



NEW MEXICO
ENVIRONMENT DEPARTMENT



Ground Water Quality Bureau

BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant Governor

1190 St. Francis Drive
P.O. Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-2918 Fax (505) 827-2965
www.nmenv.state.nm.us

RON CURRY
Secretary
SARAH COTTRELL
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

September 24, 2010

John McCatharn, Owner
ParaSol Dairy
P.O. Box 19306
Albuquerque, NM 87119-0306

RE: Discharge Permit, DP-1641, ParaSol Dairy

Dear Mr. McCatharn:

The New Mexico Environment Department (NMED) issues the enclosed Discharge Permit, DP-1641, to John McCatharn 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 NMAC.

The Discharge Permit contains terms and conditions that shall be complied with by John McCatharn and are enforceable by NMED pursuant to Section 20.6.2.3104 NMAC, WQA, NMSA 1978 §74-6-5 and §74-6-10. Issuance of this Discharge Permit does not relieve John McCatharn 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.

Pursuant to Paragraph (4) of Subsection H of 20.6.2.3109 NMAC, the term of the Discharge Permit shall commence on the date the discharge begins. Prior to discharging, written notification shall be given to NMED stating the date the discharge is to commence. The term of this Discharge Permit shall be five years from the date the discharge commences, or seven years from the date of this letter, whichever occurs first. You must submit an application for renewal at least 180 days before the permit expiration date.

| | |
|--|----|
| U.S. Postal Service | |
| CERTIFIED MAIL | |
| <i>(Domestic Mail Only; No Ins)</i> | |
| For delivery information visit usps.com | |
| OFFICIAL MAIL | |
| Postage | \$ |
| Certified Fee | |
| Return Receipt Fee (Endorsement Required) | |
| Restricted Delivery Fee (Endorsement Required) | |
| John McCatharn, Owner ParaSol Dairy PO Box 19306 Albuquerque, NM 87119-0306 | |
| PS Form 3800, August 2006 | |

John McCatharn, DP-1641

September 24, 2010

Page 2

An invoice for the Discharge Permit Fee of \$1,150 is being sent under separate cover. Payment of the Discharge Permit Fee must be received by NMED within 30 days of the date the Discharge Permit is issued.

If you have any questions, please contact Sarah McGrath at (505) 827-2112. Thank you for your cooperation during this Discharge Permit review.

Sincerely,



Marcy Leavitt, Director
Water and Waste Management Division

ML:SKM

Encs: Discharge Permit, DP-1641

Ground Water Discharge Permit Conditions for Synthetically Lined Lagoons – Liner Material and Site Preparation, Revision 0.0, May 2007

Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions, Revision 1.0, July 2008

cc: Frank Fiore, District Manager, NMED District III (permit) – electronic transmittal

Jim Sizemore, Office of the State Engineer (permit) – electronic transmittal

Pete V. Domenici, Jr., Esq., Lorraine Hollingsworth, Esq., Domenici Law Firm, P.C., 320 Gold Avenue SW, Suite 1000, Albuquerque, NM 87102 (permit)

Steve Hansen/ Robert Maxwell, U.S. Department of Interior, Bureau of Reclamation, 555 Broadway Blvd. NE, Suite 100, Albuquerque, NM 87102-2352 (permit)

Josh Smith, Hubert & Hernandez, P.A., P.O. Box 2857, Las Cruces, NM 88004-2857 (permit)

Jerry Nivens, Caballo Concerned Citizens Group, P.O. Box 131, Caballo, NM 87931 (permit)

GROUND WATER DISCHARGE PERMIT

ParaSol Dairy, DP-1641

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this Discharge Permit, DP-1641, to John McCatharn (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 NMAC.

NMED's purpose in issuing this Discharge Permit, and in imposing the requirements and conditions specified herein, is to control the discharge of water contaminants from ParaSol Dairy into ground and surface water, so as to protect ground and surface water for present and potential future use as domestic and agricultural water supply and other uses and protect public health. In issuing this Discharge Permit, NMED has determined that the requirements of Subsection C of 20.6.2.3109 NMAC have been met.

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:

Up to 8,000 gallons per day (gpd) of wastewater is discharged from the milking parlor and hospital barn. Wastewater from the parlor and hospital barn gravity flows via a pipeline/concrete channel through a weeping wall separator and collects in a double synthetically lined wastewater lagoon with leak detection for storage and evaporation. A single synthetically lined combination wastewater/stormwater lagoon shall be used to contain a volume of stormwater runoff and direct precipitation that is, at a minimum, 25% greater than the volume generated by a 25-year, 24-hour rainfall event and evaporate wastewater. In the event that the single synthetically lined combination wastewater/stormwater lagoon receives and contains stormwater runoff and direct precipitation (from a single event or multiple events) that is in excess of a volume 25% greater than the volume generated by a 25-year, 24-hour rainfall event, the permittee is authorized to discharge from the single synthetically lined combination wastewater/stormwater lagoon to four unlined contingency stormwater impoundments. The discharge contains water contaminants or toxic pollutants which may be elevated above the standards of Section 20.6.2.3103 NMAC. The facility is located at ParaSol Farms, off Hwy 187, approximately 5 miles southwest of Caballo, in Sections 21 and 22, T16S, R05W, Sierra County. Ground water most likely to be affected is at a depth of approximately 32 - 57 feet and has a total dissolved solids concentration of approximately 240 milligrams per liter.

