



MICHELLE LUJAN GRISHAM
GOVERNOR

JAMES C. KENNEY
CABINET SECRETARY

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

August 28, 2023

Jim Massengill, Public Works Director
City of Deming
P.O. Box 706
Deming, New Mexico 88031

RE: Draft Discharge Permit, DP-1957, City of Deming WWTP Sludge Disposal Site

Dear Jim Massengill:

The New Mexico Environment Department (NMED) hereby provides notice to the City of Deming of the proposed approval of Ground Water Discharge Permit, DP-1957, (copy enclosed), pursuant to Subsection H of 20.6.2.3108 NMAC. NMED will publish notice of the availability of the draft Discharge Permit in the near future for public review and comment and will forward a copy of that notice to you.

Prior to making a final ruling on the proposed Discharge Permit, NMED will allow 30 days from the date the public notice is published in the newspaper for any interested party, including the Discharge Permit applicant, i.e., yourself, to submit written comments and/or a request a public hearing. A hearing request shall set forth the reasons why a hearing is requested. NMED will hold a hearing in response to a timely hearing request if the NMED Secretary determines there is substantial public interest in the proposed Discharge Permit.

Please review the enclosed draft Discharge Permit carefully. Please be aware that this Discharge Permit may contain conditions that require the permittee to implement operational, monitoring or closure actions by a specified deadline.

Please submit written comments or a request for hearing to my attention at the address below, via email to avery.young@env.nm.gov or to pps.general@env.nm.gov, or directly into the NMED Public Comment Portal at <https://nmed.commentinput.com/comment/search>. If NMED does not receive written comments or a request for hearing during the public comment period, the draft Discharge Permit will become final.

Thank you for your cooperation during the review process. Feel free to contact me with any questions at (505) 699-8564.

Sincerely,

Avery Young, Domestic Waste Team Lead

Encl: Draft Discharge Permit, DP-1957

cc: Archie Heddleston, Public Works Superintendent, City of Deming, aheddleston@cityofdeming.org
Mohsen Karbakhsh, WSP USA E&I, mohsen.karbakhsh@wsp.com

SCIENCE | INNOVATION | COLLABORATION | COMPLIANCE

Ground Water Quality Bureau | 1190 Saint Francis Drive, PO Box 5469, Santa Fe, New Mexico 87502-5469
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**NEW MEXICO
ENVIRONMENT DEPARTMENT**

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Draft: August 28, 2023

**GROUND WATER QUALITY BUREAU
DISCHARGE PERMIT
Issued under 20.6.2 NMAC**

Facility Name:	City of Deming Wastewater Treatment Plant (WWTP) Sludge Disposal Site
Discharge Permit Number:	DP-1957
Facility Location:	4770 J Street Deming, NM
County:	Luna
Permittee:	City of Deming
Mailing Address:	Jim Massengill, Public Works Director P.O. Box 706 Deming, NM 88031
Facility Contact:	Archie Heddleston, Public Works Superintendent
Telephone Number/Email:	(575) 494-0831/aheddleston@cityofdeming.org
Permitting Action:	New
Permit Issuance Date:	DATE
Permit Expiration Date:	DATE (7 years from issuance date) or 5 years from commencement of discharge [20.6.2.3109.H(4) NMAC]
NMED Permit Contact:	Avery Young, Domestic Waste Team Lead
Telephone Number/Email:	(505) 699-8564/avery.young@env.nm.gov or pps.general@env.nm.gov

JUSTIN D. BALL
Chief, Ground Water Quality Bureau
New Mexico Environment Department

Date

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Discharge Permit Summary
New Mexico Environment Department Ground Water Quality Bureau Monitoring Well
Construction and Abandonment Guidelines, Revision 1.1, March 2011
Surface Disposal Data Sheet (SDDS-Sludge - <https://www.env.nm.gov/forms/>)

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this groundwater discharge permit (Discharge Permit or DP-1957) to the City of Deming (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) Ground and Surface Water Protection 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 City of Deming WWTP Sludge Disposal Site (Facility) in order to protect groundwater and those segments of surface water gaining from groundwater inflow for present and potential future use as domestic and agricultural water supply and other uses, and to protect public health. It is NMED's determination in issuing this Discharge Permit that the Permittee has met the requirements of Subsection C of 20.6.2.3109 NMAC. The Permittee is responsible for complying with the terms and conditions of this Discharge Permit pursuant to Section 20.6.2.3104 NMAC; failure to do so may result in enforcement action by NMED (20.6.2.1220 NMAC).

Described below are the activities that produce the discharge, the location of the discharge, and the quantity, quality and flow characteristics.

The Permittee discharges domestic wastewater treatment facility (WWTF) sludge at the Facility at a volume of up to 15,000 gallons per day (gpd) to a 120.8-acre land surface disposal area.

The discharge may contain water contaminants or toxic pollutants elevated above the standards of Section 20.6.2.3103 NMAC and is not subject to the exemption at Subsection 20.6.2.3105.A NMAC.

The Facility is located at 4770 J Street, Deming, in Sections 6 and 7, Township 23S, Range 08W, Luna County. A discharge at the Facility is mostly likely to affect groundwater at a depth of approximately 90 feet and having a total dissolved solids (TDS) concentration of approximately 596 milligrams per liter.

