the junction of US Highway 95 and State Highway 373  
Amargosa Valley, Nye County, Nevada 89020

Township 17 S, Range 49 E, Portions of Sections 9, 10 & 15 MDB&M  
Dairy 1 - Latitude: 36° 29' 41.3" N; Longitude: 116° 27' 20.2" W  
Dairy 2 - Latitude: 36° 29' 42.0" N; Longitude: 116° 26' 01.0" W

**Dairy 3 - Latitude: 36° 29' 39.0" N; Longitude: 116° 27' 41.0" W**

**Flow:** 1.000 million gallons per day (MGD) – 7-day Average

**General:** The Permittee has applied for a National Pollutant Discharge Elimination System (NPDES) permit renewal, NV0023027, to continue to discharge dairy manure and process wastewater to groundwaters and surface waters of the State from the Ponderosa Dairy. The dairy began operation in 1993. This permit was originally issued June 16, 2000 and has been modified several times including a February 28, 2002 major modification that increased the total permitted flow from 0.350 million gallons per day (MGD) to 0.625 MGD. As part of this permit renewal, the Permittee has proposed to further increase the permitted discharge to 1.000 MGD.

The facility is defined as a concentrated animal feeding operation (CAFO) because the dairy has been designed to confine at least 700 mature dairy cows for 30 days or more in a 12-month period in an area devoid of vegetation during the normal growing season. As a CAFO, the facility is required to contain all manure and process wastewater from the production area, except overflow resulting from a storm greater than the 25-year, 24-hour storm event, 1.9 inches. To qualify for this exemption, the production area must be properly designed, constructed, operated, and maintained to contain manure, process wastewater, direct precipitation, and the runoff from the design storm event. CAFOs that land apply manure and/or process wastewater are required to comply with a nutrient management plan (NMP). CAFOs are regulated based primarily on nutrient application rates, NMP compliance, not the number of animals at the facility. Runoff from land application areas where manure and/or process wastewater have been applied in accordance with an NMP is not regulated.

The facility consists of three adjacent dairy facilities, Dairy 1, Dairy 2, and Dairy 3, owned and operated by the Permittee. Each dairy milks twice per day. Process wastewater, approximately 301.13 million gallons (MG) per year, generated at the facility includes liquid manure, cow wash water, barn wash water, and water from washing the lines and milk storage tanks. All three dairies have earthen corrals with concrete feed alleys; animal bedding is not utilized. Based on data from the Natural Resource Conservation Service (NRCS) NV - Dairy Planning Data Sheet, 8,200 milkers, 900 dry cows, 600 heifers, 1,400 pounds average cow weight, 600 pounds average heifer weight, 80 pounds of manure per day per 1,000 pounds for milkers, 82 pounds per day for dry cows, 85 pounds of manure per day per 1,000 pounds for

This Document is for Electronic Distribution

heifers and 365 days per year, the facility generates approximately 190,000 tons of wet manure per year. Per page 4 of the December 2005 Comprehensive Nutrient Management Plan (CNMP), Summary of Plan, the facility includes 220.53 acre-feet, 71.87 MG, of process wastewater storage capacity, operational and non-operational. Microbes are added to all three pond systems to facilitate solids decomposition and to reduce odors. The ponds are also aerated for the same purpose.

Dairy 1 and Dairy 2 are approximately the same size in terms of cows housed, land, and corral areas, Dairy 1 – 64.5 acres, 2,300 milking cows, 200 dry cows, 250 heifers, Dairy 2 – 69.9 acres, 2,700 milking cows, 100 dry cows, 150 heifers, and are operated in a similar manner. The two dairies are proposed to generate a monthly average total flow of approximately 0.560 MGD gallons of process wastewater per day, currently permitted at 0.350 MGD. Each dairy has a 0.08-MG concrete sump that receives process wastewater from the milking barns. The process wastewater is pumped from the sumps to the north end of the corrals to flush the concrete feed lanes. The flush water and any runoff from the corrals due to precipitation is collected in 0.10 MG concrete sumps at south end of the corrals. The wastewater is pumped from these sumps through static screen separators and sand separators prior to discharge to a series of holding/settling ponds and lagoons for Dairy 1 and a single holding pond for Dairy 2.

