

**GROUND WATER DISCHARGE PERMIT - RENEWAL AND MODIFICATION
EXISTING DAIRY FACILITY with a LAND APPLICATION AREA
Double Aught Dairy, DP-480**

I. INTRODUCTION AND SUMMARY

The New Mexico Environment Department (NMED) issues this Discharge Permit Renewal and Modification (Discharge Permit), DP-480, to Tom Visser, Owner/Lessor, and Jason Flores, Lessee (permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978, §§ 74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 and 20.6.6 NMAC.

NMED's purpose in issuing this Discharge Permit is to control the discharge of water contaminants from Double Aught Dairy (dairy facility) for the protection of ground water and those segments of surface water gaining from ground water inflow, for present and potential future use as domestic and agricultural water supply and other uses, and to protect public health.

The activities which produce the discharge, the location of the discharge, and the quantity, quality and flow characteristics of the discharge are briefly described as follows:

A maximum daily discharge volume of 70,000 gallons per day (gpd) of wastewater may be discharged from the production area. Wastewater flows to a concrete-lined sump and is pumped through a screen solids separator into a manure-lined wastewater impoundment from where it is pumped through a second screen solids separator into a three-cell synthetically lined impoundment system for storage prior to land application. Wastewater is land applied by center pivot irrigation to up to 125 acres of irrigated cropland under cultivation. The modification consists of combining the facilities associated with the former Baca Linda Dairy (DP-487) into Double Aught Dairy (DP-480), and decreasing the land application area from 480 acres to 125 acres, both of which result in a change in the location of the discharge. The discharge contains water contaminants or toxic pollutants which may be elevated above the standards of Section 20.6.2.3103 NMAC.

The dairy facility is located at 222 East Darby Road, approximately nine miles southeast of Roswell, in Sections 14, 15 and 23, Township 12S, Range 25E, Chaves County. Ground water most likely to be affected is at a depth of approximately 57 to 114 feet and had a pre-discharge total dissolved solids concentration of approximately 1,745 milligrams per liter.

The original Discharge Permit, DP-480, was issued on October 15, 1987, and subsequently renewed and renewed and modified on February 19, 1993, and July 13, 2000. The original Discharge Permit, DP-487, was issued on October 14, 1987, and subsequently renewed and renewed and/or modified on February 19, 1993, February 7, 2000, July 28, 2003, and September 12, 2005. The application consists of the materials submitted by the permittee (Tom Visser, Owner/Lessor) dated March 30, 2012, and materials contained in the administrative record associated with issuance of this Discharge Permit. The discharge shall be managed in accordance with all applicable requirements of the Dairy Rule (20.6.6 NMAC) and this Discharge Permit.

Issuance of this Discharge Permit does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

The following acronyms and abbreviations may be used in this Discharge Permit:

Abbreviation	Explanation	Abbreviation	Explanation
Cl	chloride	NO ₃ -N	nitrate-nitrogen
gpd	gallons per day	S	Sulfur
LADS	land application data sheet(s)	SO ₄	Sulfate
mg/L	milligrams per liter	TDS	total dissolved solids
NMAC	New Mexico Administrative Code	TKN	total Kjeldahl nitrogen
NMED	New Mexico Environment Department	WQA	New Mexico Water Quality Act
NMP	Nutrient management plan	WQCC	Water Quality Control Commission
NMSA	New Mexico Statutes Annotated		

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. The permittee is discharging from a facility that meets the definition of “dairy facility” and is subject to the Dairy Rule (20.6.6 NMAC). This dairy facility meets the definition of “existing dairy facility”.
2. The permittee is discharging effluent or leachate from the dairy facility that may move directly or indirectly into ground water within the meaning of Section 20.6.2.3104 NMAC.
3. The permittee is discharging effluent or leachate from the dairy facility that may move into ground water of the State of New Mexico which has an existing concentration of 10,000 milligrams per liter or less of total dissolved solids within the meaning of Subsection A of 20.6.2.3101 NMAC.
4. The discharge from the dairy facility is not subject to any of the exemptions of Section 20.6.2.3105 NMAC.
5. Data collected from on-site monitoring wells document ground water contamination attributed to one or more sources at this dairy facility. Ground water quality standards for

NO₃-N, TDS, and Cl have been exceeded according to the criteria of Sections 20.6.2.3101 and 20.6.2.3103 NMAC.