The permittee's application consists of the materials submitted by John McCatharn dated March 22, 2007, July 31, 2007, August 24, 2007, September 21 and 25, 2007, October 7, 2008, October 30, 2008, July 21, 2010 and August 9, 2010. The discharge shall be managed in accordance with all conditions and requirements of this Discharge Permit.

Pursuant to Section 20.6.2.3109 NMAC, NMED reserves the right to require a Discharge Permit Modification in the event NMED determines that the requirements of 20.6.2 NMAC are being or may be violated or the standards of Section 20.6.2.3103 NMAC are being or may be violated. This may include a determination that structural controls and/or management practices approved

under this Discharge Permit are not protective of ground water quality, and that more stringent requirements to protect and/or remediate ground water quality may be required by NMED. These requirements may include: relining lagoons; expanding land application areas; changing waste management practices; expanding monitoring requirements; installing an advanced treatment system; and/or implementing abatement of water pollution.

Issuance of this Discharge Permit does not relieve John McCatharn 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 abbreviations may be used in this Discharge Permit:

| Abbreviation | Explanation | Abbreviation | Explanation |
|------------------|-----------------------------------|--------------------|----------------------------------|
| BOD ₅ | biochemical oxygen demand (5-day) | NMSA | New Mexico Statutes Annotated |
| CFR | Code of Federal Regulations | NO ₃ -N | nitrate-nitrogen |
| CFU | colony forming units | NTU | nephelometric turbidity units |
| Cl | chloride | TDS | total dissolved solids |
| LADS | land application data sheet(s) | TKN | total Kjeldahl nitrogen |
| mg/L | milligrams per liter | TSS | total suspended solids |
| mL | milliliters | total nitrogen | TKN+NO ₃ -N |
| NMAC | New Mexico Administrative Code | WQCC | Water Quality Control Commission |
| NMED | New Mexico Environment Department | CFS | Cubic feet per second |

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. John McCatharn is discharging effluent or leachate from ParaSol Dairy so that such effluent or leachate may move directly or indirectly into ground water within the meaning of Section 20.6.2.3104 NMAC.
2. John McCatharn is discharging effluent or leachate from ParaSol Dairy so that such effluent or leachate 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.
3. The discharge from ParaSol Dairy is not subject to any of the exemptions of Section 20.6.2.3105 NMAC.

III. CONDITIONS

The following conditions shall be complied with by John McCatharn and are enforceable by NMED. John McCatharn is permitted to discharge water contaminants subject to the following conditions:

OPERATIONAL PLAN

| # | Terms and Conditions |
|----|---|
| 1. | The permittee shall implement the following operational plan to ensure compliance with Title 20, Chapter 6, Parts 1 and 2 NMAC. [20.6.2.3106.C NMAC, 20.6.2.3107 NMAC] |
| 2. | The permittee shall operate in a manner such that standards and requirements of Sections 20.6.2.3101 and 20.6.2.3103 NMAC including human health, other domestic water supply, irrigation standards, and other uses are not violated. [20.6.2.3103 NMAC] |
| 3. | The permittee is authorized to discharge up to 8,000 gpd of wastewater from the milking parlor and hospital barn. Wastewater from the parlor and hospital barn gravity flows via a pipeline/concrete channel through a weeping wall separator and collects in a double synthetically lined wastewater lagoon with leak detection for storage and evaporation. A single synthetically lined combination wastewater/stormwater lagoon shall be used to contain a volume of stormwater runoff and direct precipitation that is, at a minimum, 25% greater than the volume generated by a 25-year, 24-hour rainfall event and evaporate wastewater. In the event that the single synthetically lined combination wastewater/stormwater lagoon receives and contains stormwater runoff and direct precipitation (from a single event or multiple events) that is in excess of a volume 25% greater than the volume generated by a 25-year, 24-hour rainfall event, the permittee is authorized to discharge from the single synthetically lined combination wastewater/stormwater lagoon to four unlined contingency stormwater impoundments. [20.6.2.3104 NMAC] |
| 4. | Prior to discharging from the facility, the permittee shall give written and verbal notification to NMED stating the date the discharge is to commence. [20.6.2.3109.H NMAC] |
| 5. | Within 120 days after the effective date of this Discharge Permit and prior to discharging from the facility, a contingency plan for E. coli in ground water shall be developed in accordance with the WQCC's June 14, 2010 Final Order WQCC 08-05(A). The plan shall include regular and periodic monitoring for E. coli in ground water. Once approved in writing by NMED the plan shall become part of the Discharge Permit. [WQCC 08-05(A), page 6] |
| 6. | The permittee shall remove manure solids from the facility in a manner and at a frequency necessary to prevent the contamination of ground water. The corrals shall be scraped on a monthly basis, at a minimum. Manure shall be stored outside of the corral area and removed from the facility at least two times per year. Management practices for manure stored at the facility prior to removal shall minimize generation and infiltration of leachate by diverting stormwater run-on and run-off and by preventing the ponding of water within areas used for manure stockpiling. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC] |