Operation of Dairy 3 is essentially the same as Dairies 1 and 2, except the feed lanes at Dairy 3 are not flushed. The Dairy 3 lot size is 69.1 acres with 3,200 milking cows, 600 dry cows, and no heifers. Dairy 3 has a 0.060 MG concrete sump that receives process wastewater from the barn. This water is pumped through static and sand separators prior to discharge to the pond system.

Dairy 1 has two lagoons, 3.49 MG total capacity, and eight evaporation/settling ponds, 11.30 MG total capacity per page 4 of the CNMP Summary of Plan. These compacted soil ponds are used on a rotating basis. Only three or four ponds are used at a time; each of the ponds is equipped with overflow pipes to stabilize fluid levels and to maintain a minimum of two feet of freeboard. Process wastewater from the final pond, the 5.08 MG Pond 7, is used for sprinkler and flood irrigation on the land application areas. Due to the lack of pond liner documentation, the groundwater at this pond system is monitored for process wastewater leakage. Monitoring well MW-1, completed in April 2002 to 95 feet below ground surface (bgs), is located south of the Dairy 1 pond system.

Due to increasing nitrate concentrations in the groundwater at monitoring well MW-2, the three Dairy 2 compacted soil lagoons, 14.5 MG total capacity, were replaced in 2005 by a 10.0 MG, with a 2.75-foot freeboard, 60-mil HDPE lined pond. MW-2, total depth 100 feet bgs, was located south of the original Dairy 2 pond system and reportedly has been abandoned as required by Part I.A.26. of the permit. Process wastewater can be routed from the Dairy 2 lagoon system to the Dairy 1 lagoon system. Process wastewater from Dairies 1 and 2 can be pumped to the 19.87 MG unlined catchment basin for emergency storage.

Construction of Dairy 3 was completed in February 2003. The Dairy 3 pond system consists of two settling lagoons and two large storage ponds with a total operating capacity of 48.79 MG and three feet of freeboard; the 60-mil HDPE lined North First-stage Lagoon, 2.36 MG; and East Holding Pond, 22.77 MG; and the unlined South First-stage Lagoon, 2.89 MG; and West Holding Pond, 20.77 MG. The unlined ponds provide storage capacity above the minimum 25-year, 24-hour storm event requirement. Monitoring wells are not required for pond systems constructed to current lined pond standards. The Dairy 3 process wastewater system is connected to the Dairies 1 and 2 process wastewater system by a pipeline.

Dairy 3 was constructed above the preconstruction grade to minimize the effects of stormwater run-on. Stormwater runoff from the Dairy 3 corrals is directed to one of four concrete sumps located south of the corrals. This process wastewater is pumped with 350-gallon per minute pumps to the North Lagoon. In the event that the pumps cannot keep up with stormwater runoff, the sumps are equipped with overflow pipelines that, when opened, direct stormwater to the West Holding Pond. Due to lack of a liner, the West Holding Pond must be evacuated within 72 hours of receiving process wastewater.

The separated solids, manure removed from the corrals, and solids removed during pond cleaning are composted at one of two composting facilities in accordance with the comprehensive nutrient management plan. The compost facilities must be constructed to NRCS, Conservation Practice Standard Code 317, Composting Facility, specifications and are included in the NV0023027 production area. The Permittee may compost manure

This Document is for Electronic Distribution

transferred from other permitted CAFOs including, but not limited to, Beverly Hills Dairy, NEV2006504, at either compost facility.

The large compost facility, 30 acres, is permitted by the Bureau of Waste Management (BWM), SW289REV01, to accept 115,000 cubic yards (yd<sup>3</sup>) of compostable feedstock per year and to store a maximum of 27,500 yd<sup>3</sup> of intermediate product and 13,750 yd<sup>3</sup> of finished product. This facility produces approximately 14,000 tons of compost per year. The large compost facility is reportedly constructed of compacted type 2 gravel with a north to south grade of approximately 0.4 percent and a 4-foot tall berm at the south end but design drawings have not been submitted to the Division. The large compost facility is operated as a windrow operation with multiple windrows of approximately 500 feet long, fifteen feet wide by six feet high. This composting process takes three to four months with the distribution of the finished product regulated by BWM. This compost is transferred off-site for commercial distribution.

