



**NEW MEXICO  
ENVIRONMENT DEPARTMENT**



SUSANA MARTINEZ  
Governor

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RYAN FLYNN  
Cabinet Secretary

**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

July 14, 2014

Gerben Hettinga, Owner  
GH Dairy Deming  
14651 S. Grove Ave.  
Ontario, CA 91672

<b>U.S. Postal Service</b>	
<b>CERTIFIED MAIL</b>	
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Restricted Delivery Fee (Endorsement Required)	
Gerben Hettinga, O GH Dairy Deming 14651 S. Grove Av Ontario, CA 91672	
PS Form 3800, August 2006	

7008 1630 0000 4178 6053

**RE: Discharge Permit Renewal and Modification, DP-1331, GH Dairy Deming**

Dear Mr. Hettinga:

On June 28, 2012, the New Mexico Environment Department (NMED) proposed renewal of the Ground Water Discharge Permit for GH Dairy Deming, DP-1331, pursuant to Subsection H of 20.6.2.3108 NMAC. A draft Discharge Permit Renewal and Modification was sent to you at that time. In response, NMED received comments from the facility on July 30, 2012. All of the comments were considered by NMED and some were incorporated into the enclosed Discharge Permit. Comments requesting permit revisions not in accordance with the requirements of 20.6.6 NMAC are not addressed by this Discharge Permit. The permittee may file a petition with the New Mexico Water Quality Control Commission (WQCC) requesting a variance from site specific requirements of 20.6.6 NMAC.

NMED issues the enclosed Discharge Permit Renewal and Modification, DP-1331, to Gerben Hettinga (permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the WQCC Regulations, 20.6.2 and 20.6.6 NMAC.

The Discharge Permit contains requirements that shall be complied with by the permittee and are enforceable by NMED pursuant to Sections 20.6.2.3104 and 20.6.6.8 NMAC, WQA, and NMSA 1978 §74-6-5 and §74-6-10. The discharge shall be managed in accordance with all applicable requirements of the Dairy Rule and this Discharge Permit. Issuance of this Discharge Permit does not relieve the permittee of the responsibility to comply with the WQA, WQCC

Gerben Hettinga, DP-1331

July 14, 2014

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Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

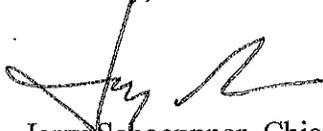
You will be invoiced under separate cover for \$345.00 (one-tenth of the applicable permit fee). This fee is due by August 1, 2014, and annually thereafter until expiration or termination of the Discharge Permit. If you wish to avoid annual payments, you may pay the remaining permit fee balance of \$1,725.00 in full upon receipt of the invoice mentioned above.

Pursuant to Subsection I of NMSA 1978 § 74-6-5, the term of this Discharge Permit shall be for the fixed term of five years. The term of this Discharge Permit will end on July 14, 2019.

**Pursuant to Subsection A of 20.6.6.10 NMAC, you are required to submit an application for renewal or renewal/modification to NMED one year prior to the end of the Discharge Permit term.**

If you have any questions, please contact Sara Arthur at (505) 827-9669 or Gary Westerfield, Agricultural Waste Team Leader, at (505) 827-2713. Thank you for your cooperation during this Discharge Permit review.

Sincerely,



Jerry Schoeppner, Chief  
Ground Water Quality Bureau

JS:SA

Encs: Discharge Permit Renewal and Modification, DP-1331

cc: Gary Westerfield, Agricultural Waste Team Leader, NMED-GWQB (permit)  
Michael Kesler, Acting District Manager, NMED District III (permit – electronic copy)  
NMED Deming Field Office (permit)  
John Romero, Office of the State Engineer (permit – electronic copy)  
Mike Bomer, GH Dairy Deming, 2685 Lewis Flats Road SE, Deming, NM 88030  
(permit)  
Elke Naumburg, Glorieta Geoscience, Inc., P.O. Box 5727, Santa Fe, NM 87502 (permit)

**GROUND WATER DISCHARGE PERMIT - RENEWAL AND MODIFICATION  
EXISTING DAIRY FACILITY with a LAND APPLICATION AREA  
GH Dairy Deming, DP-1331**