6. The Discharge Permit for this facility last issued on July 13, 2000 (before the effective date of the Dairy Rule of December 31, 2011) required the wastewater impoundment system to have the capacity to store the volume of wastewater discharged at the maximum daily discharge volume, for a minimum of 60 days, while preserving two feet of freeboard.
7. The dairy facility was existing as of the effective date of the Dairy Rule (December 31, 2011) and measures the volume of wastewater discharged to a wastewater impoundment(s) using a closed-pipe velocity flow meter installed on the discharge line(s) from all wastewater sources to the wastewater impoundment(s).
8. This Discharge Permit contains requirements associated with the following potential contaminant sources as identified in the application and the administrative record as of the effective date of this Discharge Permit:
 - a) Wastewater Impoundments
 - i. **PWRS-2** - authorized for use by this Discharge Permit.
 - ii. **PWRS-3** - authorized for use by this Discharge Permit.
 - iii. **PWRS-4** - authorized for use by this Discharge Permit.
 - iv. **PWRS-5** - authorized for use by this Discharge Permit.
 - v. **PWRS-1** - not authorized for use by this Discharge Permit; was authorized for use by the last Discharge Permit issued prior to the effective date of the Dairy Rule; subject to closure and post-closure ground water monitoring requirements.
 - vi. **PWRS-E** - not authorized for use by this Discharge Permit; was not authorized for use by the last Discharge Permit (DP-487) issued prior to the effective date of the Dairy Rule; subject to closure requirements.
 - vii. **PWRS-W** - not authorized for use by this Discharge Permit; was not authorized for use by the last Discharge Permit (DP-487) issued prior to the effective date of the Dairy Rule; subject to closure requirements.
 - b) Stormwater Impoundments
 - i. **RCS-Double Aught** - authorized for use by this Discharge Permit.
 - ii. **RCS - 125** - authorized for use by this Discharge Permit.
 - c) Fields within the Land Application Area
 - i. **LAA-BLD** - authorized for use by this Discharge Permit.
 - ii. **LAA-A** - not authorized for use by this Discharge Permit; was authorized for use by the last Discharge Permit (DP-480) issued prior to the effective date of the Dairy Rule; subject to closure and post-closure ground water monitoring requirements. This is a 30-acre flood irrigated field located north of the synthetically lined impoundment system (PWRS-3, PWRS-4 and PWRS-5).
 - iii. **LAA** - not authorized for use by this Discharge Permit; was authorized for use by the last Discharge Permit (DP-480) issued prior to the effective

date of the Dairy Rule; subject to closure and post-closure ground water monitoring requirements. This is a 160-acre flood irrigated field located east of RCS-Double Aught.

III. APPLICABLE RULES

Sections 20.6.2.3000 through 20.6.2.3114 NMAC and Part 20.6.6 NMAC (Dairy Rule) apply to discharges specific to dairy facilities and their operations.

IV. DISCHARGE PERMIT REQUIREMENTS

The permittee is authorized to discharge water contaminants pursuant to this Discharge Permit which contains requirements authorized or specified by the Dairy Rule. The permittee shall comply with the Dairy Rule and this Discharge Permit, which are enforceable by NMED. The permittee is authorized to discharge water contaminants subject to the following requirements:

AUTHORIZATION TO DISCHARGE

1. The permittee is authorized to discharge up to 70,000 gpd of wastewater from the production area. Wastewater flows to a concrete-lined sump and is pumped through a screen solids separator into a manure-lined wastewater impoundment from where it is pumped through a second screen solids separator into a three-cell synthetically lined impoundment system for storage prior to land application. Wastewater is land applied by center pivot irrigation to up to 125 acres of irrigated cropland under cultivation.
2. The permittee is authorized to use the following impoundments for the following purposes in accordance with Subsection B of 20.6.6.20 NMAC.
 - a) **PWRS-2** – authorized to receive wastewater for storage prior to transfer to the synthetically lined wastewater impoundment system. This impoundment exists as of the effective date of this Discharge Permit and is manure-lined. This impoundment is located south of the northern (original Double Aught) production area.
 - b) **PWRS-3** – authorized to receive wastewater for storage prior to land application. This impoundment exists as of the effective date of this Discharge Permit and is synthetically lined with 40-mil HDPE. Wastewater from the PWRS-2 is pumped through the second screen separator into this impoundment, which overflows into PWRS-4. This impoundment is located east of the southern (Baca Linda) production area.
 - c) **PWRS-4** – authorized to receive wastewater for storage prior to land application. This impoundment exists as of the effective date of this Discharge Permit and is synthetically lined with 40-mil HDPE. Wastewater from the PWRS-3 overflows

- into this impoundment, which then overflows into PWRS-5. This impoundment is located east of the southern (Baca Linda) production area and east of PWRS-3.
- d) **PWRS-5** – authorized to receive wastewater for storage prior to land application. This impoundment exists as of the effective date of this Discharge Permit and is synthetically lined with 40-mil HDPE. Wastewater from the PWRS-4 overflows into this impoundment for storage prior to land application. This impoundment is located east of the southern (Baca Linda) production area and north of PWRS-3 and PWRS-4. Wastewater is discharged from this impoundment for land application.
 - e) **RCS-Double Aught** – authorized to collect stormwater for transfer to the wastewater impoundment system. This impoundment exists as of the effective date of this Discharge Permit and is unlined. This impoundment is located south of the northern (original Double Aught) production area and east of PWRS-2.
 - f) **RCS-125** – authorized to collect stormwater for transfer to the wastewater impoundment system. This impoundment exists as of the effective date of this Discharge Permit and is unlined. This impoundment is located east of the southern (Baca Linda) production area and south of PWRS-3 and PWRS-4.
3. The permittee is authorized to apply wastewater and stormwater to all fields within the land application area in accordance with Subsections B, C and I of 20.6.6.21 NMAC. The land application area consists of the following fields for a total land application area of 125 acres.
- a) **LAA-BLD** – consists of 125 acres; application is by center pivot. This field was authorized by the last Discharge Permit (DP-487) prior to the effective date of the Dairy Rule (December 31, 2011) to receive wastewater and/or stormwater and has received wastewater and/or stormwater as of the effective date of this Discharge Permit.

APPLICATION REQUIREMENTS

4. Within 90 days from the effective date of this Discharge Permit (by **DATE**), the permittee shall submit the following information to satisfy the requirements of Sections 20.6.6.10 through 20.6.6.12 NMAC.
- a) Provide a copy of the lease agreement which authorizes the use of the real property for the duration of the term of the requested permit in accordance with Paragraph (2) of Subsection C of 20.6.6.12 NMAC.
 - b) Pursuant to Paragraph (5) of Subsection H of 20.6.6.12 NMAC, provide the settled solids thickness and free-liquid capacity for each existing impoundment determined in accordance with Subsection D of 20.6.6.20 NMAC.
 - c) Pursuant to Subsection I of 20.6.6.12 NMAC, provide a field calibration report for each existing flow meter in accordance with Subsection M of 20.6.6.20 NMAC.
 - d) Pursuant to Subsection J of 20.6.6.12 NMAC, provide the depth-to-most shallow ground water data used to develop the ground water elevation contour map in accordance with Subsections F, I and L of 20.6.6.23 NMAC.

- e) Pursuant to Subsection K of 20.6.6.12 NMAC, identify locations for new and existing monitoring wells to meet the requirements of Subsections A and B of 20.6.6.23 NMAC.
- f) Pursuant to Paragraph (2) of Subsection O of 20.6.6.12 NMAC, provide survey data and capacity calculations for PWRS-1 and PWRS-2 (Double Aught facility) in accordance with Subsection C of 20.6.6.20 NMAC.
- g) Pursuant to Paragraph (2) of Subsection P of 20.6.6.12 NMAC, develop and submit a nutrient management plan (NMP) that satisfies the requirements of Subsection I of 20.6.6.21 NMAC.