According to the Animal Mortality Management Plan (AMMP), the area of the small compost facility is 10 acres. The small compost facility is also reportedly constructed of compacted type 2 gravel and is relatively flat but design drawings have not been submitted to the Division. The small compost facility produces approximately 800 tons of compost per year. The windrows of the small compost facility are limited to five feet high. Due to the lack of turning, the material at the small facility is composted for approximately one year. This compost is not permitted for distribution to the public and currently may only be used at the facility and Beverly Hills Dairy. All compost land applied at the facility or Beverly Hills Dairy will be accounted for in a CNMP or an NMP.

The CNMP was developed based on a population of 8,200 milking cows, 900 dry cows, and 400 heifers and 865 acres of land application area. The NRCS Environmental Assessment and Resource Inventory Checklist states that organic farming will be employed with no pesticide use. The stated goals of the CNMP are to eliminate the need for chemical fertilizers, preclude discharge of pollutants from the 25-year, 24-hour storm event, to minimize groundwater contamination, and to recycle the waste produced through soil and crops to the fullest extent possible. The approved CNMP, including 2007 amendments, exceeds the NMP requirements and is available for public review at the Division's Carson City office. As stated in the CNMP, nutrient management must be revised annually as a minimum. Changes to cropping practices, nutrient application rates, etc. will be authorized by Division approval of revisions to the CNMP.

As part of the CNMP, the Permittee determined that seven fields have a low phosphorus hazard class and the other four fields have a medium phosphorus hazard class, therefore, all nutrient application is based on nitrogen. This analysis was based on the Natural Resources Conservation Service (NRCS), New Mexico Phosphorus Index (NMPI); future

This Document is for Electronic Distribution

phosphorus determinations shall be based on the Nevada Phosphorus Index that was adapted by NRCS from the NMPI in 2006. The annual nitrogen application rate from all sources is limited to the annual crop nitrogen uptake rate.

The following table summarizes the Permittee's proposed crops for the five-year term of the permit:

Field	Area (acres)	Year				
		2007	2008	2009	2010	2011
1	30	a.	a.	a.	a.	a.
2	20	a.	a.	a.	a.	a.
3	120	a.	a.	a.	a.	a.
4	40	a.	a.	a.	a.	a.
5	120	b. or d.	e.	e.	e.	e.
6	85	b.	b.	b.	b.	b.
12	120	a.	a.	a.	a.	a.
15	40	c.	d.	c.	c.	c.
17	125	a.	a.	a.	a.	a.
18	125	a. or b.				
21	40	b.	b.	b.	b.	b.

- a. Pasture Grass-Summer crop/Rye-Winter crop
- b. Winter Forage/Summer fallow
- c. Alfalfa
- d. Alfalfa-Sordan/ Winter Forage-Alfalfa
- e. Winter Forage or Alfalfa

The following table summarizes the Permittee's proposed nutrient application:

Field	Area (acres)	Crop	Design Yield (tons/acre)	P Hazard Class	Liquid Applied (MG)	Nitrogen Applied (lb/A)	Irrigation Method	Other N Sources	Application Timing
1	30	a.	Grazed	Low	15.07	507	Flood	Manure <sup>3</sup>	S/W
2	20	a.	Grazed	Low	10.05	507	Flood	Manure <sup>3</sup>	S/W
3	120 <sup>1</sup>	a.	Grazed	Medium	59.95	504	CP	Manure <sup>3</sup>	S/W
4	40	a.	Grazed	Medium	15.53	507	Flood	Manure <sup>3</sup>	S/W
5	120 <sup>1</sup>	b. d. e.	5 - 6 9 - 10 5 - 6 or 9	Low	22.64 63.63 22.64 or 63.63	198 536 198 or 536	CP	Compost <sup>4</sup>	W S/W W or S
6	85	b.	5 - 6	Low	16.03	198	CP	Compost <sup>4</sup>	W
12	120	a.	Grazed	Medium	59.62	504	CP	Manure	S/W
15	40	c. d.	9 9 - 10	Medium	21.18 21.18	535 535	Flood	None	S S/W
17	125 <sup>2</sup>	a.	Grazed	Low	62.11	503	CP	Manure	S/W
18	125	a. b.	Grazed 5 - 6	Low	63.46 25.21	503 211	CP	Manure Compost <sup>4</sup>	S/W W
21	40	b.	5 - 6	Low	4.34	150	Flood	Compost <sup>4</sup>	W