**I. INTRODUCTION AND SUMMARY**

The New Mexico Environment Department (NMED) issues this Discharge Permit Renewal and Modification (Discharge Permit), DP-1331, to Gerben Hettinga (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 GH Dairy Deming (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 60,000 gallons per day (gpd) of wastewater may be discharged from the production area. Wastewater flows to a concrete sump, is pumped through a screen solids separator and then drains to one of two passive solids separators. Wastewater from the separators flows to a synthetically lined wastewater impoundment for storage prior to land application by flood and center pivot irrigation on up to 233 acres of irrigated cropland under cultivation. The modification consists of an increase in the acreage of the land application area from 160 acres (incorrectly stated as 144 acres in the original Discharge Permit) to 233 acres. 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 2685 Lewis Flats Road, approximately 11 miles East of Deming, in Sections 4 and 5, Township 24 South, Range 7 West, Luna County. Ground water most likely to be affected is at a depth of approximately 89 feet and had a pre-discharge total dissolved solids concentration of approximately 596 milligrams per liter.

The original Discharge Permit was issued on June 8, 2001. The application consists of the materials submitted by Glorieta Geoscience, Inc. on behalf of the former owner, Jon Van Ryn, dated September 26, 2006 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 <sub>3</sub> -N	nitrate-nitrogen

Abbreviation	Explanation	Abbreviation	Explanation
gpd	gallons per day	S	Sulfur
LADS	land application data sheet(s)	SO <sub>4</sub>	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. The Discharge Permit for this facility last issued on June 8, 2001 (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.
6. 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 totalizing flow meter installed on the discharge line(s) from all wastewater sources to the wastewater impoundment(s).

7. 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. **Wastewater Impoundment** - authorized for use by this Discharge Permit.
  - b) Stormwater Impoundments
    - i. **Stormwater Impoundment 1** - authorized for use by this Discharge Permit.
    - ii. **Stormwater Impoundment 2** - authorized for use by this Discharge Permit.
  - c) Fields within the Land Application Area
    - i. **Field 1** - authorized for use by this Discharge Permit.
    - ii. **Field 2** - authorized for use by this Discharge Permit.
    - iii. **Field 3** - authorized for use by this Discharge Permit.
    - iv. **Field 4** - authorized for use by this Discharge Permit.
    - v. **Field 6** - authorized for use by this Discharge Permit.
    - vi. **Field 7** - authorized for use by this Discharge Permit.
    - vii. **Field 8** – not authorized for use by this Discharge Permit; was not authorized by the last Discharge Permit issued prior to the effective date of the Dairy Rule (December 31, 2011) to receive wastewater and/or stormwater but has received wastewater and/or stormwater as of the effective date of this Discharge Permit; subject to closure and post-closure monitoring.
    - viii. **Field 9** – not authorized for use by this Discharge Permit; was not authorized by the last Discharge Permit issued prior to the effective date of the Dairy Rule (December 31, 2011) to receive wastewater and/or stormwater but has received wastewater and/or stormwater as of the effective date of this Discharge Permit; subject to closure and post-closure monitoring.
    - ix. **Field 10** - authorized for use by this Discharge Permit.
    - x. **Field 11** - authorized for use by this Discharge Permit.