ENGINEERING AND SURVEYING REQUIREMENTS

- 5. The permittee shall comply with the requirements of Section 20.6.6.17 NMAC and shall submit to NMED all information or documentation required by the applicable portions of Section 20.6.6.17 NMAC.

OPERATIONAL REQUIREMENTS

- 6. The permittee shall comply with the requirements of Sections 20.6.6.20 and 20.6.6.21 NMAC, and shall submit to NMED all information or documentation required by the applicable portions of Sections 20.6.6.20 and 20.6.6.21 NMAC.
- 7. The permittee shall provide written notice to NMED regarding any changes to the presence of lactating cows and/or the status of wastewater discharges at the facility in accordance with Subsection A of 20.6.6.20 NMAC (summarized in the table below).

Activity	Notification of Estimated Date	Verification of Actual Date
Removal of Lactating Cows	Not required	Within 30 days of removal
Reintroduction of Lactating Cows	Not required	Within 30 days of reintroduction
Cessation of wastewater discharge	Not required	Within 30 days of cessation of discharge
Recommencement of Discharge	Minimum 30 days prior to recommencement	Within 30 days of recommencement

- 8. Within 90 days from the effective date of this Discharge Permit (by **DATE**), the permittee shall submit survey data and calculations for PWRS-1 and PWRS-2 (Double Aught facility) in accordance with Subsection C of 20.6.6.20 NMAC.
- 9. Within 90 days from the effective date of this Discharge Permit (by **DATE**), the permittee shall determine and submit the settled solids thickness and free-liquid capacity

for each existing impoundment determined in accordance with Subsection D of 20.6.6.20 NMAC.

10. The permittee is authorized and required to transfer stormwater collected in the unlined stormwater impoundment(s) to the wastewater impoundment(s) in accordance with Subsection I of 20.6.6.20 NMAC.
11. Within 90 days from the effective date of this Discharge Permit (by **DATE**), the permittee shall submit a field calibration report for each existing flow meter in accordance with Paragraph (3) of Subsection M of 20.6.6.20 NMAC to demonstrate that the existing flow meter(s) meets the requirements of Subsection M of 20.6.6.20 NMAC.
12. The permittee is authorized to use the following existing flow meter(s) provided that the requirements of Subsection M of 20.6.6.20 NMAC have been met.
 - a) **Meter-1** – located at the parlor sump on the transfer line from the parlor sump to the wastewater impoundment system; measures the volume of wastewater discharged from the production area to PWRS-2.
 - b) **Meter-2** – located on the discharge line from PWRS-5 to the land application area; measures the volume of wastewater discharged from PWRS-5 to each field in the land application area (i.e., LAA-BLD).
13. The permittee is authorized, pursuant to Subsection S of 20.6.6.20 NMAC, to land apply manure solids and composted material to the land application area. Manure solids and composted material shall be applied in accordance with the Nutrient Management Plan (NMP) required by Subsection I of 20.6.6.21 NMAC.
14. The permittee is authorized to blend wastewater with fresh irrigation water for land application using any of the methods provided in Subsection D of 20.6.6.21 NMAC. Fresh water may be added to a wastewater impoundment prior to land application in accordance with Subsection D of 20.6.6.21 NMAC.
15. Within 90 days from the effective date of this Discharge Permit (by **DATE**), the permittee shall submit an NMP developed and signed in accordance with Subsection I of 20.6.6.21 NMAC.
16. The permittee shall remove crops from the following fields within the land application area using the following methods in accordance with Subsection I and J of 20.6.6.21 NMAC. Crops may be grazed prior to and between mechanical harvests, however, nitrogen removal credit shall not be taken for grazing activities unless a grazing plan is developed and submitted in accordance with Subsections I and J of 20.6.6.21 NMAC.
 - a) **LAA-BLD**– crops shall be harvested mechanically.

The permittee shall submit an application for Discharge Permit Modification to NMED for any proposed changes to the method(s) of crop removal for any field within the land application area as required by Subsection K of 20.6.6.21 NMAC.