| | |
|----|---|
| 7. | <p>Prior to discharging from the facility, the permittee shall construct two lagoons: one double synthetically lined wastewater lagoon with leak detection for the storage and evaporation of wastewater; and one single synthetically lined combination wastewater/stormwater lagoon for containing a volume of stormwater runoff and direct precipitation that is, at a minimum, 25% greater than the volume generated by a 25-year, 24-hour rainfall event and evaporating wastewater. The lagoons shall be constructed in accordance with the capacity calculations submitted with the Discharge Permit application, final construction plans and specifications as required by this Discharge Permit and the attachment titled <i>Ground Water Discharge Permit Conditions for Synthetically Lined Lagoons - Liner Material and Site Preparation</i>, Revision 0.0, May 2007. The permittee shall notify NMED at least five working days prior to lagoon construction to allow NMED personnel to be onsite for inspection. Record drawings and final specifications for the lagoons, lagoon liners, leak detection system and final lagoon capacity calculations, shall be submitted to NMED as required by this Discharge Permit. [20.6.2.3109 NMAC]</p> |
| 8. | <p>Prior to discharging from the facility, the permittee shall submit, for NMED approval, final construction plans and specifications for all constructed elements associated with the evaporation of wastewater and containment of stormwater, as listed above. This includes, but is not limited to: all constructed drainage structures; all piping and other constructed conveyances; and the two lagoons. The first lagoon is a double synthetically lined lagoon with leak detection for the storage and evaporation of wastewater. The second lagoon is a single synthetically lined combination wastewater/stormwater lagoon for containing a volume of stormwater runoff and direct precipitation that is, at a minimum, 25% greater than the volume generated by a 25-year, 24-hour rainfall event and evaporating wastewater.</p> <ol style="list-style-type: none">1. The construction plans shall comply with the format and content outlined in the <u>Recommended Standards for Wastewater Facilities</u>, New Mexico Environment Department, 2003 ed.2. The specifications should address all constructed elements associated with disposal of the permitted waste. In brief, the specifications must address:<ol style="list-style-type: none">a. The type and quality of every product in the project.b. The quality of the workmanship, including the quality during manufacture, fabrication, application, installation, finishing and adjusting.c. Requirements for fabrication, storage, erection, application, installation, and finishing.d. Applicable regulatory requirements, including codes and standards applicable to performance of work as part of the project.e. Instructions for testing materials and equipment as necessary to meet design standards.f. Performance tests for the completed facilities and component units.g. Specification and procedures for operation during construction. <p>[20.6.2.3109 NMAC]</p> |
| 9. | <p>Prior to discharging from the facility, the permittee shall submit a final comprehensive Grading and Drainage Plan that shall encompass the following:</p> |

Format

The Grading and Drainage Plan must adhere to or contain the following format elements:

1. North Arrow.
2. Scale – must allow all necessary information to be plainly shown.
3. Notes defining property line, ponding areas, project limits, and all other areas whose definition would increase clarity.
4. Vicinity Map.
5. Contributing Area – delineation of offsite contributing watersheds. Watershed and basin designations shall match those used in the hydrology calculations.
6. Benchmark – location, description and elevation.
7. Existing and Proposed Contours -vertical intervals for contour maps shall not exceed:
 - a. One foot intervals for slopes under 1%.
 - b. Two foot intervals for slopes between 1% and 5%.
 - c. Five foot intervals for slopes in excess of 5%.
8. Spot elevations – supply spot elevations at the following:
 - a. Key points and grade breaks.
 - b. Critical locations.
 - c. Floor and/or pad elevations for existing and/or proposed structures.
 - d. Inverts of piping associated with system.
9. Identification of all existing and proposed structures located onsite.
10. Identification of all existing and proposed drainage facilities located onsite.
11. Pertinent elevations of structures and facilities.
12. Internal contributory drainage areas, including roof areas, parking lots, and other disturbed areas (e.g. feed lots), outlined on plan.
13. Flows (CFS) and flow lines defined by arrows and spot elevations, as appropriate for clarity.
14. Details of ponds (and identification as a retention or detention pond), inlets, rundowns, emergency spillways, pond outlets (retention ponds), slopes, and all other significant drainage structures with contours, cross-sections and spot elevations. All cross-sections must be drawn to a standard engineering scale and adequately dimensioned.
15. The Grading and Drainage Plan shall be sealed by a Professional Engineer licensed in the State of New Mexico.

[20.6.2.3109 NMAC]

10. Prior to discharging from the facility, the permittee shall submit construction Quality Assurance/Quality Control (QA/QC) documentation to include the following:

1. Records of installation, sampling, testing, installation verification, and other preparatory or start up activities required as part of the project documentation for any component related to a sewerage or waste disposal system.
2. Submittals shall contain the actual results of any sampling or testing and copies of any reports or documentation required for warranty certification.
3. A summary report of the sampling and testing certified by the design engineer may be submitted in lieu of the actual results. The summary report must contain a

