

GROUND WATER DISCHARGE PERMIT RENEWAL AND MODIFICATION

Town of Clayton-Wastewater Treatment Facility, DP-229

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this Discharge Permit Renewal and Modification (Discharge Permit), DP-229, to the Town of Clayton (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 the Town of Clayton-Wastewater Treatment Facility 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 500,000 gallons per day (gpd) of wastewater is discharged to the Town of Clayton's municipal wastewater treatment facility. Wastewater flows through a manual bar screen and comminutor to an Imhoff Tank for solids settling. Clarified wastewater is conveyed to 2 aerated lagoons, in parallel, with floating baffles. Treated wastewater then gravity flows to 2 facultative lagoons in series and is used to irrigate 1,060 acres of farmland. All lagoons have bentonite bottoms and concrete sides. Sludge is periodically withdrawn from the Imhoff Tank and discharged to sludge drying beds prior to surface disposal to 4 acres at the wastewater treatment facility site. Septage haulers are also allowed to discharge to one of the sludge drying beds. The modification consists of upgrades to the wastewater treatment system and increasing the land application area from 160 acres to 1,060 acres. 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 the south end of Princeton Avenue in Clayton in Sections 1 & 2, T25N, R35E, Union County. The land application areas are located in Section 1, T25N, R35E and Sections 6 & 7, T25N, R36E, Union County. Ground water most likely to be affected is at a depth of approximately 56 feet and has a total dissolved solids concentration of approximately 690 milligrams per liter.

The original Discharge Permit was issued on August 20, 1982 and subsequently renewed and/or modified on July 8, 1987, July 24, 1992, January 7, 1998, and March 24, 2003. The permittee's application consists of the materials submitted by Mayor Garth Boyce dated October 30, 2007 and additional information received February 19, 2008, August 19, 2008 and March 24, 2009. 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 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 abbreviations may be used in this Discharge Permit:

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

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. The permittee is discharging effluent or leachate from the facility 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. The permittee is discharging effluent or leachate from the facility 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 the facility 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 the permittee and are enforceable by NMED. The permittee is authorized 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 are not violated. [20.6.2.3101 NMAC, 20.6.2.3103 NMAC]
3.	The permittee is authorized to treat up to 500,000 gallons per day of wastewater at the Town of Clayton’s municipal wastewater treatment facility. Wastewater flows through a manual bar screen and comminutor to an Imhoff Tank for solids settling. Clarified wastewater is conveyed to 2 lagoons (Lagoon #1 and Lagoon #2), in parallel, with bentonite bottoms and concrete sides. Both lagoons have a floating baffle and a floating aerator at the clarified wastewater inlet. The treated wastewater gravity flows to 2 facultative lagoons (Lagoon #3 and Lagoon #4), in series, with bentonite bottoms and concrete sides. Reclaimed wastewater from the treatment facility is used to irrigate 1,060 acres of farmland. Sludge is periodically withdrawn from the Imhoff Tank and discharged to sludge drying beds prior to surface disposal to 4 acres at the wastewater treatment facility site. The permittee is authorized to allow septage haulers to discharge domestic septage to one of the sludge drying beds. [20.6.2.3104 NMAC, 20.6.2.3106 NMAC]
4.	The permittee shall maintain the Imhoff Tank with the following schedule: a) Remove and dispose of accumulations in the inlet and outlet channels on a daily basis; b) “Churn” scum in the gas vents on a daily basis; c) Remove scum that will not settle from the gas vents and dispose of in sludge drying beds on a daily basis; d) Remove all floating solids from the sediment chamber and dispose of in sludge drying beds on a daily basis; e) Squeegee submerged interior surface of the chamber sides, ends and sloping walls to remove solids adhered to them on a daily basis; f) Clean the sedimentation chamber slot of obstructions with a “trace chain” on a daily basis; and g) Measure the sludge blanket in the digestion compartment hoppers on a weekly basis. If the sludge level is within 18 inches from the slot located in the bottom of the sedimentation chamber, the permittee shall draw sludge from the hopper and discharge it to the sludge drying beds. A log of Imhoff Tank inspections, preventive maintenance and sludge removal shall be kept on site and available for inspection by NMED. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]