17. The permittee shall complete the following items and submit documentation to NMED as summarized in the following table:

Item No.	Action Required and Submittal Due to NMED	Due Date	Citation
A.	<u>Scaled Map of Dairy Facility – Updates:</u> Following completion of any additions or changes to the dairy facility which affect the items listed in Subsection U of 20.6.6.20 NMAC, the permittee shall update and resubmit the facility map.	Within 90 days of any addition or change.	20.6.6.20.V NMAC
B.	<u>Nutrient Management Plan:</u> Develop and submit annual updates to the NMP.	Annually: May 1	20.6.6.21.I NMAC
C.	<u>Backflow Prevention:</u> i) Complete installation of backflow prevention methods or devices. ii) Submit confirmation of installation.	[90 days of effective date] [180 days of effective date]	20.6.6.21.M NMAC
D.	<u>Backflow Prevention by Reduced Pressure Principle Backflow Prevention Assembly – Inspection and Maintenance:</u> Submit copies of inspection and maintenance records and test results for each RP device, should the device be used to satisfy the requirements of Subsection M of 20.6.6.21 NMAC.	Annually: May 1	20.6.6.21.N NMAC

GROUND WATER MONITORING REQUIREMENTS

18. The permittee shall comply with the requirements of Section 20.6.6.23 NMAC and shall submit to NMED all information or documentation required by the applicable portions of Section 20.6.6.23 NMAC.
19. Monitoring wells shall be constructed and completed in accordance with Subsection D of 20.6.6.23 NMAC.
20. Monitoring wells shall be permanently identified in accordance with Subsection C of 20.6.6.23 NMAC.
21. In accordance with Paragraph (6) of Subsection A of 20.6.6.23 NMAC, the permittee is authorized to use the following monitoring well(s) in existence as of the effective date of this Discharge Permit and prior to the effective date of the Dairy Rule (December 31, 2011).

- a) **487-1A**, hydrologically downgradient of PWRS-3 and PWRS-5; located south of the southwest corner of PWRS-3.
 - b) **487-4**, hydrologically downgradient of LAA-A; located south of the western portion of LAA-A.
22. Within 90 days from the effective date of this Discharge Permit (by **DATE**), the permittee shall identify locations for the new monitoring wells (listed in the table below) in accordance with Subsections A and B of 20.6.6.23 NMAC.
23. The permittee shall complete the following items and submit documentation to NMED as summarized in the following table:

Item No.	Action Required and Submittal Due to NMED	Due Date	Citation
A.	<p><u>Ground Water Monitoring – Existing Wastewater Impoundments:</u></p> <p>Install the following monitoring wells within 75 feet hydrologically downgradient of the top inside edge of each <u>existing</u> wastewater impoundment:</p> <ul style="list-style-type: none"> i) 480-2R, hydrologically downgradient of PWRS-2. Replaces the dry monitoring well 480-2. ii) 480-6, hydrologically downgradient of PWRS-1. iii) 487-7, hydrologically downgradient of PWRS-4. 	[120 days of effective date]	20.6.6.23.A(1) NMAC
B.	<p><u>Ground Water Monitoring – Existing Stormwater Impoundments:</u></p> <p>Install the following monitoring wells within 75 feet hydrologically downgradient of the top inside edge of each <u>existing</u> stormwater impoundment:</p> <ul style="list-style-type: none"> i) 480-3R, hydrologically downgradient of RCS-Double Aught. Replaces the dry monitoring well 480-3. ii) 487-3R, hydrologically downgradient of RCS-125. Replaces the improperly located monitoring well 487-3A. 	[120 days of effective date]	20.6.6.23.A(3) NMAC
C.	<p><u>Ground Water Monitoring – Existing Land Application Area:</u></p> <p>Install the following monitoring wells within 50 feet hydrologically downgradient of the downgradient boundary of <u>existing</u> fields within the land application area:</p> <ul style="list-style-type: none"> i) 480-4R, hydrologically downgradient of LAA. Replaces the dry monitoring well 480-4. ii) 487-5R, hydrologically downgradient of LAA-BLD. Replaces the dry monitoring well 487-5. 	[120 days of effective date]	20.6.6.23.A(4) (a) and (b) NMAC
D.	<p><u>Ground Water Monitoring – Upgradient:</u></p> <p>Install the following monitoring wells hydrologically upgradient of all contamination sources at the dairy facility.</p> <ul style="list-style-type: none"> i) 480-1R, hydrologically upgradient of all contamination sources associated with the original Double Aught 	[120 days of effective date]	20.6.6.23.A(5) NMAC

