GROUND WATER DISCHARGE PERMIT - RENEWAL FOR CLOSURE
EXISTING DAIRY FACILITY with a LAND APPLICATION AREA
North Portales Dairy, DP-299

I. INTRODUCTION AND SUMMARY

The New Mexico Environment Department (NMED) issues this Discharge Permit Renewal for Closure (Discharge Permit), DP-299, to DDT Pens, LLC, (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 to North Portales Dairy (dairy facility; formerly known as Blackwater Draw Dairy, Mirage Dairy and Sandhill Dairy) is to control water contaminants associated with the dairy facility and permanent closure activities, and provide oversight of post-closure monitoring. This Discharge Permit is issued 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 dairy facility permanently ceased wastewater discharge in 2009. The discharge contained water contaminants or toxic pollutants which may have been elevated above the standards of Section 20.6.2.3103 NMAC. The activities which produced the discharge, the location of the discharge, and the former quantity, quality and flow characteristics of the discharge are briefly described as follows:

The last Discharge Permit issued before the effective date of the Dairy Rule authorized a maximum daily discharge volume of 25,000 gallons per day (gpd) of wastewater from the production area. Wastewater flowed to a concrete sump, through a solids separator, to an unlined wastewater impoundment for storage prior to land application. The Discharge Permit required the installation of a synthetically lined combination wastewater and stormwater impoundment and closure of the unlined wastewater impoundment. Wastewater was land applied by center pivot and lateral sprinkler to two fields totaling up to 100 acres of irrigated cropland under cultivation.

The dairy facility is located at 1476-A Baseline Road, approximately six miles northeast of Portales, in Sections 32 and 33, Township 1N, Range 35E, Roosevelt County. Ground water most likely to be affected is at a depth of approximately 115 feet and had a pre-discharge total dissolved solids concentration of approximately 325 milligrams per liter.

The original Discharge Permit was issued on November 18, 1983 and subsequently renewed on November 10, 1988, renewed and modified on September 26, 1995, renewed on November 18, 2002 and amended on April 17, 2003. The application consists of the materials submitted by EnviroCompliance Services on behalf of the permittee dated January 17, 2008, and materials contained in the administrative record associated with issuance of this Discharge Permit. Permanent closure of the dairy facility 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. This facility meets the definition of "dairy facility". Effluent or leachate discharged from this facility is subject to the Dairy Rule (20.6.6 NMAC). This dairy facility meets the definition of "existing dairy facility".

2. Effluent or leachate discharged from the dairy facility may move directly or indirectly into ground water within the meaning of Section 20.6.2.3104 NMAC.

3. Effluent or leachate discharged from the dairy facility 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. Effluent or leachate discharged from the dairy facility are 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 NO_3-N and TDS have historically been exceeded according to the criteria of Sections 20.6.2.3101 and 20.6.2.3103 NMAC.

6. Prior to permanently ceasing wastewater discharge, the dairy facility held a Discharge Permit that authorized the permittee to discharge up to 25,000 gpd of wastewater from the production area. Wastewater flowed to a concrete sump, through a solids separator, to an unlined wastewater impoundment for storage prior to land application. The Discharge Permit required the installation of a synthetically lined combination wastewater and stormwater impoundment and closure of the unlined wastewater impoundment. Wastewater was land applied by center pivot and lateral sprinkler to two fields totaling up to 100 acres of irrigated cropland under cultivation.

7. This Discharge Permit contains requirements associated with the following potential contaminant sources as identified in the last Discharge Permit issued prior to the effective date of the Dairy Rule (December 31, 2011), the application and/or the administrative record as of the effective date of this Discharge Permit:
   a) Wastewater Combination Wastewater/Stormwater Impoundments
      i. **PWRS/RCS**
   b) Wastewater Impoundments
      i. **PWRS-Southeast (former closed)**
   c) Fields within the Land Application Area
      i. **LAA-A**
      ii. **LAA-B**

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 shall perform closure activities and post-closure monitoring 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 shall perform closure activities and post-closure monitoring subject to the following requirements:

DAIRY RULE TRANSITION REQUIREMENTS

1. The permittee shall have 90 days from the effective date of this Discharge Permit (**by May 23, 2013**) to submit all the necessary information to comply with Sections 20.6.6.10 through 20.6.6.13 NMAC, in accordance with Subsection D of 20.6.6.35 NMAC. The permittee shall submit the necessary information by completing the application form for Renewal for Closure located at the following address:
   - http://www.nmenv.state.nm.us/gwb/NMED-GWQB-dairies.htm

The following sections of the application form for renewal for closure shall be completed, and the form shall be signed by the permittee and notarized prior to submission.

a) Introduction – *Applicant's Signature and Notary Certification only*
b) Part I.A
c) Part II.A
d) Part II.B.2
e) Part II.B.3(a) and (b)
f) Part II.C
g) Part IV.A
h) Part IV.B
i) Part IV.C

CLOSURE REQUIREMENTS

2. 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.