5.	Reclaimed wastewater discharged from Lagoon #4 shall not exceed the following limitation: Total Nitrogen: 20 mg/L. [20.6.2.3109 NMAC]																				
6.	<p>Reclaimed wastewater discharged from Lagoon #4 shall not exceed the following limitations:</p> <table border="1"> <thead> <tr> <th>Test</th> <th>30-day geometric mean</th> <th>30-day average</th> <th>maximum</th> </tr> </thead> <tbody> <tr> <td>Fecal coliform bacteria:</td> <td>1,000 Org/100 mL</td> <td>N/A</td> <td>5,000 Org/100 mL</td> </tr> <tr> <td>BOD₅:</td> <td>N/A</td> <td>30 mg/L</td> <td>45 mg/L</td> </tr> <tr> <td>TSS:</td> <td>N/A</td> <td>75 mg/L</td> <td>90 mg/L</td> </tr> <tr> <td>TRC:</td> <td>N/A</td> <td>Monitor Only</td> <td>Monitor Only</td> </tr> </tbody> </table> <p>[20.6.2.3109 NMAC]</p>	Test	30-day geometric mean	30-day average	maximum	Fecal coliform bacteria:	1,000 Org/100 mL	N/A	5,000 Org/100 mL	BOD ₅ :	N/A	30 mg/L	45 mg/L	TSS:	N/A	75 mg/L	90 mg/L	TRC:	N/A	Monitor Only	Monitor Only
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7.	<p>The permittee shall apply reclaimed wastewater directly to up to 1,060 acres of irrigated farmland. Wastewater shall be applied to cropland under cultivation in such a manner that the amount of total nitrogen in the combined application of wastewater and chemical fertilizer shall not exceed by more than 25% the amount reasonably expected to be taken up and removed by the harvested crops on an annual basis. Nitrogen content shall not be adjusted to account for volatilization or mineralization processes. Wastewater shall be distributed evenly over the entire area of application. Excessive ponding shall be prevented.</p> <p>[20.6.2.3109 NMAC]</p>																				
8.	<p>Within 30 days of the effective date of this Discharge Permit (by DATE), the permittee shall submit record drawings of the wastewater treatment facility upgrades including; the floating aerators at the clarified wastewater discharge location to both aerated lagoons, the floating baffles in both aerated lagoons and the treated wastewater recirculation system from the final lagoon to the aeration lagoons. A licensed New Mexico professional engineer shall certify the record drawings of the wastewater treatment system.</p> <p>[20.6.2.3109 NMAC]</p>																				
9.	<p>Within 180 days of the effective date of this Discharge Permit (by DATE), the permittee shall cease discharging to the unlined lagoon located on private land east of Lagoon #4 of the wastewater treatment system. After [DATE], no unauthorized discharges or impoundments of reclaimed wastewater shall occur and discharges from Lagoon #4 shall be utilized directly for irrigation.</p> <p>[20.6.2.3109 NMAC]</p>																				
10.	<p>Within 180 days of the effective date of this Discharge Permit (by DATE), the permittee shall install the infrastructure necessary to properly transfer, meter, distribute and apply reclaimed wastewater to a minimum of 150 acres of farmland authorized to be irrigated under this Discharge Permit. This includes the installation of a totalizing flow meter to record the volume of reclaimed wastewater applied to the farmland, the installation of transfer piping and the installation of an irrigation distribution system that can effectively apply reclaimed wastewater to the farmland. Written confirmation documenting that the flow meter, transfer piping and irrigation system have been installed shall be submitted to NMED by [DATE].</p> <p>[20.6.2.3109 NMAC]</p>																				

