NEW MEXICO
ENVIRONMENT DEPARTMENT

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RYAN FLYNN
Cabinet Secretary
BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

October 28, 2014

Mike DeGroot, Owner
Cross Country Dairy
2157 State Road 108
Texico, NM 88135

RE: Discharge Permit Renewal and Modification, DP-1379, Cross Country Dairy

Dear Mr. DeGroot:

On March 22, 2013, the New Mexico Environment Department (NMED) proposed renewal of the Ground Water Discharge Permit for **Cross Country Dairy**, DP-1379, pursuant to Subsection H of 20.6.2.3108 NMAC. A draft Discharge Permit Renewal was sent to you at that time. In response, NMED received comments from the facility on April 17, 2013. All of the comments were considered by NMED. 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, DP 1379, to Mike DeGroot, Owner/Operator (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

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 the remaining permit fee balance of $1,725.00.

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 October 28, 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 Jennifer Pruett (505) 827- 0652 or Nancy McDuffie, Acting Agricultural Waste Team Leader at (505) 222-9523. Thank you for your cooperation during this Discharge Permit review.

Sincerely,

Jerry Schoeppner, Chief
Ground Water Quality Bureau

JS:ND/njm

Encs: Discharge Permit Renewal, DP-1379

cc: Agricultural Waste Team Leader, NMED-GWQB (permit)
District Manager, NMED District III (permit – electronic copy)
John Romero, Office of the State Engineer (permit – electronic copy)
Chet Wyant, EnviroCompliance Services, Inc., 564 SR 523, Clovis, NM 88101 (permit)

GROUND WATER DISCHARGE PERMIT - RENEWAL AND MODIFICATION
EXISTING DAIRY FACILITY with a LAND APPLICATION AREA
Cross Country Dairy, DP-1379

I. INTRODUCTION AND SUMMARY

The New Mexico Environment Department (NMED) issues this Discharge Permit Renewal and Modification (Discharge Permit), DP-1379, to Mike DeGroot (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 Cross Country 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 75,000 gallons per day (gpd) of wastewater may be discharged from the production area. Wastewater flows to a passive two-cell concrete solids separator into either of two synthetically lined combination wastewater and stormwater impoundments for storage. Wastewater is land applied by center pivot irrigation to up to 406 acres of irrigated cropland under cultivation; the 406 acres are located in Parmer County, Texas. The modification consists of increasing the land application area from 327 acres to 406 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 2157 State Road 108, approximately 13 miles north of Texico, in Sections 10 and 15, Township 04N, Range 37E, Curry County. Ground water most likely to be affected is at a depth of approximately 389 feet and had a pre-discharge total dissolved solids concentration of approximately 320 milligrams per liter.

The original Discharge Permit was issued on June 28, 2002. The application consists of the materials submitted by the permittee dated June 11, 2009, 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
Cl	chloride
gpd	gallons per day

Abbreviation	Explanation
NO_3-N	nitrate-nitrogen
S	Sulfur

Abbreviation	Explanation		Abbreviation	Explanation
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. The Discharge Permit for this facility last issued on June 28, 2002 (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, plus stormwater runoff and direct precipitation generated from the facility, 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 does not measure the volume of wastewater discharged to wastewater impoundment(s) using a flow meter installed on the discharge line(s) from all wastewater sources to the wastewater impoundment(s). As of the effective date of this Discharge Permit, the dairy facility uses a supply meter(s) to estimate the volume of wastewater

generated in the production area. The meter(s) measures the volume of all fresh water contributing to the wastewater discharged from the production area.

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) Combination Wastewater/Stormwater Impoundments
      i. **RCS Impoundment** - authorized for use by this Discharge Permit.
      ii. **PWRS Impoundment** - authorized for use by this Discharge Permit.
   b) Fields within the Land Application Area
      i. **LAA-B** – 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; however, the field has not received wastewater/stormwater as of the effective date of this Discharge Permit.
      ii. **LAA-C** - 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; however, the field has not received wastewater/stormwater as of the effective date of this Discharge Permit.
      iii. **LAA-D** - 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; however, the field has not received wastewater/stormwater as of the effective date of this Discharge Permit.
      iv. **LAA-A** - 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; however, the field has not received wastewater/stormwater as of the effective date of this Discharge Permit. This field has been covered by corrals and no longer exists.
      v. Wastewater is applied to four fields under center pivot consisting of 406 total acres each in Parmer County, Texas

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 75,000 gpd of wastewater from the production area. Wastewater flows to a passive two-cell concrete solids separator to either of two synthetically lined combination wastewater and stormwater impoundments for storage. Wastewater is land applied by center pivot irrigation to up to 406 acres of irrigated cropland under cultivation, located in Parmer County, Texas.