| | |
|-----|--|
| | <p>summary of all actual results and shall be sealed by a Professional Engineer licensed in the State of New Mexico.</p> <p>4. Submittal information may include, but is not limited to:</p> <ul style="list-style-type: none">a. Soil profiles;b. Soil testing (Atterberg);c. Field density tests;d. Concrete strength tests;e. Leakage tests;f. Mandrel tests;g. Pressure tests, andh. Flexible Liner destructive and non-destructive testing. <p>[20.6.2.3109 NMAC]</p> |
| 11. | <p>Prior to discharging from the facility, the permittee shall submit record drawings for the double synthetically lined wastewater lagoon and single synthetically lined combination wastewater/stormwater lagoon to include the following:</p> <ul style="list-style-type: none">1. Record drawings shall be prepared and certified by a Professional Engineer and/or Professional Land Surveyor currently licensed in the State of New Mexico.2. Each sheet shall be sealed, dated, and be clearly marked as "Record Drawings".3. Record drawings shall include all changes in the plans, including those issued as change orders, plan clarifications, addenda, notices to bidders, responses to requests for information, jobsite memos, and any additional details needed for the construction of the project but not shown on the "as-bid" plans.4. Record drawings must show the horizontal location of all changes denoting the actual location to the nearest 1.0 ft., where applicable. An enlarged detail must be included when multiple items are installed as a unit or when clarity of the location of the changes cannot be obtained on standard plan and profile views.5. Record drawings must show the vertical elevation of all changes denoting the actual elevation to the nearest 0.1 ft., where applicable. An enlarged detail must be included when multiple items are installed as a unit or when clarity of the location of the changes cannot be obtained on standard plan and profile views.6. All changes should be legible, clearly identified, and easily distinguishable from the "as-bid" plans. <p>[20.6.2.3109 NMAC]</p> |
| 12. | <p>The permittee shall divert stormwater from the corrals and other applicable areas at the facility (i.e. calf pens, alleys, feed storage and mixing, etc.) into the single synthetically lined combination wastewater/stormwater lagoon in a manner that minimizes impacts to ground and surface water. [20.6.2.3109 NMAC]</p> |
| 13. | <p>Prior to discharging from the facility, the permittee shall construct four unlined contingency stormwater impoundments in accordance with the diagram titled "Para Sol Farms, Final Draft of Dairy Design, July 2010" and received by NMED on July 21, 2010. The permittee shall sufficiently armor the area around the two four-acre unlined contingency stormwater impoundments in accordance with the methods prescribed by the United States Department of Agriculture Natural Resource Conservation Service.</p> <p>[WQCC 08-05(A), page 8]</p> |

| | |
|------------|---|
| <p>14.</p> | <p>The permittee shall operate and maintain the double synthetically lined wastewater lagoon for the storage and evaporation of wastewater and the single synthetically lined combination wastewater/stormwater lagoon for the containment of stormwater and evaporation of wastewater. The volume of wastewater in the single synthetically lined combination wastewater/stormwater lagoon shall not exceed a maximum operating depth of two feet. The single synthetically lined combination wastewater/stormwater lagoon shall be operated to receive and contain a volume of stormwater runoff and direct precipitation (from a single event or multiple events) that is 25% greater than the volume generated by a 25-year, 24-hour rainfall event. The double synthetically lined lagoon with leak detection shall not be used for the collection or management of stormwater. In order to maintain the required capacities, solids shall be removed from the lagoons as needed in a manner that is protective of the lagoon liner. [20.6.2.3109 NMAC]</p> |
| <p>15.</p> | <p>The permittee shall visually inspect the double synthetically lined wastewater lagoon, the single synthetically lined combination wastewater/stormwater lagoon, the unlined contingency stormwater impoundments, and the berms surrounding each lagoon and impoundment on a monthly basis to ensure proper maintenance. Any conditions that could damage the lagoon liners or affect the structural integrity of the lined lagoons or the unlined contingency stormwater impoundments shall be corrected. Such conditions include but are not limited to erosion damage, animal activity/damage, the presence of potentially harmful vegetation such as woody shrubs or excessive weeds, evidence of seepage, or the presence of large pieces of debris. The permittee shall keep a log of the inspection findings and repairs made. In the event that inspection findings reveal significant damage is likely to affect the ability of the lined lagoons or the unlined contingency stormwater impoundments to contain contaminants, the permittee shall submit a corrective action plan to NMED for approval. [20.6.2.3107 NMAC]</p> |
| <p>16.</p> | <p>Prior to discharging from the facility, the permittee shall submit to NMED an up-to-date as-built scaled map of the entire facility. The map shall be clear and legible, and drawn to a scale such that all necessary information is plainly shown and identified. The map shall show the scale in feet or metric measure, a graphical scale, a north arrow, and the effective date of the map. Documentation identifying the means used to locate the mapped objects (i.e., GPS, land survey, digital map interpolation, etc.) and the relative accuracy of the data (i.e., +/- XX feet or meters) shall be included with the map.</p> <p>The map shall include the following objects:</p> <ul style="list-style-type: none"> a) Overall dairy facility layout (barns, feed storage areas, pens, etc.); b) Location of sumps; c) Location of manure separators; d) Location of all wastewater storage lagoon(s); e) Location of all stormwater impoundment(s); f) Location of monitoring wells (including permanent designation). <p>The following elements shall also be shown on the map:</p> <ul style="list-style-type: none"> a) Location of meter measuring wastewater discharges to the lagoons; b) Location of all transfer pump(s); c) Location of all wastewater distribution pipelines; and |

| | |
|--|---|
| | <p>If these items cannot be directly shown, due to their location inside of existing structures or because they are buried without surface identification, they shall be identified on the map in a schematic format and called out as such.</p> <p>The facility map shall be updated and resubmitted to NMED within 120 days of any additions or changes to the facility layout which includes any of the items listed above. [20.6.2.3106 NMAC, 20.6.2.3109 NMAC]</p> |
|--|---|