11.	<p>The permittee shall maintain fences around the wastewater treatment facility to control public access. The fences shall be constructed in a manner which prevents access by the general public and animals such as dogs (e.g., chain link, field fencing or locking lids) and shall be maintained throughout the term of this Discharge Permit. [20.6.2.3109 NMAC]</p>
12.	<p>The permittee shall maintain signs at the facility entrance and other areas where public contact is possible indicating that the water is not potable. All signs shall remain visible and legible for the term of this Discharge Permit. [20.6.2.3109 NMAC]</p>
13.	<p>Within 30 days of the effective date of this Discharge Permit (by DATE), the permittee shall post signs in English and Spanish at above ground areas receiving reclaimed wastewater. The signs shall be posted at the entrance and/or at other locations where public access may occur and shall state: NOTICE: THIS AREA IS IRRIGATED WITH RECLAIMED WASTEWATER - DO NOT DRINK. AVISO: ESTA ÁREA ESTÁ REGADA CON AGUAS NEGRAS RECOBRADAS - NO TOMAR. Alternate wording and/or graphics may be submitted for NMED approval. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]</p>
14.	<p>Within 60 days of the effective date of this Discharge Permit (by DATE), the permittee shall measure the thickness of the sludge blanket in all lagoons. If sludge accumulation exceeds one-third of the maximum liquid depth of a lagoon at any location within any lagoon, the permittee shall remove the sludge to a depth of less than six inches throughout the lagoon in a manner that is protective of the lagoon liner. Removed sludge shall be contained, transported, and disposed of in accordance with all local, state, and federal (40 CFR Part 503) regulations. A report detailing the sludge depth measurement and disposal of excess accumulated solids (if any disposal occurs) shall be submitted to NMED within 180 days of the effective date of this Discharge Permit (by DATE). [20.6.2.3109 NMAC]</p>
15.	<p>The lagoon liners shall be maintained in such a manner as to avoid conditions which could affect the structural integrity of the lagoons and/or lagoon liners. Such conditions include, but are not limited to:</p> <ul style="list-style-type: none"> • Erosion damage; • Animal activity/damage; • The presence of vegetation, such as; aquatic plants, weeds, woody shrubs or trees growing within five feet of the lagoon edge or within the lagoon itself; • Evidence of seepage; • Evidence of berm subsidence; and/or • The presence of large pieces or large quantities of debris in the lagoon. <p>The permittee shall visually inspect the lagoons and surrounding berms on a monthly basis to ensure proper maintenance. Vegetation growing around the lagoons shall be routinely controlled by mechanical removal in a manner that is protective of the lagoon liner. Any evidence of damage to the lagoon berm or liner shall be reported to NMED immediately upon discovery. [20.6.2.3107 NMAC]</p>
16.	<p>The permittee shall maintain a minimum of two feet of freeboard between the liquid level in the lagoons and the top elevation of the lagoon liners at all times. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]</p>

17.	The permittee shall utilize operators, certified by the State of New Mexico at the appropriate level, to operate the wastewater collection, treatment and disposal systems. All operations and maintenance of all or any part of the wastewater system shall be performed by, or under the direct supervision of, a certified operator. [20.7.4 NMAC]
18.	<p>The permittee shall meet the following general requirements for above ground use of reclaimed domestic wastewater:</p> <ul style="list-style-type: none"> a) The permittee shall maintain signs in English and Spanish at above ground areas receiving reclaimed wastewater. All signs shall remain visible and legible for the term of this Discharge Permit. b) The reclaimed wastewater systems shall have no direct or indirect cross connections with potable water systems pursuant to the latest revision of the New Mexico Plumbing and Mechanical Code. c) Above ground use of reclaimed wastewater shall not result in excessive standing or pooling of wastewater, and shall be applied at the appropriate consumptive water use rate. Irrigation shall not be conducted at times when the receiving area is saturated or frozen. d) The discharge of reclaimed wastewater shall be confined to the area designated and approved for receiving the wastewater. e) All water supply wells within 200 feet of a wetted irrigation area shall have adequate well head construction and irrigation shall be managed to ensure protection of ground water quality. f) All existing accessible portions of the reclaimed wastewater system shall be colored purple or clearly labeled as being part of a reclaimed wastewater distribution system. All piping, valves and outlets that are installed during the term of this Discharge Permit shall be color-coded in purple pursuant to the latest revision of the New Mexico Plumbing and Mechanical Code to differentiate piping or fixtures used to convey reclaimed wastewater from piping or fixtures used for potable or other water. All valves, outlets, and sprinkler heads used in reclaimed wastewater systems shall be of a type that can only be operated by authorized personnel. <p>[20.6.2.3109 NMAC]</p>
19.	<p>The permittee shall meet the following setbacks, access restrictions and equipment requirements for spray irrigation using Class 3 reclaimed domestic wastewater:</p> <ul style="list-style-type: none"> a) A minimum 500-foot set-back shall be maintained between any dwellings or occupied establishments and the edge of any area receiving reclaimed wastewater. b) Irrigation shall be postponed at times when windy conditions may result in drift of reclaimed wastewater outside the designated area of application. c) Access to the irrigated area shall be restricted by perimeter fencing using 4-strand barbed wire and locking gate or other NMED approved access controls. d) The public shall be excluded from entering the area during times when the reclaimed wastewater is being applied. e) The spray irrigation system shall utilize only low trajectory spray nozzles. <p>[20.6.2.3109 NMAC]</p>
20.	Prior to discharging to any land application distribution system, the permittee shall install a backflow prevention method to protect all wells connected to the land application distribution system from contamination by reclaimed wastewater. Backflow prevention