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) **RCS Impoundment** – authorized to receive wastewater and stormwater for storage prior to land application. This impoundment exists as of the effective date of this Discharge Permit and is synthetically lined with 60-mil HDPE.
   b) **PWRS Impoundment** – authorized to receive wastewater and stormwater for storage prior to land application. This impoundment exists as of the effective date of this Discharge Permit and is synthetically lined with 60-mil HDPE.

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. Wastewater is applied to four fields totaling 406 acres located in Palmer County, Texas.

DAIRY RULE TRANSITION REQUIREMENTS

4. The permittee shall have 90 days from the effective date of this Discharge Permit (**by January 26, 2015**) 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, and 7
   f) Part II.C
   g) Part II.D.2
   h) Part II.D.3(a)
   i) Part II.F
   j) Part IV.A
   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.

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. 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 DATE**) 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.

9. 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) **LAA Flow Meter** – located on the discharge line from the impoundments to the land application area; used to measure the volume of wastewater discharged from the RCS and PWRS Impoundments to each field in the land application area.

10. The permittee is authorized to use the following existing flow meter(s) pursuant to the alternative requirements of Subsection N of 20.6.6.20 NMAC provided that the requirements of Subsection M of 20.6.6.20 NMAC have been met.
    a) **Parlor Water Supply Meter** – located in the milking center pump room to measure the volume of all fresh water contributing to the wastewater discharged

to the RCS and PWRS Impoundment; providing an estimate of the volume of wastewater generated from the milking parlor barn.

11. 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.

12. 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.

13. 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.	**Scaled Map of Dairy Facility – Updates:** 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

GROUND WATER MONITORING REQUIREMENTS

14. 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.

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

16. Monitoring wells shall be permanently identified in accordance with Subsection C of 20.6.6.23 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.	**Ground Water Monitoring – Existing Combination Wastewater/Stormwater Impoundments:** Install the following monitoring wells within 75 feet hydrologically downgradient of the top inside edge of each existing combination impoundment: i) **MW-2A**, hydrologically downgradient of PWRS Impoundment (replaces MW-2). ii) **MW-3**, hydrologically downgradient of RCS Impoundment.	**February 25, 2015**	20.6.6.23.A(2) NMAC
B.	**Ground Water Monitoring – Upgradient:** Install a monitoring well, **MW-1A**, hydrologically upgradient of all contamination sources at the dairy facility, to replace the supply well known as MW-1.	**February 25, 2015**	20.6.6.23.A(5) NMAC
C.	**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
D.	**Ground Water Sampling – New Monitoring Wells:** Collect ground water samples from monitoring wells required to be installed *within 120 days of the effective date of the Discharge Permit.* 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) **MW-1A**, hydrologically upgradient of all contamination sources at the dairy facility. ii) **MW-2A**, hydrologically downgradient of PWRS Impoundment. iii) **MW-3**, hydrologically downgradient of RCS Impoundment.	**March 27, 2015**	20.6.6.23.H NMAC
E.	**Monitoring Well Survey and Ground Water Flow Determination:** Survey monitoring wells required to be installed *within 120 days of the effective date of the Discharge Permit* to a USGS benchmark. Survey monitoring wells required to be installed *within the term of the Discharge Permit* to a USGS benchmark.	**March 27, 2015** **Upon well completion, to be included in the well completion report.**	20.6.6.23.I NMAC
F.	**Monitoring Well Completion Report:** Submit a monitoring well completion report for monitoring wells required to be installed *within 120 days of the effective*	**April 26, 2015**	20.6.6.23.J NMAC

Item No.	Action Required and Submittal Due to NMED	Due Date	Citation
	date of the Discharge Permit. The report shall include information from all monitoring wells.		
G.	**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

MONITORING REQUIREMENTS

18. 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.

19. 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**

20. 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.	**Wastewater Volume Estimation and Reporting:** Using a flow meter(s) installed on the fresh water supply line(s), measure the volume of all sources contributing to the wastewater discharged to the impoundment(s) authorized to contain wastewater. Submit the meter readings (without adjustments or deductions in accordance with Subsection N of 20.6.6.20 NMAC).	**Quarterly**	20.6.6.24.C NMAC
B.	**Flow Meter Field Calibration:** Perform flow meter field calibrations annually and submit a flow meter field calibration report.	**Annually:** May 1	20.6.6.24.E NMAC

Item No.	Action Required and Submittal Due to NMED	Due Date	Citation
C.	**Volume of Wastewater and Wastewater/Stormwater Land Applied – Measurement and Reporting:** 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
D.	**Wastewater to be Land Applied – Sampling and Reporting:** 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

CONTINGENCY REQUIREMENTS

21. 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

22. 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.

23. 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-2** – located approximately 50 feet east of PWRS Impoundment.

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

GENERAL REQUIREMENTS

24. 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.

25. 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.

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

27. 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.

28. 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. This Discharge Permit does not contain additional conditions.