MONITORING, REPORTING, AND OTHER REQUIREMENTS

| # | Terms and Conditions |
|-----|---|
| 17. | The permittee shall conduct the monitoring, reporting, and other requirements listed below. [20.6.2.3107 NMAC] |
| 18. | <p>METHODOLOGY - Unless otherwise approved in writing by NMED, the permittee shall conduct sampling and analysis in accordance with the most recent edition of the following documents:</p> <ul style="list-style-type: none"> a) American Public Health Association, Standard Methods for the Examination of Water and Wastewater (18th, 19th or current); b) U.S. Environmental Protection Agency, Methods for Chemical Analysis of Water and Waste; c) U.S. Geological Survey, Techniques for Water Resources Investigations of the U.S. Geological Survey; d) American Society for Testing and Materials, Annual Book of ASTM Standards, Part 31. Water; e) U.S. Geological Survey, et al., National Handbook of Recommended Methods for Water Data Acquisition; or f) Methods of Soil Analysis: Part 1. Physical and Mineralogical Methods and Part 2. Chemical and Microbiological Properties, American Society of Agronomy. <p>[20.6.2.3107.B NMAC]</p> |
| 19. | <p>The permittee shall submit quarterly monitoring reports to NMED by the 1st of February, May, August, and November of each year. Quarterly monitoring shall be performed during the following quarters and submitted as follows:</p> <ul style="list-style-type: none"> • January 1st through March 31st (first quarter) – due by May 1st; • April 1st through June 30th (second quarter) – due by August 1st; • July 1st through September 30th (third quarter) - due by November 1st; and • October 1st through December 31st (fourth quarter) - due by February 1st. <p>Monitoring requirements detailed in this Discharge Permit are summarized on the sheet titled <i>Summary of Required Actions, Monitoring and Reporting</i>. [20.6.2.3107 NMAC]</p> |
| 20. | <p>Prior to discharging from the facility, the permittee shall install the following totalizing flow meter:</p> <ul style="list-style-type: none"> • One meter installed on the transfer line from the parlor and hospital barn to the double |

| | |
|-----|---|
| | <p>synthetically lined wastewater lagoon with leak detection, or on an incoming line to the parlor and hospital barn that exclusively supplies all water used for washing purposes, to measure the volume of wastewater discharged from the milking parlor and hospital barn to the wastewater lagoon.</p> <p>Confirmation of meter installation, type, calibration and locations shall be submitted to NMED prior to discharging from the facility. [20.6.2.3109 NMAC]</p> |
| 21. | <p>The permittee shall measure the monthly volume of wastewater discharged from the milking parlor and hospital barn to the double synthetically lined wastewater lagoon using a totalizing flow meter. Monthly meter readings including units of measurement, calculations, and monthly discharge volumes for the previous 3-month period shall be submitted to NMED in the quarterly monitoring reports. The flow meter shall be kept operational at all times. [20.6.2.3107.A(1) NMAC, 20.6.2.3109.H NMAC]</p> |
| 22. | <p>The permittee shall measure the depth of wastewater in the single synthetically lined combination wastewater/stormwater lagoon on a weekly basis. A staff gauge or other method acceptable to NMED shall be employed to measure the depth of wastewater. Weekly measurements shall be submitted to NMED in the quarterly monitoring reports. [20.6.2.3109 NMAC]</p> |
| 23. | <p>Prior to discharging from the facility, the permittee shall install four (4) new monitoring wells. The permittee shall install:</p> <ul style="list-style-type: none"> • One monitoring well (MW-1) hydrologically upgradient of the facility, • One monitoring well (MW-2) located 20 to 50 feet hydrologically downgradient of the single synthetically lined combination wastewater/stormwater lagoon, • One monitoring well (MW-3) located 20 – 50 feet hydrologically downgradient of the two 1-acre unlined contingency stormwater impoundments, and • One monitoring well (MW-4) located 20 – 50 feet hydrologically downgradient of the two 4-acre unlined contingency stormwater impoundments. <p>All monitoring well locations shall be approved by NMED prior to installation. The wells shall be completed in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008. Construction and lithologic logs shall be submitted to NMED within 30 days of well completion. [20.6.2.3107 NMAC]</p> |
| 24. | <p>Prior to discharging from the facility, the permittee shall survey all wells approved by NMED for Discharge Permit monitoring purposes to a U.S. Geological Survey (USGS) or other permanent benchmark. Survey data shall include northing, easting and elevation to the nearest hundredth of a foot or in accordance with the "Minimum Standards for Surveying in New Mexico" (12.8.2 NMAC). A survey elevation shall be established at the top-of-casing, with a permanent marking indicating the point of survey. The survey shall be completed and certified by a licensed New Mexico professional surveyor. Depth-to-water shall be measured to the nearest hundredth of a foot in all surveyed wells, and the data shall be used to develop a map showing the location of all monitoring wells and the direction and gradient of ground water flow at the facility. The data and map of ground water flow direction at the facility shall be submitted to NMED within 30 days of survey completion. [20.6.2.3107 NMAC]</p> |