### 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 60,000 gpd of wastewater from the production area. Wastewater flows to a concrete sump and is pumped through a screen solids separator and then to one of two passive solids separators to a synthetically lined wastewater impoundment for storage. Wastewater is land applied by flood and center pivot irrigation to up to 227 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) **Wastewater Impoundment** – authorized to receive wastewater for storage prior to land application. This impoundment exists as of the effective date of this Discharge Permit and is lined with 50 mil high density polyethylene (HDPE).
  - b) **Stormwater Impoundment 1** – authorized to receive stormwater for collection prior to land application. Stormwater is pumped to the parlor sump, through the solids separators and then flows to the Wastewater Impoundment for storage prior to land application.
  - c) **Stormwater Impoundment 2** – authorized to receive stormwater for collection prior to land application. Stormwater is pumped to the wastewater distribution system for the land application area.
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 233 acres.
  - a) **Field 1** – consists of 10 acres; applied by flood irrigation. 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/or stormwater and has received wastewater and/or stormwater as of the effective date of this Discharge Permit.
  - b) **Field 2** – consists of 34 acres; applied by flood irrigation. This field was authorized by the last Discharge Permit issued 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.
  - c) **Field 3** – consists of 55 acres; applied by center pivot. This field was authorized by the last Discharge Permit issued 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.
  - d) **Field 4** – consists of 55 acres; applied by center pivot. This field was authorized by the last Discharge Permit issued 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.
- e) **Field 6** – consists of 22 acres; applied by flood irrigation. This field was not authorized by the last Discharge Permit issued prior to the effective date of the Dairy Rule (December 31, 2011) to receive wastewater and/or stormwater but has received wastewater and/or stormwater as of the effective date of this Discharge Permit.
  - f) **Field 7** – consists of 10 acres; applied by flood irrigation. This field was not authorized by the last Discharge Permit issued prior to the effective date of the Dairy Rule (December 31, 2011) to receive wastewater and/or stormwater but has received wastewater and/or stormwater as of the effective date of this Discharge Permit.
  - g) **Field 10** – consists of 15 acres; applied by flood irrigation. This field was not authorized by the last Discharge Permit issued prior to the effective date of the Dairy Rule (December 31, 2011) to receive wastewater and/or stormwater but has received wastewater and/or stormwater as of the effective date of this Discharge Permit.
  - h) **Field 11** – consists of 32 acres; applied by flood irrigation. This field was not authorized by the last Discharge Permit issued prior to the effective date of the Dairy Rule (December 31, 2011) to receive wastewater and/or stormwater and has not received wastewater and/or stormwater as of the effective date of this Discharge Permit.

#### **DAIRY RULE TRANSITION REQUIREMENTS**

- 4. The permittee shall have 90 days from the effective date of this Discharge Permit (**by October 12, 2014**) 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 and/or Modification 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 and/or modification 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.1
- d) Part II.A.2(a) and (b)
- e) Part II.B.1 through 5, 6 and 7
- f) Part II.C
- g) Part II.D.2
- h) Part II.D.3(a) and (b)
- i) Part II.E.2 and 3

- j) Part II.F
- k) Part IV.B

**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.
- 6. 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><b><u>Flow Metering Plans:</u></b></p> <p>To achieve compliance with Subsection J of 20.6.6.20 NMAC, submit a description of the location and installation/construction information for a flow meter(s) to measure the following:</p> <ul style="list-style-type: none"> <li>• the volume of stormwater transferred from Stormwater Impoundment 2 to the land application distribution system (pursuant to Subsection H of 20.6.6.21 NMAC)</li> </ul>	<p><b>October 12, 2014</b></p>	<p>20.6.6.17.C(7) NMAC</p>

**OPERATIONAL REQUIREMENTS**

- 7. 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.
- 8. 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

Activity	Notification of Estimated Date	Verification of Actual Date
Resumption of Discharge	Minimum 30 days prior to resumption	Within 30 days of resumption

9. The permittee is authorized to transfer stormwater collected in the unlined stormwater impoundment(s) to the wastewater impoundment(s) or the distribution system for the land application area in accordance with Subsection I of 20.6.6.20 NMAC.
10. The permittee shall install and use the following flow meter(s) in accordance with Subsections J, K, L and N of 20.6.6.20 NMAC, and Subsections G and H of 20.6.6.21 NMAC.
- a) **Stormwater Meter** – to be located between Stormwater Impoundment 2 and the land application area distribution system to measure the volume of stormwater applied from Stormwater Impoundment 2 to fields in the land application area.