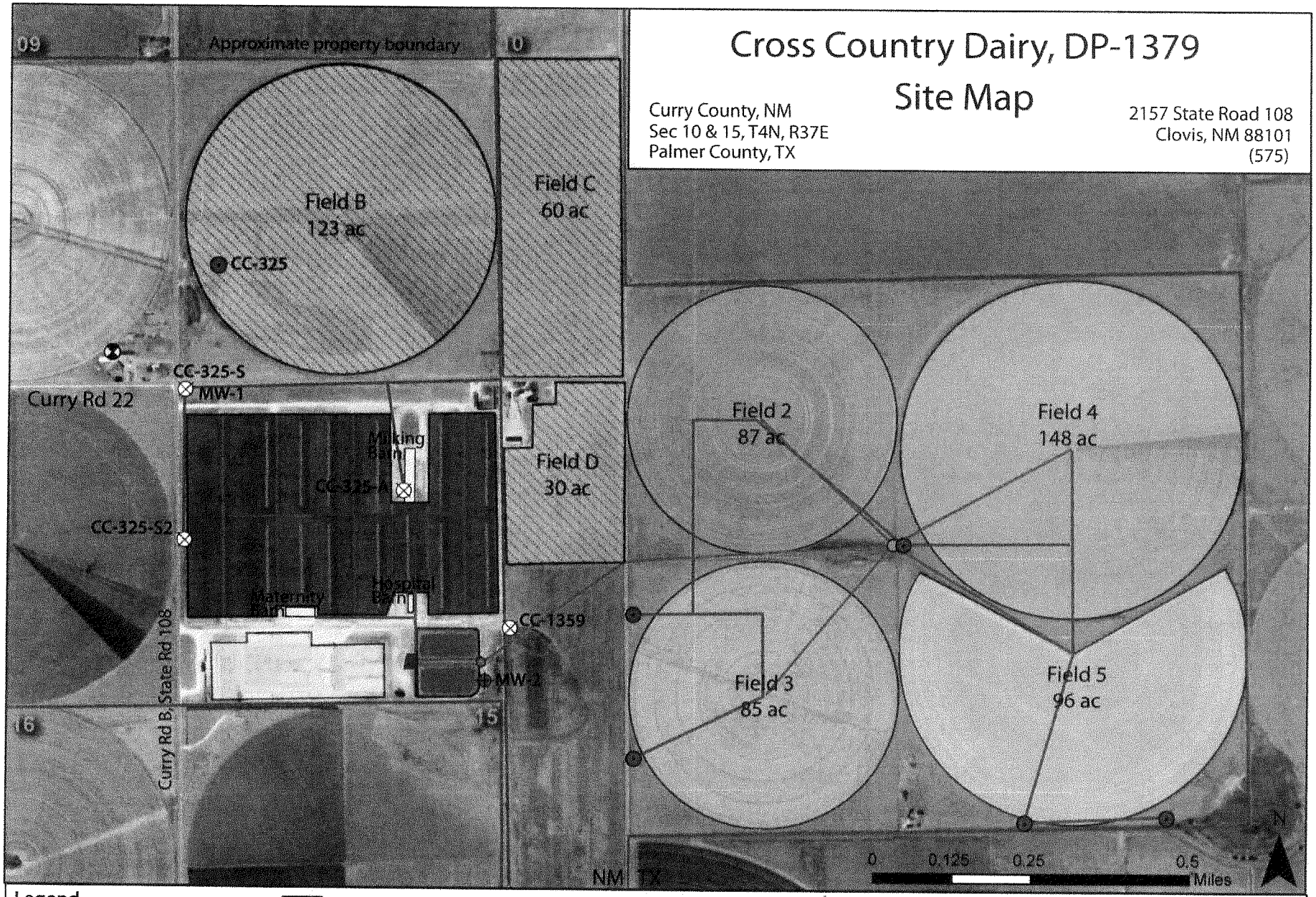
VI. PERMIT ISSUANCE

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: **October 28, 2014**
Expiration Date: **October 28, 2019**

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


Cross Country Dairy, DP-1379
Site Map
Curry County, NM
Sec 10 & 15, T4N, R37E
Palmer County, TX
2157 State Road 108
Clovis, NM 88101
(575)
09
Approximate property boundary
10
Field B
123 ac
CC-325
Field C
60 ac
CC-325-S
MW-1
Curry Rd 22
Milking Barn
CC-325-A
Field D
30 ac
CC-325-S2
Maternity Barn
Hospital Barn
CC-1359
MW-2
Curry Rd B, State Rd 108
16
15
Field 2
87 ac
Field 4
148 ac
Field 3
85 ac
Field 5
96 ac
NM TX
0
0.125
0.25
0.5
Miles
N
Legend
LAA - green water
Corrals, calf pens
Combination lagoon
Commodity storage
LAA - manure only
Monitoring well
Supply well
Irrigation well
Fresh water pipeline
Mixing tank w/air gap
Greenwater meter
Weeping wall
Green water pipeline
Domestic well
10
NM section lines
10/7/2013 EN
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