| | |
|-----|--|
| 25. | <p>Prior to discharging from the facility and quarterly thereafter, the permittee shall perform ground water sampling in four wells used for monitoring. The permittee shall sample:</p> <ul style="list-style-type: none"> • MW-1 intended to be located hydrologically upgradient of the facility, • MW-2 intended to be located 20 to 50 feet hydrologically downgradient of the single synthetically lined combination wastewater/stormwater lagoon, • MW-3 intended to be located 20 – 50 feet hydrologically downgradient of the two 1-acre unlined contingency stormwater impoundments, and • MW-4 intended to be located 20 – 50 feet hydrologically downgradient of the two 4-acre unlined contingency stormwater impoundments. <p>The ground water sampling shall be performed according to the following procedure:</p> <ol style="list-style-type: none"> a) measure the depth-to-ground water from the top of well casing to the nearest hundredth of a foot; b) purge three well volumes of water from the well prior to sample collection; and c) obtain samples from the well to be analyzed for NO₃-N, TKN, Cl, and TDS. <p>Depth-to-water measurements, analytical results, and a facility layout map showing the location and number of each well shall be submitted to NMED immediately after the initial sampling and in the quarterly monitoring reports. [20.6.2.3107 NMAC]</p> |
| 26. | <p>The permittee shall develop a ground water elevation contour map on a quarterly basis using the monitoring well survey data and quarterly depth-to-water measurements as required by this Discharge Permit. The ground water elevation contour map shall depict the ground water flow direction based on the ground water elevation contours. The data and ground water elevation contour map shall be submitted to NMED in the quarterly monitoring reports. [20.6.2.3107 NMAC]</p> |
| 27. | <p>The permittee shall collect a wastewater grab sample from the single synthetically lined combination wastewater/stormwater lagoon on a quarterly basis and analyze the samples for NO₃-N, TKN, Cl, and TDS. Analytical results and a map showing the wastewater sampling location shall be submitted to NMED in the quarterly monitoring report. [20.6.2.3107 NMAC]</p> |
| 28. | <p>The permittee shall inspect the leak collection sump at the double synthetically lined wastewater lagoon for the presence of any collected liquid on a quarterly basis. The permittee shall submit the results of each quarterly inspection with the quarterly monitoring reports. [20.6.2.3107 NMAC]</p> |

CONTINGENCY PLAN

| # | Terms and Conditions |
|-----|--|
| 29. | <p>In the event that monitoring indicates ground water standards are violated during the term of this Discharge Permit, upon closure of the facility or during post-closure monitoring, the permittee shall collect a confirmatory sample from the monitoring well within 15 days to confirm the initial sampling results. Within 15 days of confirmation of ground water contamination, the permittee shall submit to NMED a corrective action plan that proposes</p> |

| | |
|-----|--|
| | <p>measures to mitigate damage from the discharge including, at a minimum, source control measures and an implementation schedule. The permittee may be required to abate water pollution pursuant to Sections 20.6.2.4000 through 20.6.2.4115 NMAC, if the corrective action plan will not result in compliance with the standards and requirements set forth in Section 20.6.2.4103 NMAC within 180 days of confirmation of ground water contamination. [20.6.2.1203 NMAC, 20.6.2.4105.A(8) NMAC]</p> |
| 30. | <p>In the event of a spill or release that is not authorized under this Discharge Permit, the permittee shall initiate the notifications and corrective actions as required in Section 20.6.2.1203 NMAC. The permittee shall take immediate corrective action to contain and remove or mitigate the damage caused by the discharge. Within 24 hours after discovery of the discharge, the permittee shall verbally notify NMED and provide the information required by Paragraph (1) of Subsection A of 20.6.2.1203 NMAC. Wastewater shall be contained, pumped and/or transferred to the double synthetically lined wastewater lagoon as necessary. Failed components shall be repaired or replaced within 48 hours from the time of failure or as soon as possible. Within seven days of discovering the discharge, the permittee shall submit a written report to NMED verifying the oral notification and providing any additional information or changes. The permittee shall submit a corrective action report within 15 days after discovery of the discharge. [20.6.2.1203 NMAC]</p> |
| 31. | <p>In the event that standing liquid is present in the collection sump of the double synthetically lined wastewater lagoon, the liquid shall be sampled and analyzed for NO₃-N, TKN, Cl, and TDS. If analytical results indicate that the primary synthetic liner has been compromised, the permittee shall submit a corrective action plan within 30 days of confirmation of the liner failure, to include: repair or replacement of the primary synthetic liner; and installation of one monitoring well (MW-5) located 20 – 50 feet hydrologically downgradient of the double synthetically lined wastewater lagoon. [20.6.2.4103 NMAC]</p> |
| 32. | <p>In the event that a minimum of two feet of freeboard cannot be maintained in the double synthetically lined wastewater lagoon at all times, the permittee shall submit a corrective action plan for NMED approval to modify the management of discharge volumes. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]</p> |
| 33. | <p>In the event that the single synthetically lined combination wastewater/stormwater lagoon receives and contains stormwater runoff and direct precipitation (from a single event or multiple events) that is in excess of a volume 25% greater than the volume generated by a 25-year, 24-hour rainfall event, the permittee is authorized to discharge from the single synthetically lined combination wastewater/stormwater lagoon to four unlined contingency stormwater impoundments. The contingency stormwater impoundments include two 1-acre unlined impoundments located directly north of the synthetically lined lagoons and two 4-acre unlined impoundments located at the northwest corner of the facility.</p> <p>The permittee shall submit a written report to NMED within seven days of any discharge to the unlined contingency stormwater impoundment(s) containing the date of the discharge, the size of the storm event that generated the discharge, and identifying which stormwater impoundment(s) received the discharge. [20.6.2.3107 NMAC]</p> |