Confirmation of flow meter installation shall be completed in accordance with Subsection J of 20.6.6.20 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 October 12, 2014**) to submit documentation in accordance with 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) **Parlor Sump Meter** – located between the sump and the screen solids separator to measure the volume of wastewater discharged from the production area to the Wastewater Impoundment.
- b) **Backflow Meter** – located between the sump and the screen solids separator to measure the volume of wastewater which flows back to the sump from the screen solids separator when the sump pump is not operating.
- c) **Land Application Meter** – located north of the Wastewater Impoundment to measure the volume of wastewater discharged from the Wastewater Impoundment to each field in the land application area.
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. 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) **Field 1** – crops shall be harvested mechanically.
  - b) **Field 2** – crops shall be harvested mechanically.
  - c) **Field 3** – crops shall be harvested mechanically.
  - d) **Field 4** – crops shall be harvested mechanically.
  - e) **Field 6** – crops shall be harvested mechanically.
  - f) **Field 7** – crops shall be harvested mechanically.
  - g) **Field 10** – crops shall be harvested mechanically.
  - h) **Field 11** – 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.

16. 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><b><u>Flow Meter Installation:</u></b></p> <ul style="list-style-type: none"> <li>i) Complete installation of flow meter(s).</li> <li>ii) Submit confirmation of installation.</li> </ul>	<p><b>December 11, 2014</b></p> <p><b>January 10, 2015</b></p>	20.6.6.20.J NMAC
B.	<p><b><u>Scaled Map of Dairy Facility – Updates:</u></b></p> <p>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.</p>	<b>Within 90 days of any addition or change.</b>	20.6.6.20.V NMAC
C.	<p><b><u>Nutrient Management Plan:</u></b></p> <p>Develop and submit annual updates to the NMP.</p>	<b>Annually: May 1</b>	20.6.6.21.I NMAC
D.	<p><b><u>Backflow Prevention:</u></b></p> <ul style="list-style-type: none"> <li>i) Complete installation of backflow prevention methods or devices.</li> <li>ii) Submit confirmation of installation.</li> </ul>	<p><b>October 12, 2014</b></p> <p><b>January 10, 2015</b></p>	20.6.6.21.M NMAC

Item No.	Action Required and Submittal Due to NMED	Due Date	Citation
E.	<p><b><u>Backflow Prevention by Reduced Pressure Principle Backflow Prevention Assembly – Inspection and Maintenance:</u></b></p> <p>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.</p>	<p><b>Annually:</b>                      May 1</p>	<p>20.6.6.21.N                      NMAC</p>

**GROUND WATER MONITORING REQUIREMENTS**

17. 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.
18. Monitoring wells shall be constructed and completed in accordance with Subsection D of 20.6.6.23 NMAC.
19. Monitoring wells shall be permanently identified in accordance with Subsection C of 20.6.6.23 NMAC.
20. 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 October 12, 2014**) 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-1**, hydrologically upgradient of all contamination sources at the dairy facility.
  - b) **MW-2**, hydrologically downgradient of the Wastewater Impoundment and southeast of the Wastewater Impoundment.
21. 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><b><u>Ground Water Monitoring – Existing Stormwater Impoundments:</u></b></p> <p>Install the following monitoring wells within 75 feet hydrologically downgradient of the top inside edge of each existing stormwater impoundment:</p> <ul style="list-style-type: none"> <li>i) MW-4, hydrologically downgradient of Stormwater Impoundment 1</li> <li>ii) MW-5, hydrologically downgradient of Stormwater Impoundment 2.</li> </ul>	November 11, 2014	20.6.6.23.A(3) NMAC
B.	<p><b><u>Ground Water Monitoring – Existing Land Application Area:</u></b></p> <p>Install the following monitoring wells within 50 feet hydrologically downgradient of the downgradient boundary of existing fields within the land application area:</p> <ul style="list-style-type: none"> <li>i) MW-6, hydrologically downgradient of Field 1.</li> <li>ii) MW-7, hydrologically downgradient of Field 2.</li> <li>iii) MW-8, hydrologically downgradient of Fields 3 and 4.</li> </ul>	November 11, 2014	20.6.6.23.A(4) (a) and (b) NMAC
C.	<p><b><u>Ground Water Monitoring –Land Application Area:</u></b></p> <p>Install the following monitoring wells within 50 feet hydrologically downgradient of the downgradient boundary of fields within the land application area:</p> <ul style="list-style-type: none"> <li>i) MW-9, hydrologically downgradient of Fields 6 and 7.</li> <li>ii) MW-10, hydrologically downgradient of Fields 8 and 9</li> <li>iii) MW-11, hydrologically downgradient of Field 10.</li> </ul>	November 11, 2014	20.6.6.23.A(4) (a) NMAC
D.	<p><b><u>Ground Water Monitoring – New Land Application Area:</u></b></p> <p>Install the following monitoring wells within 50 feet hydrologically downgradient of the downgradient boundary of new fields within the land application area:</p> <ul style="list-style-type: none"> <li>i) MW-12, hydrologically downgradient of Field 11.</li> </ul>	Prior to applying wastewater or stormwater to the field.	20.6.6.23.A(4) (a) NMAC
E.	<p><b><u>Ground Water Sampling and Reporting – Routine:</u></b></p> <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	20.6.6.23.G
F.	<p><b><u>Ground Water Sampling – New Monitoring Wells:</u></b></p> <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:</p> <ul style="list-style-type: none"> <li>i) MW-4, hydrologically downgradient of Stormwater Impoundment 1.</li> <li>ii) MW-5, hydrologically downgradient of Stormwater</li> </ul>	December 11, 2014	20.6.6.23.H NMAC