Notes:

- <sup>1</sup>: Listed as 110 acres on Ponderosa Dairy Site Plan Runon/Runoff Control of CNMP.
- <sup>2</sup>: Area may have to be reduced due to Barn 2 Lagoon construction as shown in 08/03/05 Construction Plan Map and 02/15/05 Telesto Nevada, LLC Technical Memorandum, Figure 1, Barn 2 Lagoon Location Map.
- <sup>3</sup>: Manure from grazing animals.

This Document is for Electronic Distribution

4: Compost from the dead animal compost facility at 2 tons per acre.  
 CP: Center pivot. lb/A: Pounds per acre.  
 MG: Million gallons. ac: Acre.  
 S: Summer. W: Winter.

The nitrogen application rates are based on the agronomic rate using nutrient recommendations from NRCS Conservation Practice Standard Code 590, Nutrient Management. The CNMP is based on five years of cropping and may be extended beyond the initial five years, provided that the underlying conditions, phosphorus index, crop yields, etc., have remained constant.

There are three (3) dairy water supply wells and six (6) irrigation wells. The dairy wells are used to supply all of the water that becomes effluent. Backflow prevention devices have been installed on all wells with process wastewater connections. These mechanical devices are inspected and certified annually by an independent contractor.

The AMMP specifies that all dead animals, estimated to be 350 cows per year, will be composted on-site and the finished compost is used on-site on fields producing crops for animal consumption, not sold to third parties. The small composting facility is reportedly 2 to 2.5 miles from the nearest non-dairy residence.

The CNMP also includes a Safety and Emergency Action Plan.

**Receiving Water Characteristics:** The Permittee uses a combination of evaporation and land application to dispose the process wastewater generated at the facility. The Permittee is discharging to groundwaters, may discharge to surface waters of the State and is requesting authorization to increase the discharge volume. The Permittee is allowed to discharge to surface waters only during storms greater than the 25-year, 24-hour storm event or after a series of chronic events that exceed the total volume of the 25-year, 24-hour storm event. Any surface water discharge would be to an unnamed dry wash tributary to the ephemeral Amargosa River. As an ephemeral water body, only the NAC 445A.118, Water quality criteria for ammonia, and NAC 445A.121, Standards applicable to all surface waters, apply to any surface water discharge from the facility.

The Permittee reports that the depth to groundwater at the Dairy ranges from 81 feet below ground surface (bgs) to 95 feet bgs in the CNMP Inventory Data Sheet. Based on limited September 2001 data from three wells, the groundwater beneath the Dairy is of good quality with a total dissolved solids concentration ranging from 316 mg/L to 328 mg/L, a chloride concentration ranging from 11 mg/L to 14 mg/L, a nitrate as nitrogen

concentration ranging from 1.29 mg/L to 1.57 mg/L, and a total nitrogen as nitrogen concentration ranging from 1.79 mg/L to 2.07 mg/L.

The monitoring well data below is from the April 2002 through June 2004 time period:

Parameter	MW-1			MW-2		
	Average	Maximum	Minimum	Average	Maximum	Minimum
Nitrate -N (mg/L)	2.3	7.7	ND	7.0	11.0	2.0
Total Nitrogen-N (mg/L)	3.1	8.54	1.7	7.8	11.98	4.5
TDS (mg/L)	395	732	266	1244	2010	1030
Chloride (mg/L)	46	135	14	231	270	95
pH (SU)	7.95	8.32	7.17	7.46	8.11	7.13
Depth to GW (feet)	85.4	88.0	81.0	89.1	98.8	85.0

The Permittee has identified 21 wells within a 1-mile radius of the property boundary and 12 wells, not including the two monitoring wells, within the property boundary.