	shall be achieved by installation of a physical air gap between the discharge pipe and the liquid surface at least twice the diameter of the discharge pipe, a reduced pressure principal valve assembly or other method approved by NMED. With the exception of a physical air gap, backflow prevention devices shall be tested by a certified backflow assembly tester at the time of installation, repair or relocation and at least on an annual basis thereafter. All devices shall be maintained functional at all times. Inspection and maintenance records for the backflow prevention device shall be kept on-site and available for NMED review upon request. [20.6.2.3109 NMAC]
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MONITORING, REPORTING, AND OTHER REQUIREMENTS

#	Terms and Conditions
21.	The permittee shall conduct the following monitoring, reporting, and other requirements listed below. [20.6.2.3107 NMAC]
22.	<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>
23.	<p>The permittee shall submit quarterly monitoring reports to NMED for the most recently completed quarterly period by the 1st of February, May, August and November each year.</p> <p>Quarterly monitoring shall be performed during the following periods:</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>.</p> <p>[20.6.2.3107 NMAC]</p>
24.	The permittee shall measure the totalized, daily average and peak volume of clarified wastewater discharged from the Imhoff Tank to the treatment lagoons each month using a primary measuring device equipped with head sensing, totalizing and chart recording/data

	<p>logging mechanisms. The totalized, daily average and peak discharge volumes for each month shall be submitted to NMED in the quarterly monitoring reports. The flow meter shall be calibrated against the primary measuring device to within +/- 10% of actual flow and kept operational at all times. [20.6.2.3107 NMAC]</p>
<p>25.</p>	<p>The permittee shall measure and record all discharges from Lagoon #4 to each land application area using a totalizing flow meter on the transfer line between Lagoon #4 and the land application areas on a monthly basis. The permittee shall maintain a daily log showing the location of each discharge, totalizing meter readings immediately prior to and after each discharge, and the calculated total volume of each discharge. A summary of the log entries and the calculated monthly discharge volumes for each location in the land application area shall be submitted to NMED in the quarterly monitoring reports. The volumes discharged to each location each month, calculated based upon the log, shall be used to calculate nitrogen loading on the LADS. The flow meter shall be calibrated to within +/- 10% of actual flow and kept operational at all times. [20.6.2.3107.A(1) NMAC, 20.6.2.3109.C(3) NMAC]</p>
<p>26.</p>	<p>Within 90 days of the effective date of this Discharge Permit (by DATE), the permittee shall install 2 new monitoring wells. The permittee shall install:</p> <ul style="list-style-type: none"> • One monitoring well (MW-4) located 20 to 50 feet hydrologically downgradient of the present land application area; and • One monitoring well (MW-5) located 20 to 50 feet hydrologically downgradient of the future land application area. <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>
<p>27.</p>	<p>Following well development and no more than five days after installation of the new monitoring wells required by this Discharge Permit, the permittee shall sample ground water in the new wells and analyze the samples for NO₃-N, TKN, TDS, and Cl. The permittee shall sample:</p> <ul style="list-style-type: none"> • MW-4, intended to be located hydrologically downgradient of the present land application area; and • MW-5, intended to be located hydrologically downgradient of the future land application area. <p>Ground water sample collection, preservation, transport and analysis 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; c) obtain samples from the well for analysis; d) properly prepare, preserve and transport samples; and e) analyze samples in accordance with the methods authorized in this Discharge Permit.