Item No.	Action Required and Submittal Due to NMED	Due Date	Citation
	<p>Impoundment 2.</p> <p>iii) MW-6, hydrologically downgradient of Field 1</p> <p>iv) MW-7, hydrologically downgradient of Field 2.</p> <p>v) MW-8, hydrologically downgradient of Fields 3 and 4.</p> <p>vi) MW-9, hydrologically downgradient of Fields 6 and 7.</p> <p>vii) MW-10, hydrologically downgradient of Fields 8 and 9</p> <p>viii) MW-11, hydrologically downgradient of Field 10.</p>		
G.	<p><b><u>Ground Water Sampling – New Monitoring Wells for New Fields:</u></b></p> <p>Collect ground water samples from monitoring wells required to be installed <i>within the term of the Discharge Permit</i>, (i.e., installed prior to land application on a newly activated field). 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:</p> <p>i) MW-12, hydrologically downgradient of Field 11.</p>	<p><b>Within 30 days of well completion.</b></p>	<p>20.6.6.23.H NMAC</p>
H.	<p><b><u>Monitoring Well Survey and Ground Water Flow Determination:</u></b></p> <p>Survey monitoring wells to a USGS benchmark.</p>	<p><b>December 11, 2014</b></p>	<p>20.6.6.23.I NMAC</p>
I.	<p><b><u>Monitoring Well Completion Report:</u></b></p> <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>	<p><b>January 10, 2014</b></p>	<p>20.6.6.23.J NMAC</p>
J.	<p><b><u>Monitoring Well Completion Report – Monitoring Wells for New Fields:</u></b></p> <p>Submit a monitoring well completion report for monitoring wells required to be installed <i>within the term of the Discharge Permit</i> (i.e., installed prior to land application on a newly activated field). The report shall include information from all monitoring wells.</p>	<p><b>Within 60 days of well completion.</b></p>	<p>20.6.6.23.J NMAC</p>
K.	<p><b><u>Ground Water Elevation Contour Maps:</u></b></p> <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>	<p><b>Quarterly</b></p>	<p>20.6.6.23.L NMAC</p>

### **MONITORING REQUIREMENTS**

22. 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.