**Compliance History:** The facility has an extensive history of compliance issues due primarily to elevated nitrate concentrations at the Dairy 2 pond system, MW-2, and to exceeding the flow limitations at Dairies 1 & 2 and Dairy 3. Below is a compliance summary from the first quarter of 2004 through the second quarter of 2006, the most recent data available, from the Bureau's Compliance Database:

Year	Quarter	Location	Parameter	Reported Value/Permit Limitation
2004	Q1	Dairies 1 & 2	Flow	0.491/0.350 MGD
		Dairy 3	Flow	0.334/0.275 MGD
		Nitrate	MW-2	9.0 mg/L/7.0, 9.0, 10.0
		TKN	MW -1 & 2	Results not reported

This Document is for Electronic Distribution

2004	Q2	Dairies 1 & 2	Flow	0.427/0.350 MGD
		Dairy 3	Flow	0.340/0.275 MGD
		Nitrate	MW-2	8.5 mg/L/7.0, 9.0, 10.0
2004	Q3	Dairies 1 & 2	Flow	0.430/0.350 MGD
		Dairy 3	Flow	0.445/0.275 MGD
		Failure to sample		MW 1 & 2
2004	Q4	Dairy 3	Flow	0.409/0.275 MGD
2005	Q1	Dairies 1 & 2	Flow	0.386/0.350 MGD
		Dairy 3	Flow	0.291/ 0.274 MGD
2006	Q1	Dairy 3	Flow	0.297/0.275 MGD

There were no exceedances in the second quarter of 2006 or the quarters since the first quarter of 2004 not listed.

In September 2003, nitrate as nitrogen was detected in MW-2 at a concentration of 11.0 mg/L. This elevated nitrate level triggered the replacement of the unlined Dairy 2 pond system with the current HDPE-lined pond. MW-2 was resampled in October 2003 with a nitrate concentration of 6.7 mg/L.

These flow limit violations are not considered a threat to the environment, because the nitrogen application rates of the approved NMP have not been exceeded. To address this issue, the Permittee has applied for an increase in the total flow effluent discharge limitation to 1.000 MGD and an elimination of the flow limits from Dairies 1 & 2 and Dairy 3.

**Proposed Effluent Limitations:** During the period beginning on the effective date of this permit and lasting until the permit expires, the Permittee is authorized to discharge to the Amargosa River via a dry wash during qualifying storm events and to groundwater of the State via dairy evaporation/settling ponds and crop irrigation/effluent reuse.

Effluent samples taken in compliance with the monitoring requirements specified below shall be taken:

- a. Process wastewater from each of the three dairies prior to dilution with irrigation water (3), and finished compost from each composting facility (2), minimum five sources total sources (If manure is transferred to any site other than the two compost facilities, the manure must be characterized.);
- b. Storm-related discharge to surface waters of the State from each point of discharge;
- c. Soil from each land application area eligible for land application of compost and/or process wastewater (maximum eleven areas);
- d. Each land application area that has had compost and/or process wastewater applied (maximum eleven areas);
- e. Each irrigation well used during the year (6 wells at permit issuance);
- f. Dairy 1 flow meter, process wastewater only;
- g. Dairy 2 flow meter, process wastewater only; and
- h. Dairy 3 flow meter, process wastewater only.

The discharge shall be limited and monitored by the Permittee as specified below:

### **TABLE I.1 - Effluent Limitations**

This Document is for Electronic Distribution

<i>Parameters</i>	<i>Effluent Discharge Limitations</i>	MONITORING REQUIREMENTS		
		Sample Locations	Measurement Frequency	SAMPLE TYPE
Flow, total (MGD)	1.000	f. + g. + h.	Weekly	CALCULATION
Dairies 1, 2, 3 Flow, irrigation	Monitor and Report	f., g., h. e.	Continuous	METER READINGS
pH (standard units)	Monitor and Report	a.	Annually <sup>1</sup>	Discrete
		b.	Each discharge <sup>2</sup>	Discrete
Chlorides (mg/L)	Monitor and Report	a. <sup>5</sup>	Biannually <sup>4</sup>	Composite
		b.	Each discharge <sup>2</sup>	Discrete
Total Dissolved Solids (mg/L)	Monitor and Report	a. <sup>5</sup>	Biannually <sup>4</sup>	Composite
		b.	Each discharge <sup>2</sup>	Discrete
Total Suspended Solids (mg/L)	Monitor and Report	a. <sup>5</sup>	Annually <sup>1</sup>	Composite
		b.	Each discharge <sup>2</sup>	Discrete
5-day Biochemical Oxygen Demand (mg/L)	Monitor and Report	a. <sup>5</sup>	Annually <sup>1</sup>	Composite
		b.	Each discharge <sup>2</sup>	Discrete
Total Nitrogen -N (mg/L, mg/kg) <sup>3</sup>	Monitor and Report	a.	Biannually <sup>4</sup>	Composite
		b.	Each discharge <sup>2</sup>	Discrete
		c.	( <sup>6</sup> )	Composite
		e. <sup>11</sup>	Annually <sup>1</sup>	Discrete
Total Nitrogen -N Applied (lbs/acre)	See Part I.A.3. for Annual Limit <sup>9</sup>	d.	Annually <sup>1</sup>	Calculation
Total Kjeldahl Nitrogen – N (mg/L, mg/kg) <sup>3</sup>	Monitor and Report	a.	Biannually <sup>4</sup>	Composite
		b.	Each discharge <sup>2</sup>	Discrete
		c.	( <sup>6</sup> )	Composite
Nitrate –N (mg/L, mg/kg) <sup>3</sup>	Monitor and Report	a.	Biannually <sup>4</sup>	Composite
		b.	Each discharge <sup>2</sup>	Discrete
		c.	( <sup>6</sup> )	Composite
Ammonia -N (mg/L, mg/kg) <sup>3</sup>	Monitor and Report	a.	Biannually <sup>4</sup>	Composite
		b.	Each discharge <sup>2</sup>	Discrete
		c.	( <sup>6</sup> )	Composite
Total Phosphorus -P (mg/L, mg/kg) <sup>3</sup>	Monitor and Report	a.	Biannually <sup>4</sup>	Composite
		b.	Each discharge <sup>2</sup>	Discrete
		c.	( <sup>6</sup> )	Composite
		e. <sup>11</sup>	Annually <sup>1</sup>	Discrete
Total Phosphorus -P Applied (lbs/acre)	Monitor and Report	d.	Annually <sup>1</sup>	Calculation
Fecal Coliform (CFU or MPN/100 mL)	Monitor and Report	a. <sup>5</sup>	Annually <sup>1</sup>	Composite
		b.	Each discharge <sup>2</sup>	Discrete
Manure and/or Process Wastewater Applied <sup>10</sup> (units)	Monitor and Report	a.	Monthly	Estimate
Crop Yield <sup>8</sup> (tons/acre)	Monitor and Report	d.	Annually <sup>1</sup>	Calculate
Volume of Discharge (gallons)	Monitor and Report	b.	Each discharge <sup>2</sup>	Estimate

Notes:

- 1: Annual characterizations shall be conducted in the fourth quarter and reported in the fourth quarter Discharge Monitoring Report (DMR).
- 2: The Permittee shall collect the sample within 30 minutes of the first knowledge of the discharge. If sampling in that period is not possible due to dangerous weather conditions, collect the sample as soon as possible after suitable conditions occur, and document the reason for delay. Also, report date and time of each discharge.
- 3: mg/L for liquids, mg/kg for solids.
- 4: Biannual characterizations shall be conducted in the first and third quarters and reported in the appropriate DMR.
- 5: Process wastewater only – three values.

This Document is for Electronic Distribution

6. Annually cropped land application areas shall have soil analyses every three years or when a major change in crop rotation occurs. Perennially cropped fields shall have soil analyses every five years.
7. List each type of material land applied separately and include the date of each application.
8. If the crop yield is not within 10% of the expected crop yield of the Nutrient Management Plan (NMP), the NMP shall be reviewed and revised, as necessary.
9. Report separately for each land application area.
- The Permittee shall be responsible for reporting the total nitrogen that may be applied to each land application area, permit limitation, from the most recent Division approved NMP and this permit in each DMR submitted to the Division.
10. Solids Pounds/acre.
- Liquids Gallons/acre.
11. The number of production wells analyzed annually for nutrients may be reduced by the demonstration through a statistical analysis that the groundwater used for irrigation is of consistent quality. The number of wells analyzed annually cannot be reduced below one.
- mg/L: Milligram per liter. CFU: Colony Forming Unit.
- gpd: Gallons per day. MPN: Most Probable Number.
- N: As nitrogen. mL: Milliliter.
- P: As phosphorus. NMP: Nutrient Management Plan.
- mg/kg: Milligrams per kilogram. lbs/A: Pounds per acre.