	<p>Depth-to-water measurements, analytical results, including the laboratory QA/QC summary report, and a facility layout map showing the location and number of each well shall be submitted to NMED within 45 days of the installation of the monitoring wells. [20.6.2.3107 NMAC]</p>
28.	<p>Within 120 days of the effective date of this Discharge Permit (by DATE), 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 (by DATE). [20.6.2.3107 NMAC]</p>
29.	<p>The permittee shall perform quarterly ground water sampling in 5 monitoring wells and analyze the samples for NO₃-N, TKN, TDS, and Cl. The permittee shall sample:</p> <ul style="list-style-type: none"> • MW-1, intended to be located hydrologically downgradient of Lagoon #4; • MW-2, intended to be located hydrologically downgradient of Lagoon #3; • MW-3, intended to be located hydrologically upgradient of the facility (approximately 300 feet northwest of facility); • MW-4, intended to be located hydrologically downgradient of the present land application area; and • MW-5, intended to be located hydrologically downgradient of the future land application area. <p>Ground water sample collection, preservation, transport and analysis 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; c) obtain samples from the well for analysis; d) properly prepare, preserve and transport samples; and e) analyze samples in accordance with the methods authorized in this Discharge Permit. <p>Depth-to-water measurements, analytical results, including the laboratory QA/QC summary report, and a facility layout map showing the location and number of each well shall be submitted to NMED in the quarterly monitoring reports. [20.6.2.3107 NMAC]</p>
30.	<p>The permittee shall sample reclaimed wastewater from the discharge of Lagoon #4 on a quarterly basis and analyze the samples for TKN, NO₃-N, TDS and Cl. Analytical results shall be submitted to NMED in the quarterly monitoring reports. [20.6.2.3107 NMAC]</p>
31.	<p>The permittee shall perform the following analyses on reclaimed wastewater samples collected from the discharge of Lagoon #4 using the sampling method and frequency indicated:</p>

	<ul style="list-style-type: none"> • Fecal coliform bacteria: grab once per month; • BOD₅: grab sample once per month; • TSS: grab sample once per month; and • The permittee shall record TRC concentrations, if required, whenever fecal coliform samples are collected. <p>Analytical results and a copy of the log of TRC concentrations, if required, shall be submitted to NMED in the quarterly monitoring reports. [20.6.2.3107 NMAC]</p>
32.	<p>The permittee shall complete land application data sheets (LADS) quarterly that document the amount of nitrogen applied to each land application area. The LADS (copy enclosed) shall reflect the nitrogen concentration from the most recent wastewater analysis, the amount of chemical fertilizer applied, the actual acreage under irrigation and the measured discharge volumes for each month. The permittee shall also report crops grown, yields removed and nitrogen uptake values specific to the crops grown on the LADS. The LADS or a statement that no land application occurred shall be submitted to NMED in the quarterly monitoring reports. [20.6.2.3107 NMAC]</p>
33.	<p>The permittee shall keep a log of all additional fertilizer applied to each land application area. The log shall contain the date of fertilizer application, the type and nutrient concentration of the fertilizer, and the amount of fertilizer applied to each field. Information from the log shall be used to prepare the LADS. [20.6.2.3107 NMAC]</p>
34.	<p>Prior to domestic septage waste discharge to the sludge drying bed, the permittee shall monitor the odor and visual appearance of the waste to ensure that only domestic septage is discharged. On a manifest sheet, the permittee shall record the following information for each load of domestic septage waste discharged to the facility:</p> <ol style="list-style-type: none"> a) Date of disposal; b) Origin of waste; c) Hauling company; d) Signature of driver; e) Confirmation of inspection for acceptable waste type; f) Signature of person conducting the inspection; and g) Total volume discharged. <p>The manifest records shall be kept on site and available for inspection by NMED and used to produce a monthly summary. The monthly summary shall have the following information:</p> <ol style="list-style-type: none"> a) Date of each disposal for the month; b) Origin of waste; c) Driver's name; d) Hauling company; and e) Volume discharged in gallons. <p>All monthly summaries shall be submitted to NMED annually in the monitoring report due by February 1st each year. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]</p>
35.	<p>The permittee shall estimate and record the volume of sludge and septage waste discharged to the surface disposal area. A log, which records the estimated volume of sludge and septage waste discharged to the land application area, shall be submitted to NMED in the February 1st monitoring report. [20.6.2.3107(A)1 NMAC, 20.6.2.3109(H)1 NMAC]</p>