3. The permittee used and was previously authorized to use the following impoundments which require closure and/or post-closure monitoring in accordance with Subsections A and B of 20.6.6.30 NMAC.
   a) **PWRS/RCS** – received wastewater and stormwater for storage prior to land application, as authorized by the last Discharge Permit issued on November 18, 2002. This impoundment exists unclosed as of the effective date of this Discharge Permit and is synthetically lined.
   b) **PWRS-Southeast (former closed)** – received wastewater for storage prior to land application, as authorized by the last Discharge Permit issued on November 18, 2002. This impoundment was earthen-lined and has been closed as of the effective date of this Discharge Permit.

4. The permittee applied and was previously authorized to apply wastewater and/or stormwater to the land application area which consisted of the following fields:
   a) **LAA-A** – consists of 60 acres; applied by center pivot sprinkler. This field was authorized by the last Discharge permit prior to the effective date of the Dairy Rule (December 31, 2011) to receive wastewater and stormwater and has received wastewater and/or stormwater as of the effective date of this Discharge Permit.
   b) **LAA-B** – consists of 40 acres; applied by lateral sprinkler. This field was authorized by the last Discharge permit prior to the effective date of the Dairy Rule (December 31, 2011) to receive wastewater and stormwater and has received wastewater and/or stormwater as of the effective date of this Discharge Permit.

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

Item No.	Action Required and Submittal Due to NMED	Due Date	Citation
A.	**Empty Wastewater from Wastewater/Stormwater Impoundment:** i) Remove wastewater from the combination wastewater/stormwater impoundment and apply to the land application area identified in the last Discharge Permit issued prior to the effective date of the Dairy Rule (December 31, 2011).	**August 22, 2013**	20.6.6.30.A(1) NMAC
B.	**Empty Stormwater from Wastewater/Stormwater Impoundments:** i) Remove stormwater from the combination wastewater/stormwater impoundment and apply to the land application area identified in the last Discharge Permit issued prior to the effective date of the Dairy Rule (December 31, 2011).	**Within one year of removing all livestock from the dairy facility.**	20.6.6.30.A(1) NMAC
C.	**Manure Solids and Compost Removal:** i) Remove manure solids and compost from surface areas at the dairy facility, and land apply the manure solids and composted material to the land application area identified in the last Discharge Permit issued prior to the effective date of the Dairy Rule (December 31, 2011).	**Within one year of removing all livestock from the dairy facility.**	20.6.6.30.A(1) NMAC
D.	**Solids Removal from Stormwater and Combination Wastewater/Stormwater Impoundments:** i) Remove manure solids from the combination wastewater/stormwater impoundment, and apply the manure solids to the land application area identified in the last Discharge Permit issued prior to the effective date of the Dairy Rule (December 31, 2011).	**Within two years of removing all livestock from the dairy facility.**	20.6.6.30.A(1) NMAC
E.	**Removal/Perforation of Liners and Re-grade Stormwater and Combination Stormwater/Wastewater Impoundments:** Perforate or remove combination stormwater/wastewater impoundment liner and re-grade the impoundment with clean fill to blend with surface topography to prevent ponding.	**Within two years of removing all livestock from the facility.**	20.6.6.30.A(1) NMAC
F.	**Monitoring Well Plugging and Abandonment:** Abandon the following well(s) previously used for monitoring in accordance with Subsection C of 20.6.6.30 NMAC. The permittee is not required to perform routine ground water sampling from the following well(s); however, NMED may collect ground water samples from the well(s) pursuant to Subsection D of 20.6.2.3107 NMAC. i) **MW-4** – located at north of the PWRS/RCS.	**Only upon written notification by certified mail from NMED**	20.6.6.30.C NMAC

Item No.	Action Required and Submittal Due to NMED	Due Date	Citation
	The well abandonment report shall be submitted to NMED within 60 days of completion of well plugging activities.		

MONITORING REQUIREMENTS

6. The permittee shall comply with the requirements of Section 20.6.6.24 NMAC and shall submit to NMED all information or documentation required by the applicable portions of Section 20.6.6.24 NMAC.

7. 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**

GROUND WATER MONITORING REQUIREMENTS

8. The permittee shall comply with the requirements of Sections 20.6.6.23 and 20.6.6.30 NMAC, and shall submit to NMED all information or documentation required by the applicable portions of Sections 20.6.6.23 and 20.6.6.30 NMAC.

9. Monitoring wells shall be constructed and completed in accordance with Subsection D of 20.6.6.23 NMAC.

10. Monitoring wells shall be permanently identified in accordance with Subsection C of 20.6.6.23 NMAC.

11. Pursuant to Subsection D of 20.6.6.35 NMAC, the permittee shall have 90 days from the effective date of this Discharge Permit **(by May 23, 2013)** to submit the information required by Paragraph (6) of Subsection A of 20.6.6.23 NMAC to verify that monitoring wells in existence as of the effective date of this Discharge Permit and prior to the effective date of the Dairy Rule (December 31, 2011) are appropriate for continued use for ground water monitoring.