| | |
|------------|---|
| <p>34.</p> | <p>In the event that stormwater is discharged from the single synthetically lined combination wastewater/stormwater lagoon to the unlined contingency stormwater impoundment(s), the permittee shall perform the following maintenance as soon as practicable:</p> <ol style="list-style-type: none"> 1. Remove any manure solids accumulation from the unlined contingency stormwater impoundments, and store, manage, and remove from the facility accumulated manure solids in accordance with this Discharge Permit; and 2. Re-grade the bottom of the impoundment(s) to uniform grade and elevation to ensure uniform distribution of future flow events. Finished elevations within the bottom area of the impoundment shall not vary more than +/- 0.2 ft. <p>[20.6.2.3107 NMAC]</p> |
| <p>35.</p> | <p>In the event that information available to NMED indicates that a well(s) is not appropriately constructed to effectively monitor ground water quality, contains insufficient water to allow the collection of representative ground water samples, or is not completed in a manner that is protective of ground water quality, the permittee shall install a replacement well(s) within 90 days of notification from NMED. The well location(s) shall be approved by NMED prior to installation and completed in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008. Construction and lithologic logs shall be submitted to NMED within 30 days of well completion.</p> <p>Upon completion of the new monitoring well(s), the old monitoring well(s) requiring replacement shall be properly plugged and abandoned. The well(s) shall be plugged and abandoned in accordance with the abandonment details in the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008, and any applicable local, state, and federal regulations. Documentation describing the plugging and abandonment procedures, including photographic documentation, shall be submitted to NMED within 30 days of completed well abandonment. [20.6.2.3107 NMAC]</p> |
| <p>36.</p> | <p>In the event that ground water flow information obtained pursuant to this Discharge Permit indicates that a monitoring well(s) was not installed hydrologically downgradient of the intended discharge location(s), the permittee shall install a replacement well(s) within 90 days of notification from NMED. The well location(s) shall be approved by NMED prior to installation and completed in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008. Construction and lithologic logs shall be submitted to NMED within 30 days of well completion. [20.6.2.3107 NMAC]</p> |
| <p>37.</p> | <p>In the event NMED or the permittee identifies any other failures of the Discharge Permit or system not specifically noted herein, NMED may require the permittee to develop for NMED approval contingency plans and schedules to cope with the failures. [20.6.2.3107.A(10) NMAC]</p> |

CLOSURE PLAN

| # | Terms and Conditions |
|-----|---|
| 38. | <p>Upon closure of the facility, the permittee shall perform the following closure measures:</p> <ul style="list-style-type: none"> a) Remove all manure solids from the facility and transfer offsite for proper disposal in accordance with any applicable local, state, and federal regulations or requirements. b) Empty lagoons and impoundments of all wastewater and manure solids. c) Perforate or remove the lagoon liners and re-grade the lagoons with clean fill to blend with surface topography and prevent ponding. d) Re-grade the contingency stormwater impoundments to blend with surface topography and prevent ponding. e) Complete the installation of all monitoring wells as required by this Discharge Permit. f) Continue ground water monitoring as required by this Discharge Permit for two years after closure to confirm the absence of ground water contamination. If monitoring results show that the ground water standards in Section 20.6.2.3103 NMAC are being violated, the permittee shall implement the contingency plan required by this Discharge Permit. g) Following notification from NMED that post-closure monitoring may cease, the permittee shall plug and abandon the monitoring well(s) in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008. <p>When all post-closure requirements have been met, the permittee may request to terminate the Discharge Permit. [20.6.2.3107.A(11) NMAC]</p> |

GENERAL TERMS AND CONDITIONS

| # | Terms and Conditions |
|-----|--|
| 39. | <p>RECORD KEEPING - The permittee shall maintain at its facility a written record of all data and information related to field measurements, sampling, and analysis conducted pursuant to this Discharge Permit. The following information shall be recorded and shall be made available to NMED upon request:</p> <ul style="list-style-type: none"> a) The dates, exact place and times of sampling or field measurements; b) The name and job title of the individuals who performed each sample collection or field measurement; c) The date of the analysis of each sample; d) The name and address of the laboratory and the name and job title of the person that performed the analysis of each sample; e) The analytical technique or method used to analyze each sample or take each field measurement; f) The results of each analysis or field measurement, including raw data; g) The results of any split sampling, spikes or repeat sampling; and h) A description of the quality assurance and quality control procedures used. <p>[20.6.2.3107.A NMAC]</p> |

| | |
|-----|--|
| 40. | RECORD KEEPING - The permittee shall maintain a written record of any spills, seeps, and/or leaks of effluent, and of leachate and/or process fluids not authorized by this Discharge Permit. [20.6.2.3107.A NMAC] |
| 41. | RECORD KEEPING - The permittee shall maintain a written record of the operation, maintenance, and repair of all facilities/equipment used to treat, store or dispose of wastewater; to measure flow rates, to monitor water quality, or to collect other data required by this Discharge Permit. This record shall include repair, replacement or calibration of any monitoring equipment and repair or replacement of any equipment used in the permittee's waste or wastewater treatment and disposal system. [20.6.2.3107.A NMAC] |
| 42. | RECORD KEEPING - The permittee shall maintain a written record of the amount of wastewater, effluent, leachate or other wastes discharged pursuant to this Discharge Permit. [20.6.2.3107.A NMAC] |
| 43. | RECORD KEEPING - The permittee shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Discharge Permit, and records of all data used to complete the application for this Discharge Permit for a period of at least five years from the date of the sample collection, measurement, report or application. This period may be extended by request of the Secretary at any time. [20.6.2.3107.A NMAC] |
| 44. | INSPECTION and ENTRY - The permittee shall allow the Secretary or an authorized representative, upon the presentation of credentials, to: a) Enter at regular business hours or at other reasonable times upon the permittee's premises or other location where records must be kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation. b) Inspect and copy, during regular business hours or at other reasonable times, any records required to be kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation. c) Inspect, at regular business hours or at other reasonable times, any facility, equipment (including monitoring and control equipment or treatment works), practices or operations regulated or required under this Discharge Permit, or under any federal or WQCC regulation. d) Sample or monitor, at reasonable times for the purpose of assuring compliance with this Discharge Permit or as otherwise authorized by the New Mexico Water Quality Act, any effluent, water contaminant, or receiving water at any location before or after discharge. [20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA] |
| 45. | INSPECTION and ENTRY - Nothing in this Discharge Permit shall be construed as limiting in any way the inspection and entry authority of NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation. [20.6.2.3107 NMAC, 74-6-9(B) & (E) WQA] |
| 46. | DUTY to PROVIDE INFORMATION - The permittee shall furnish to NMED, within a reasonable time, any documents or other information which it may request to determine whether cause exists for modifying, terminating and/or renewing this Discharge Permit or to determine compliance with this Discharge Permit. The permittee shall also furnish to NMED, upon request, copies of documents required to be kept by this Discharge Permit. |