36.	Prior to annual surface disposal, the permittee shall collect a composite sludge sample from 2 locations in each drying bed and a composite septage waste sample from 2 locations in the septage waste drying bed and analyze the samples for NO ₃ -N and TKN. The results shall be reported in mg/Kg on a dry weight basis. Analytical results shall be submitted to NMED in the February 1 st monitoring report. [20.6.2.3107 NMAC]
37.	The permittee shall complete the Discharge Monitoring Report (DMR), for sludge, required under 40 CFR 503. Copies shall be submitted to NMED in the February 1 st monitoring report. [40.503.17 CFR, 74-6-5.E.1 Water Quality Act, 74-6-5.K Water Quality Act]

SPECIAL STUDY

#	Terms and Conditions
38.	The permittee shall submit a work plan for NMED approval within 60 days of the effective date of this Discharge Permit (by DATE). The work plan shall consist of a study to determine the source, nature and extent of the nitrate (NO ₃ -N) contamination evident in the monitoring well downgradient of Lagoon #3 (MW-2). The study shall be conducted by an individual with advanced training and experience in ground water hydrology. The study shall be completed and submitted to NMED (by DATE). [20.6.2.3107.A NMAC]

CONTINGENCY PLAN

#	Terms and Conditions
39.	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 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]
40.	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. Within 7 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]

41.	<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>
42.	<p>In the event that analytical results of a quarterly treated wastewater sample exceed the total nitrogen limitation set in this Discharge Permit, the permittee shall analyze another sample within 15 days to confirm the initial results. Upon confirmation that the limitation is being exceeded, the permittee shall enact the following contingency plan:</p> <ul style="list-style-type: none"> a) NMED shall be notified immediately that the contingency plan is being enacted. b) Wastewater sampling and analysis shall be done on a monthly basis. c) The permittee shall examine the operation and maintenance log, required under the Record Keeping section of this permit, for improper operational procedures. The permittee shall also conduct a physical inspection of the treatment system to detect abnormalities. Any abnormalities discovered shall be corrected. d) If analytical results from wastewater sampling continue to exceed the limitation, the permittee shall submit a corrective action plan for NMED approval to modify operational procedures and/or upgrade the treatment process to achieve the effluent limit. The plan shall be submitted within 90 days of the original confirmation of exceedance of the effluent limitation. The corrective action plan shall be implemented immediately upon NMED approval. <p>When analytical results from three consecutive months of wastewater sampling do not exceed the limitation, the permittee shall return to quarterly monitoring. [20.6.2.3107.A(10) NMAC]</p>
43.	<p>In the event that analytical results of a reclaimed domestic wastewater sample exceed any of the maximum limitations for BOD₅, TSS, or fecal coliform bacteria set by this Discharge Permit, the permittee shall re-sample within 24 hours of becoming aware of the exceedance to confirm the initial results. If the exceedance of any of the maximum limitations is confirmed, or if any of the 30-day average limitations is exceeded, the permittee shall enact the following contingency plan:</p> <ul style="list-style-type: none"> a) NMED shall be notified immediately that the contingency plan is being enacted. b) The permittee shall examine the operation and maintenance log, required under the Record Keeping section of this Discharge Permit, for improper operational procedures. The permittee shall also conduct a physical inspection of the treatment system to detect abnormalities. Any abnormalities discovered shall be corrected. <p>If a facility is required to enact the contingency plan more than two times in a calendar year, the permittee shall submit a corrective action plan for NMED approval to modify operational procedures and/or upgrade the treatment process to achieve consistent compliance with the maximum and 30-day average limitations. The plan shall be submitted within 60 days of the second occurrence and shall be implemented immediately upon NMED approval. Additional sampling of stored reclaimed wastewater prior to discharge to the land application area may be required as part of the corrective action plan. [20.6.2.3107.A(10) NMAC]</p>
44.	<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</p>