23. 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**

24. 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.	<p><b><u>Wastewater Volume Measurement and Reporting:</u></b></p> <p>Using the Parlor Sump Meter located between the sump and the screen solids separator, measure the volume of wastewater discharged from the production area to the Wastewater Impoundment. Using the Backflow Meter located between the sump and the screen solids separator, measure the volume of wastewater which flows back to the sump from the screen solids separator when the sump pump is not operating. Calculate the volume of all wastewater discharged to the impoundment(s) authorized to contain wastewater by subtracting the Backflow Meter readings from those of the Parlor Sump Meter. Submit the meter readings and calculations.</p>	<b>Quarterly</b>	20.6.6.24.C NMAC
B.	<p><b><u>Stormwater Sampling and Reporting:</u></b></p> <p>Collect and analyze stormwater samples on a quarterly basis from each stormwater impoundment and submit results.</p>	<b>Quarterly</b>	20.6.6.24.D NMAC
C.	<p><b><u>Flow Meter Field Calibration:</u></b></p> <p>Perform flow meter field calibrations annually and submit a flow meter field calibration report.</p>	<b>Annually:</b> May 1	20.6.6.24.E NMAC
D.	<p><b><u>Volume of Wastewater and Wastewater/Stormwater Land Applied – Measurement and Reporting:</u></b></p> <p>Measure the volume of all wastewater discharges to each field within the land application area using a flow meter(s) and submit the information.</p>	<b>Quarterly</b>	20.6.6.25.A NMAC
E.	<p><b><u>Volume of Stormwater Land Applied – Measurement and Reporting:</u></b></p> <p>Measure the volume of all stormwater applications to each field within the land application area using a flow meter(s) and submit the information.</p>	<b>Quarterly</b>	20.6.6.25.B NMAC

Item No.	Action Required and Submittal Due to NMED	Due Date	Citation
F.	<p><b><u>Wastewater to be Land Applied – Sampling and Reporting:</u></b></p> <p>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.</p>	Quarterly	20.6.6.25.C NMAC
G.	<p><b><u>Manure Solids – Nitrogen Content:</u></b></p> <p>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.</p>	Quarterly	20.6.6.25.D NMAC
H.	<p><b><u>Irrigation Water – Sampling, Volume Applied and Reporting:</u></b></p> <p>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.</p>	Annually: May 1	20.6.6.25.E NMAC
I.	<p><b><u>Fertilizer Application Reporting:</u></b></p> <p>Maintain and submit a log of all additional fertilizer applied to each field within the land application area.</p>	Quarterly	20.6.6.25.F NMAC
J.	<p><b><u>Land Application Data Sheets:</u></b></p> <p>Complete and submit land application data sheets (LADS) for each field within the land application area.</p>	Quarterly	20.6.6.25.G NMAC
K.	<p><b><u>Crop Yield Documentation:</u></b></p> <p>Submit crop yield documentation and plant and harvest dates of each crop grown.</p>	Quarterly	20.6.6.25.H NMAC
L.	<p><b><u>Nitrogen Concentration of Harvested Crop:</u></b></p> <p>Determine the percent total nitrogen and dry matter of each harvested crop and submit results.</p>	Quarterly	20.6.6.25.I NMAC
M.	<p><b><u>Nitrogen Removal Summary of Harvested Crop:</u></b></p> <p>Develop and submit a nitrogen removal summary for each crop grown on each field within the land application area.</p>	Quarterly	20.6.6.25.J NMAC
N.	<p><b><u>Soil Sampling – Initial Event in a Discharge Permit Term:</u></b></p> <p>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.</p>	May 1, 2015	20.6.6.25.K NMAC

Item No.	Action Required and Submittal Due to NMED	Due Date	Citation
O.	<p><b><u>Soil Sampling – Routine:</u></b>                      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.</p>	<p><b>Annually:</b>                      May 1</p>	<p>20.6.6.25.L                      NMAC</p>

**CONTINGENCY REQUIREMENTS**

25. 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**

26. 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.
27. Only upon written notification by certified mail from NMED, shall the permittee 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.
- a) **MW-3** – located approximately 500 feet southeast of Field 4.

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

**GENERAL REQUIREMENTS**

28. 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.
29. 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.
30. Transfer of a Discharge Permit for a dairy facility shall be completed in accordance with Section 20.6.6.34 NMAC.

31. 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.
32. 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 have 180 days from the effective date of this Discharge Permit (**by January 10, 2014**) to remove the compost/manure stockpiles west of MW-1. The permittee shall submit photographic documentation of compost/manure stockpile removal within 30 days of completion.

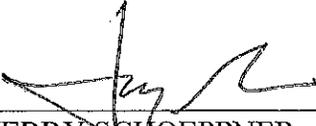
#### VI. PERMIT ISSUANCE

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: **July 14, 2014**

Expiration Date: **July 14, 2019**

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