Discrete groundwater samples shall be collected to confirm the effective protection of groundwater under the established discharge conditions of this permit. If the Permittee constructs liners meeting the Division’s minimum specifications in all ponds and lagoons, monitoring wells shall not be required by this permit.

All monitoring wells shall be monitored in accordance with the following parameters:

**TABLE I.2. – Groundwater Characterization**

PARAMETER	REQUIREMENTS	SAMPLE LOCATION(S) <sup>1</sup>	FREQUENCY	SAMPLE TYPE
Depth to Groundwater (feet)	Monitor & Report	MW-1 <sup>2</sup>	Quarterly	Field Measurement
Groundwater Elevation (feet)	Monitor & Report	MW-1 <sup>2</sup>	Quarterly	Calculate
pH (standard units)	Monitor & Report	MW-1 <sup>2</sup>	Quarterly	Discrete
Chlorides (mg/L)	Monitor & Report	MW-1 <sup>2</sup>	Quarterly	Discrete
Nitrate -N (mg/L)	Monitor & Report	MW-1 <sup>2</sup>	Quarterly	Discrete
Total Nitrogen –N (mg/L)	10.0	MW-1 <sup>2</sup>	Quarterly	Discrete
Total Dissolved Solids (mg/L)	Monitor & Report	MW-1 <sup>2</sup>	Quarterly	Discrete

Notes:

1. Additional monitoring wells may be added to the permit as a minor modification.
2. The Permittee may stop monitoring MW-1 upon lining the Dairy 1 pond system, providing documentation to the Division that MW-1 has been properly abandoned as required by Part I.A.26., and the groundwater total nitrogen concentration at MW-1 does not exceed the background total nitrogen level.
- mg/L: Milligrams per liter. MW-1: Dairy 1 pond system monitoring well.
- N: As nitrogen.

The detection of concentrations of total nitrogen as nitrogen (-N) in groundwater samples invoke the following limitations and response requirements:

-If the total nitrogen-N concentration increases to 7.0 mg/L, an alternate method of process wastewater and/or manure or compost storage, approved by the Division, shall be selected;

-If the total nitrogen-N concentration increases to 9.0 mg/L, construction of the approved alternate process wastewater and/or manure or compost storage facility shall begin; and

This Document is for Electronic Distribution

-If the total nitrogen-N concentration increases to 10.0 mg/L, discharge to groundwater shall cease.

**Schedule of Compliance:** The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications that the Administrator may make in approving the schedule of compliance.

- a. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.
- b. Within thirty (30) days of the permit effective date, the Permittee shall submit to the Division an updated NMP. The updated NMP shall include any information that may be out of date, e.g. copies of permits, plans that do not include Dairy 3 or the new Dairy 2 pond, etc.

The updated NMP may include the appropriate information required by WTS-2 Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant or a separate O & M Manual shall also be submitted within thirty days of the permit effective date.

- c. Within sixty (60) days of the permit effective date, the Permittee shall:
  - i. Submit to the Division a certification stamped by a Nevada licensed Professional Engineer stating that the two composting facilities at the permitted site were constructed in accordance with NRCS Conservation Practice Standard Code 317, Composting Facility, October 2003 or more recent; or
  - ii. Install groundwater monitoring wells and submit to the Division a groundwater monitoring plan, including a map identifying each well, the well locations, and the screened intervals to demonstrate that the composting facilities are/have not degrading/ed groundwaters of the State; or
  - iii. Submit to the Division a schedule to complete the upgrade and/or replacement of the compost facilities to the standards of NRCS Conservation Practice Standard Code 317, within one year.
- d. Within sixty (60) days of the permit effective date, the Permittee shall:
  - i. Submit to the Division a certification stamped by a Nevada licensed Professional Engineer stating that the facility production areas have been constructed to contain, with no discharge to waters of the State, all process wastewater, including direct precipitation and runoff from the 25-year, 24-hour storm event; or
  - ii. Install up- and downgradient groundwater monitoring wells and submit to the Division a groundwater monitoring plan, including a map of the well locations, to demonstrate that the production area is/has not degrading/ed groundwaters of the State; or
  - iii. Submit to the Division a schedule to complete the upgrade and/or replacement of the production area, within one year.
- e. Within twenty-four (24) hours of receiving any water other than direct precipitation in the unlined West Holding Pond, the Permittee shall notify the Bureau of Water Pollution Control Compliance Coordinator at (775) 687-9438.
- f. Within seventy-two (72) hours of receiving any process wastewater due to a storm event, the unlined West Holding Pond of Dairy 3 shall be completely evacuated.
- g. Within forty-five (45) days of the second use of the West Holding Pond for containment of process wastewater, the Permittee shall:

This Document is for Electronic Distribution

- i. Construct groundwater monitoring wells up- and downgradient of the West Holding Pond; or
- ii. Submit to the Division a design and schedule for the installation of a 60-mil HDPE liner for the West Holding Pond.
- h. At least ninety (90) days prior to the closure of a lagoon, pond, surface impoundment, or other manure or process wastewater storage or treatment facility, the Permittee shall submit to the Division for review and approval a component closure plan or facility closure plan, if operations will cease.
- i. At least ninety (90) days prior to the temporary closure of a lagoon, pond, surface impoundment, or other manure or process wastewater storage or treatment facility, the Permittee shall submit to the Division for review and approval a component temporary closure plan or facility temporary closure plan, if operations will temporarily cease.
- j. Within seven (7) days of closure or temporary closure of a lagoon, pond, surface impoundment, or other manure or process wastewater storage or treatment facility, the Permittee shall notify the Division of the closure.
- k. Within five (5) days of the permit effective date, the Permittee shall submit to the Division documentation of compliance NAC 534.420 with respect to the abandonment of monitoring well MW-2.
- l. Within ten (10) days of the abandonment of any monitoring or production well at the facility, the Permittee shall submit to the Division documentation of compliance NAC 534.420.

**Rationale for Permit Requirements:** Monitoring requirements for the parameters specified in Table I.1: Discharge Monitoring are being proposed to ensure that the Permittee has appropriate compost and process wastewater data to comply with the Nutrient Management Plan and to determine any potential impact to waters of the State that may occur in response to a storm related discharge or seepage from an unlined process component.

**Flow:** Although the Permittee requested daily maximum and 30-day average flows of 1.403 MGD in the permit renewal application, the Dairy Planning portion of the CNMP was prepared based on daily maximum and 30-day average flows of 1.000 MGD. The CNMP flow is proposed for inclusion in the permit as a seven-day average. The Division determined that weekly meter readings will be adequate for the monitoring of dairy irrigation discharge flows.

Annual monitoring of the irrigation water flow from the wells is necessary to calculate the nitrogen load from this source.

**Nutrients, pH, Chlorides, Total Dissolved Solids, Total Suspended Solids, Fecal Coliform:** Monitoring of the nitrogen species, total phosphorus, pH, chlorides, total dissolved solids, total suspended solids, and fecal coliform of the discharge is required because these are the parameters most likely to be present in the discharge. These parameters are not limited because much of the data is used to determine compost and/or process wastewater application rates and there are only narrative water quality standards for the ephemeral receiving waters.

**Monitoring Well 1:** Monitoring of groundwater quality is required to verify that the groundwater has not been degraded by the effluent in the Dairy 1 unlined pond system. Nitrogen, total dissolved solids and chlorides have been determined to be the most likely groundwater contaminants from a facility of this type. Although the drinking water standard is 10.0 mg/L nitrate as N, the Division has applied a 10.0 mg/L total nitrogen as N permit limitation because ammonia in groundwater is converted to nitrate under most conditions.

**Procedures for Public Comment:** The Notice of the Division's intent to issue a permit authorizing the continued discharge to the ground and surface waters of the State of Nevada subject to the conditions contained within the permit is being sent to the **Las Vegas Review-Journal** and the **Pahrump Valley Times** for publication. The notice is being mailed to interested persons on the Division's mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of the public notice. The comment period can be extended at the discretion of the Administrator. The deadline for receipt of all comments pertaining to this proposed permit is 5:00 PM March 12, 2007.

This Document is for Electronic Distribution

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

**Proposed Determination:** The Division has made the tentative determination to issue the proposed permit for a term of five (5) years.

Prepared by: Bruce Holmgren  
February 2007