	<p>a manner that is protective of ground water quality, the permittee shall install a replacement well(s) within 90 days of notification from NMED. Replacement 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 replacement monitoring well(s), the 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>
45.	<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>
46.	<p>In the event that LADS show that the amount of nitrogen in wastewater and additional fertilizer applied annually exceeds by more than 25% the amount reasonably expected to be taken up and removed by the harvested crop(s), the permittee shall submit a corrective action plan for the reduction of nitrogen loading to the land application area. The plan shall be submitted to NMED for approval within 90 days of the end of the monitoring period in which the exceedance occurred. The corrective action plan shall be implemented within 30 days of NMED approval. [20.6.2.3107.A(10) NMAC]</p>
47.	<p>In the event that a minimum of two feet of freeboard cannot be maintained in the lagoons at all times, the permittee shall submit a corrective action plan for NMED approval within 30 days of the date when the two feet of freeboard limit was initially exceeded. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]</p>
48.	<p>In the event that inspection findings reveal significant damage likely to affect the ability of the lined lagoons to contain contaminants, the permittee shall submit a corrective action plan for the repair or replacement of the lagoon liners to NMED for approval within 30 days of discovery by the permittee or following notification from NMED that significant liner damage is evident. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]</p>

CLOSURE PLAN

#	Terms and Conditions
49.	<p>Upon closure of the facility, the permittee shall perform the following closure measures:</p> <ul style="list-style-type: none"> a) Complete the installation of all monitoring wells as required by this Discharge Permit. b) Remove or plug all lines leading to the Imhoff tank, lagoons, sludge drying beds and each land application area so that a discharge can no longer occur. c) Drain and/or evaporate all liquids from the lagoons, Imhoff tank, sludge drying beds and dispose of all sludge in accordance with all local, state, and federal (40 CFR Part 503) regulations. d) Perforate or remove the Imhoff tank and backfill with clean fill or sand to prevent ponding. e) Perforate or remove the lagoon and sludge drying bed liners and re-grade the lagoons and sludge drying beds with clean fill to blend with surface topography and prevent ponding. 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 wells 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
50.	<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;

	<p>g) The results of any split sampling, spikes or repeat sampling; and h) A description of the quality assurance and quality control procedures used. [20.6.2.3107.A NMAC]</p>
51.	<p>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]</p>
52.	<p>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]</p>
53.	<p>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]</p>
54.	<p>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]</p>
55.	<p>INSPECTION and ENTRY - The permittee shall allow the Secretary or an authorized representative, upon the presentation of credentials, to:</p> <ul style="list-style-type: none"> 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 WQA, any effluent, water contaminant, or receiving water at any location before or after discharge. <p>[20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA]</p>
56.	<p>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]</p>
57.	<p>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</p>

	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]
58.	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]
59.	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]
60.	PLANS and SPECIFICATIONS - The permittee shall file plans and specifications with NMED for the construction of a wastewater system and for proposed changes that will change substantially the quantity or quality of the discharge from the system. The permittee shall file plans and specifications prior to the commencement of construction. Changes to the wastewater system having a minor effect on the character of the discharge shall be reported as of January 1 and June 30 of each year to NMED. [20.6.2.1202 NMAC]
61.	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]
62.	CRIMINAL PENALTIES – Any person who knowingly violates or knowingly causes or allows another person to: 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

	<p>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]</p>
63.	<p>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]</p>
64.	<p>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]</p>
65.	<p>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]</p>
66.	<p>TERM - Pursuant to WQA 74-6-5(I) and Subsection H of 20.6.2.3109 NMAC, the term of this Discharge Permit is five years from its effective date. 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]</p>
67.	<p>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]</p>

EFFECTIVE DATE: <effective date>

EXPIRATION DATE: <expiration date>

WILLIAM C. OLSON
 Chief, Ground Water Quality Bureau
 New Mexico Environment Department