| | |
|-----|---|
| | [20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA] |
| 47. | SPILLS, LEAKS, and OTHER UNAUTHORIZED DISCHARGES - This Discharge Permit authorizes only those discharges specified herein. Any unauthorized discharges violate Section 20.6.2.3104 NMAC and must be reported to NMED and remediated as required by Section 20.6.2.1203 NMAC. [20.6.2.1203 NMAC] |
| 48. | MODIFICATIONS and/or AMENDMENTS - The permittee shall notify NMED of any changes to the permittee's wastewater treatment and disposal system, including any changes in the wastewater flow rate or the volume of wastewater storage, or of any other changes to operations or processes that would result in any significant change in the discharge of water contaminants. The permittee shall obtain NMED's approval, as a modification to this Discharge Permit pursuant to Subsections E, F, or G of 20.6.2.3109 NMAC, prior to any increase in the quantity discharged, or any increase in the concentration of water contaminants discharged, above those levels approved in this Discharge Permit. [20.6.2.3107.C NMAC] |
| 49. | CIVIL PENALTIES - Any violation of the requirements and conditions of this Discharge Permit, including any failure to allow NMED staff to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject the permittee to a civil enforcement action. Pursuant to WQA 74-6-10(A) and (B), such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, modifying or terminating the Discharge Permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to WQA 74-6-10(C) and 74-6-10.1, civil penalties of up to \$15,000 per day of noncompliance may be assessed for each violation of the WQA 74-6-5, the WQCC Regulations, or this Discharge Permit, and civil penalties of up to \$10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation, standard, or order adopted pursuant to such other provision. In any action to enforce this Discharge Permit, the permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. [74-6-10 WQA, 74-6-10.1 WQA] |
| 50. | CRIMINAL PENALTIES - Any person who knowingly violates or knowingly causes or allows another person to: <ol style="list-style-type: none"> 1) make any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or required to be maintained under the WQA; 2) falsify, tamper with or render inaccurate any monitoring device, method or record required to be maintained under the WQA; or 3) fail to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation, is subject to felony charges and shall be sentenced in accordance with the provisions of Section 31-18-15 NMSA 1978. [74-6-10.2(A-F) WQA] |
| 51. | COMPLIANCE WITH OTHER LAWS - Nothing in this Discharge Permit shall be construed in any way as relieving the permittee of the obligation to comply with all applicable federal, state, and local laws, regulations, permits or orders. [20.6.2 NMAC] |
| 52. | RIGHT to APPEAL - The permittee may file a petition for review before the WQCC on this Discharge Permit. Such petition shall be in writing to the WQCC within thirty (30) |

| | |
|-----|---|
| | days of the receipt of this Discharge Permit. Unless a timely petition for review is made, the decision of NMED shall be final and not subject to judicial review. [74-6-5(O) WQA] |
| 53. | TRANSFER of DISCHARGE PERMIT - Prior to the transfer of any ownership, control, or possession of this permitted facility or any portion thereof, the permittee shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy of this Discharge Permit with the notice. The permittee shall deliver or send by certified mail to NMED a copy of the notification and proof that such notification has been received by the proposed transferee. [20.6.2.3111 NMAC] |
| 54. | TERM - Pursuant to the WQA 74-6-5(I) and Subsection H of 20.6.2.3109 NMAC, the term of this Discharge Permit is seven years from its effective date or five years from the date the discharge commences, whichever occurs first. To renew this Discharge Permit, the permittee must submit an application for renewal at least 180 days before the termination date. [20.6.2.3109.H NMAC, 74-6-5(I) WQA] |
| 55. | Payment of permit fees is due at the time of Discharge Permit approval. Permit fees shall be paid in a single payment or shall be paid in equal installments on a yearly basis over the term of the Discharge Permit. Single payments shall be remitted to NMED no later than 30 days after the Discharge Permit effective date. Initial installment payments shall be remitted to NMED no later than 30 days after the Discharge Permit effective date; subsequent installment payments shall be remitted to NMED no later than the anniversary of the Discharge Permit effective date. An approved Discharge Permit shall be suspended or terminated if the facility fails to remit an installment payment by its due date. [20.6.2.3114.F NMAC, 74-6-5(K) WQA] |

EFFECTIVE DATE: September 24, 2010

EXPIRATION DATE: Five years from the date the discharge commences, or seven years from the effective date of this Discharge Permit, whichever occurs first.



MARCY LEAVITT
Director, Water and Waste Management Division
New Mexico Environment Department