    The permittee is authorized to use the following monitoring well(s) provided that the requirements of Paragraph (6) of Subsection A of 20.6.6.23 NMAC are met.
    a) **MW-3**, hydrologically downgradient of PWRS/RCS; east of PWRS/RCS.

12. 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.	**Ground Water Monitoring – Wastewater Impoundments:** Install the following monitoring wells within 75 feet hydrologically downgradient of the top inside edge of each wastewater impoundment: i) **MW-5A**, hydrologically downgradient of PWRS-Southeast (former closed).	**June 22, 2013**	20.6.6.23.A(1) NMAC
B.	**Ground Water Monitoring – Existing Land Application Area:** Install the following monitoring wells within 50 feet hydrologically downgradient of the downgradient boundary of fields within the land application area: i) **MW-7**, hydrologically downgradient of LAA-A. ii) **MW-8**, hydrologically downgradient of LAA-B.	**June 22, 2013**	20.6.6.23.A(4)(b)
C.	**Ground Water Monitoring – Upgradient:** Install a monitoring well, **MW-6**, hydrologically upgradient of all contamination sources at the dairy facility.	**June 22, 2013**	20.6.6.23.A(5) NMAC
D.	**Ground Water Sampling and Reporting – Routine:** 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.	**Quarterly**	20.6.6.23.G NMAC
E.	**Ground Water Sampling – New Monitoring Wells:** Collect ground water samples in accordance with Subsection F of 20.6.6.23 NMAC from the following newly installed monitoring wells required to be installed in the following locations: i) **MW-5A**, hydrologically downgradient of PWRS-Southeast (former closed). ii) **MW-6**, hydrologically upgradient of all contamination sources at the dairy facility. iii) **MW-7**, hydrologically downgradient of LAA-A. iv) **MW-8**, hydrologically downgradient of LAA-B.	**July 22, 2013**	20.6.6.23.H NMAC
F.	**Monitoring Well Survey and Ground Water Flow Determination:** Survey monitoring wells to a USGS benchmark.	**July 22, 2013**	20.6.6.23.I NMAC
G.	**Monitoring Well Completion Report:** Submit a monitoring well completion report which includes information from all monitoring wells.	**August 21, 2013**	20.6.6.23.J NMAC

Item No.	Action Required and Submittal Due to NMED	Due Date	Citation
H.	**Ground Water Elevation Contour Maps:** 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.	**Quarterly**	20.6.6.23.L NMAC

13. Following completion of the requirements of Subsection A of 20.6.6.30 NMAC and NMED's confirmation of completion, pursuant to Subsection B of 20.6.6.30 NMAC, ground water monitoring shall continue in accordance with Section 20.6.6.23 NMAC until a minimum of eight consecutive ground water sampling events confirm that the standards of Section 20.6.2.3103 NMAC are not exceeded and the total nitrogen concentration in ground water is less than or equal to 10 milligrams per liter. If monitoring results show that one or more of the standards of Section 20.6.2.3103 NMAC is exceeded or the total nitrogen concentration in ground water is greater than 10 milligrams per liter, the permittee shall implement contingency requirements in accordance with Sections 20.6.6.27 NMAC. Upon notification from NMED that post-closure ground water monitoring may cease, the permittee shall abandon all monitoring wells and submit a report to NMED in accordance with Subsection C of 20.6.6.30 NMAC.

CONTINGENCY REQUIREMENTS

14. 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.

GENERAL REQUIREMENTS

15. 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.

16. 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.

17. Transfer of a Discharge Permit for a dairy facility shall be completed in accordance with Section 20.6.6.34 NMAC.

18. The permittee is required to renew this Discharge Permit for Closure unless the permittee receives notice from NMED of termination of the Discharge Permit. The permittee shall submit an application for renewal for closure at least one year prior to the expiration date of this Discharge Permit in accordance with Section 20.6.6.10 NMAC.

19. 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) **MW-1**, hydrologically downgradient of PWRS-North (former closed). PWRS-North received wastewater as authorized by the Discharge Permit issued on September 26, 1995. This impoundment was earthen-lined and has been closed as of the effective date of this Discharge Permit.
   b) **MW-5**, west of PWRS-Southeast (former closed). PWRS-Southeast received wastewater for storage prior to land application, as authorized by the last Discharge Permit issued on November 18, 2002. This impoundment was earthen-lined and has been closed as of the effective date of this Discharge Permit.

2. Discontinuance of ground water monitoring in monitoring wells MW-1 and MW-5 for former impoundments PWRS-North and PWRS-Southeast (respectively) is subject to the provisions of Subsection D 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: **February 22, 2013**
Expiration Date: **February 22, 2018**

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