Item No.	Action Required and Submittal Due to NMED	Due Date	Citation
	Dairy. Replaces the dry monitoring well 480-1. ii) 487-8 , hydrologically upgradient of all contamination sources associated with the original Baca Linda Dairy.		
E.	<p><u>Ground Water Sampling and Reporting – Routine:</u></p> Collect and analyze ground water samples quarterly from all monitoring wells identified in this Discharge Permit. Sampling shall be performed and results submitted in accordance with Subsection F of 20.6.6.23 NMAC.	<p>Quarterly</p>	<p>20.6.6.23.G NMAC</p>
F.	<p><u>Ground Water Sampling – New Monitoring Wells:</u></p> Collect ground water samples from monitoring wells required to be installed <i>within 120 days of the effective date of the Discharge Permit</i> . Sampling shall be performed in accordance with Subsection F of 20.6.6.23 NMAC using the monitoring wells required to be installed in the following locations: i) 480-2R , hydrologically downgradient of PWRS-2. ii) 480-6 , hydrologically downgradient of PWRS-1. iii) 487-7 , hydrologically downgradient of PWRS-4. iv) 480-3R , hydrologically downgradient of RCS-Double Aught. v) 487-3R , hydrologically downgradient of RCS-125. vi) 480-4R , hydrologically downgradient of LAA. vii) 487-5R , hydrologically downgradient of LAA-BLD. viii) 480-1R , hydrologically upgradient of all contamination sources associated with the original Double Aught Dairy. ix) 487-8 , hydrologically upgradient of all contamination sources associated with the original Baca Linda Dairy.	<p>[150 days of effective date]</p>	<p>20.6.6.23.H NMAC</p>
G.	<p><u>Monitoring Well Survey and Ground Water Flow Determination:</u></p> Survey monitoring wells required to be installed <i>within 120 days of the effective date of the Discharge Permit</i> to a USGS benchmark.	<p>[150 days of effective date]</p>	<p>20.6.6.23.I NMAC</p>
H.	<p><u>Monitoring Well Completion Report:</u></p> Submit a monitoring well completion report for monitoring wells required to be installed <i>within 120 days of the effective date of the Discharge Permit</i> . The report shall include information from all monitoring wells.	<p>[180 days of effective date]</p>	<p>20.6.6.23.J NMAC</p>
I.	<p><u>Ground Water Elevation Contour Maps:</u></p> Develop and submit ground water elevation contour maps on a quarterly basis using data collected from all monitoring wells used for ground water monitoring at the dairy facility.	<p>Quarterly</p>	<p>20.6.6.23.L NMAC</p>

MONITORING REQUIREMENTS

- 24. The permittee shall comply with the requirements of Sections 20.6.6.24 and 20.6.6.25 NMAC, and shall submit to NMED all information or documentation required by the applicable portions of Sections 20.6.6.24 and 20.6.6.25 NMAC.
- 25. The permittee shall submit monitoring reports to NMED on a quarterly schedule that contain monitoring data and information collected pursuant to the Dairy Rule and submitted in accordance with Subsection A of 20.6.6.24 NMAC.

Quarterly monitoring reports shall be submitted according to the following schedule:

- January 1 through March 31 (first quarter) – report due by **May 1**
- April 1 through June 30 (second quarter) – report due by **August 1**
- July 1 through September 30 (third quarter) – report due by **November 1**
- October 1 through December 31 (fourth quarter) – report due by **February 1**

- 26. The permittee shall perform the following monitoring and submit to NMED the required documentation in monitoring reports as summarized in the following table:

Item No.	Action Required and Submittal Due to NMED	Due Date	Citation
A.	<u>Wastewater Volume Measurement and Reporting:</u> Using a flow meter(s) installed on the discharge line(s), measure the volume of all wastewater discharged to the impoundment(s) authorized to contain wastewater. Submit the information.	Quarterly	20.6.6.24.C NMAC
B.	<u>Stormwater Sampling and Reporting:</u> Collect and analyze stormwater samples on a quarterly basis from each stormwater impoundment and submit results.	Quarterly	20.6.6.24.D NMAC
C.	<u>Flow Meter Field Calibration:</u> Perform flow meter field calibrations annually and submit a flow meter field calibration report.	Annually: May 1	20.6.6.24.E NMAC
D.	<u>Volume of Wastewater and Wastewater/Stormwater Land Applied – Measurement and Reporting:</u> Measure the volume of all wastewater discharges to each field within the land application area using a flow meter(s) and submit the information.	Quarterly	20.6.6.25.A NMAC
E.	<u>Wastewater to be Land Applied – Sampling and Reporting:</u> The permittee shall collect a representative wastewater sample (consisting of eight subsamples) from each wastewater or combination wastewater/stormwater impoundment. Analyze each representative wastewater sample on a quarterly basis and submit results.	Quarterly	20.6.6.25.C NMAC

Item No.	Action Required and Submittal Due to NMED	Due Date	Citation
F.	<u>Manure Solids – Nitrogen Content:</u> Should a permittee choose to use actual nitrogen content values of on-site manure solids for the purpose of applying to the land application area, the permittee shall collect and analyze samples annually, and submit results.	Quarterly	20.6.6.25.D NMAC
G.	<u>Irrigation Water – Sampling, Volume Applied and Reporting:</u> Collect and analyze fresh irrigation water samples on an annual basis from each irrigation well associated with the land application area. Estimate the annual volume of irrigation water applied to each field from each well. Submit estimated volumes and analytical results.	Annually: May 1	20.6.6.25.E NMAC
H.	<u>Fertilizer Application Reporting:</u> Maintain and submit a log of all additional fertilizer applied to each field within the land application area.	Quarterly	20.6.6.25.F NMAC
I.	<u>Land Application Data Sheets:</u> Complete and submit land application data sheets (LADS) for each field within the land application area.	Quarterly	20.6.6.25.G NMAC
J.	<u>Crop Yield Documentation:</u> Submit crop yield documentation and plant and harvest dates of each crop grown.	Quarterly	20.6.6.25.H NMAC
K.	<u>Nitrogen Concentration of Harvested Crop:</u> Determine the percent total nitrogen and dry matter of each harvested crop and submit results.	Quarterly	20.6.6.25.I NMAC
L.	<u>Nitrogen Removal Summary of Harvested Crop:</u> Develop and submit a nitrogen removal summary for each crop grown on each field within the land application area.	Quarterly	20.6.6.25.J NMAC
M.	<u>Soil Sampling – Initial Event in a Discharge Permit Term:</u> Collect and analyze <u>initial</u> soil samples from each field in the land application area for the first soil sampling event during the first year following the effective date of this Discharge Permit. Submit the results.	May 1, 2014	20.6.6.25.K NMAC
N.	<u>Soil Sampling – Routine:</u> Collect and analyze <u>routine</u> soil samples annually from each field in the land application area beginning the year following the initial sampling event. Submit the results.	Annually: May 1	20.6.6.25.L NMAC

CONTINGENCY REQUIREMENTS

27. The permittee shall comply with the requirements of Section 20.6.6.27 NMAC and shall submit to NMED all information or documentation required by the applicable portions of Section 20.6.6.27 NMAC.

CLOSURE REQUIREMENTS

28. The permittee shall comply with the requirements of Section 20.6.6.30 NMAC and shall submit to NMED all information or documentation required by the applicable portions of Section 20.6.6.30 NMAC.

29. The following wells previously used for monitoring under the previous Discharge Permit and the facility's Abatement Plan, shall only be abandoned by the permittee upon written notification by certified mail from NMED. Upon such notification, the wells shall be abandoned in accordance with Subsection C of 20.6.6.30 NMAC. The permittee is not required to perform routine ground water sampling from these wells for this Discharge Permit, but may be required to do so pursuant to the Abatement Plan. Additionally, NMED may collect ground water samples from the well(s) pursuant to Subsection D of 20.6.2.3107 NMAC.

a) **487-6**, located northwest of the old Baca Linda Dairy production area.

The well abandonment report shall be submitted to NMED within 60 days of completion of well plugging activities.

30. Within 120 days of the effective date of the Discharge Permit (**by DATE**), the permittee shall abandon the following well(s) previously used for monitoring in accordance with Subsection C of 20.6.6.30 NMAC.

a) **480-1**, located northwest of the Double Aught Dairy production area. Reported as dry.

b) **480-2**, located south of PWRS-2. Reported as dry.

c) **480-3**, located southwest of RCS-Double Aught. Reported as dry.

d) **480-4**, located east of RCS-Double Aught. Reported as dry.

e) **480-1**, located east of LAA-A. Reported as dry.

f) **487-5**, located east-southeast of LAA-BLD. Reported as dry.

The well abandonment report shall be submitted to NMED within 60 days of completion of well plugging activities.

31. Within two years of the effective date of the Discharge Permit (**by DATE**), the permittee shall complete closure of the following impoundment(s) in accordance with Paragraph (2) of Subsection A of 20.6.6.30 NMAC.

a) **PWRS-1** – located south of the Double Aught Dairy production area and west of PWRS-2.

- b) **PRWS-W** – located east of the old Baca Linda production area and west of the synthetically lined impoundment system.
- c) **PRWS-E** – located east of the old Baca Linda production area and north of the synthetically lined impoundment system.

GENERAL REQUIREMENTS

- 32. The permittee shall operate in a manner such that standards and requirements of Sections 20.6.2.3101 and 20.6.2.3103 NMAC are not violated.
- 33. The permittee shall retain required records for a minimum period of 10 years from the date of sample collection, measurement, report or application in accordance with Section 20.6.6.33 NMAC.
- 34. Transfer of a Discharge Permit for a dairy facility shall be completed in accordance with Section 20.6.6.34 NMAC.
- 35. To renew this Discharge Permit, the permittee shall submit an application for renewal, renewal and modification, or renewal for closure at least one year prior to the expiration date of the Discharge Permit in accordance with Section 20.6.6.10 NMAC.
- 36. In accordance with Subsection A of 20.6.6.9 NMAC, the permittee shall remit a permit fee payment equal to one-tenth of the applicable permit fee from Table 1 of Section 20.6.2.3114 NMAC on the first occurrence of August 1 after the effective date of the Discharge Permit, and annually thereafter until expiration or termination of the Discharge Permit.

V. ADDITIONAL CONDITIONS

In addition to the requirements of 20.6.6 NMAC, the permittee shall comply with the following conditions as authorized by Subsection H of 20.6.6.10 NMAC pursuant to Section 74-6-5 WQA. A hearing may be requested on additional conditions in accordance with Section 20.6.6.15 NMAC.

- 1. The permittee shall continue to collect and analyze ground water samples quarterly from the following wells previously used for monitoring. Sampling shall be performed and results submitted in accordance with Subsection F of 20.6.6.23 NMAC.
 - a) **487-2A**, located just east of PWRS-5 and northwest of LAA-BLD in an area previously use by the facility for land application of wastewater by flood irrigation. Analytical results from this monitoring well indicate exceedance of the ground water quality standard for NO₃-N, TDS and Cl.
 - b) **487-3A**, located just east of RCS-125 and west of LAA-BLD in an area previously use by the facility for land application of wastewater by flood

irrigation. Analytical results from this monitoring well indicate exceedance of the ground water quality standard for NO₃-N, TDS and Cl.

2. Ground water monitoring shall continue in monitoring wells 487-2A and 487-3A subject to the provisions of Subsection E of 20.6.6.30 NMAC.

VI. PERMIT ISSUANCE

Pursuant to WQA 74-6-5(I), the term of this Discharge Permit shall be for the fixed term of five years from the effective date of the Discharge Permit.

Issued by: New Mexico Environment Department

Effective Date: **DATE**

Expiration Date: **DATE**

JERRY SCHOEPPNER
Chief, Ground Water Quality Bureau
New Mexico Environment Department