The application (i.e., discharge plan) associated with this Discharge Permit consists of the materials submitted by the Permittee dated October 20, 2022, and materials contained in the administrative record prior to issuance of this Discharge Permit. The Permittee shall manage this discharge in accordance with all conditions and requirements of this Discharge Permit.

NMED reserves the right to require a Discharge Permit Modification in the event NMED determines that the Permittee is or may be violating, or is likely to violate in the future, the requirements of 20.6.2 NMAC or the standards of Section 20.6.2.3103 NMAC. NMED reserves this right pursuant to Section 20.6.2.3109 NMAC. An NMED requirement to modify the Discharge

Permit may result from a determination by NMED that proposed disposal methods, structural controls or operations and management practices approved under this Discharge Permit are insufficiently protective of groundwater quality and human health. NMED reserves the right to require the Permittee to implement abatement of water pollution and remediate groundwater quality.

NMED 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.

This Discharge Permit may use the following acronyms and abbreviations.

Abbreviation	Explanation	Abbreviation	Explanation
CFR	Code of Federal Regulations	NMED	New Mexico Environment Department
CFU	colony forming unit	NMSA	New Mexico Statutes Annotated
Cl	chloride	NO ₃ -N	nitrate-nitrogen
EPA	United States Environmental Protection Agency	QA/QC	Quality Assurance/Quality Control
gpd	gallons per day	SDDS	Surface Disposal Data Sheet
LAA	land application area	TDS	total dissolved solids
LADS	Land Application Data Sheet(s)	TKN	total Kjeldahl nitrogen
lbs N/acre	pounds of nitrogen per acre	total nitrogen	= TKN + NO ₃ -N
mg/L	milligrams per liter	TS	total solids
mg/kg	milligram per kilogram	WQA	New Mexico Water Quality Act
mL	milliliters	WQCC	Water Quality Control Commission
NMAC	New Mexico Administrative Code	WWTF	Wastewater Treatment Facility

II. FINDINGS

In issuing this Discharge Permit, NMED finds the following.

1. The Permittee is discharging effluent or leachate from the Facility so that such effluent or leachate may move into groundwater of the State of New Mexico that has an existing concentration of 10,000 mg/L or less of TDS, within the meaning of Subsection A of 20.6.2.3101 NMAC, without exceeding standards of 20.6.2.3103 NMAC for any water contaminant.
2. The Permittee is discharging effluent or leachate from the Facility directly or indirectly

into groundwater pursuant to this Discharge Permit and Sections 20.6.2.3000 through 20.6.2.3114 NMAC.

3. The discharge from the Facility is not subject to any of the exemptions of Section 20.6.2.3105 NMAC.

III. AUTHORIZATION TO DISCHARGE

The Permittee is responsible for ensuring that discharges authorized by this Discharge Permit are consistent with the terms and conditions herein pursuant to 20.6.2.3104 NMAC.

- This Discharge Permit authorizes the Permittee to discharge up to 15,000 gpd of liquid, semi-solid, and solid Class B domestic WWTF sludge to surface disposal cells totaling 120.8 acres. This Discharge Permit authorizes the Permittee to achieve the Vector Reduction Attraction by utilizing option 10, which requires the Permittee to incorporate the Class B sludge into the soil within six hours by disking.

[20.6.2.3104 NMAC, Subsection C of 20.6.2.3106 NMAC, Subsection D of 20.6.2.3109 NMAC]

IV. CONDITIONS

NMED issues this Discharge Permit for the discharge of water contaminants subject to the following conditions.

A. OPERATIONAL PLAN

#	Terms and Conditions
1.	The Permittee shall implement the following operational plan to ensure compliance with Title 20, Chapter 6, Parts 2 and 4 NMAC. [Subsection C of 20.6.2.3109 NMAC]
2.	The Permittee shall operate in a manner that does not violate standards and requirements of Sections 20.6.2.3101 and 20.6.2.3103 NMAC. [20.6.2.3101 NMAC, 20.6.2.3103 NMAC, Subsection C of 20.6.2.3109 NMAC]

Operational Actions with Implementation Deadlines

#	Terms and Conditions
3.	<p>Prior to discharging domestic WWTF sludge to surface disposal cells, the Permittee shall install 18 to 24-inch berms around each individual cell to prevent surface water run-on and run-off. Documentation of berm installation shall consist of a narrative statement describing the berm locations and date-stamped photographs. The Permittee shall submit the documentation to NMED in the next required periodic monitoring report.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>
4.	<p>Prior to discharging to the Facility, the Permittee shall install fences around the entire disposal Facility to restrict access by the general public and animals. A minimum of a three-strand barbed wire fence including a locked gate shall surround the Facility. The Permittee shall maintain the fences to serve the stated purpose throughout the term of this Discharge Permit.</p> <p>Documentation of fence installation shall consist of a narrative statement describing the fences and gates and date-stamped photographs. The Permittee shall submit the documentation to NMED in the next required periodic monitoring report.</p> <p>[Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]</p>
5.	<p>Prior to discharging from to the Facility, the Permittee shall post the following signs at the following locations:</p> <ul style="list-style-type: none"> • Signs posted at the Facility entrance and every 500 feet along the Facility boundary that state: "Notice: Waste Disposal Area - KEEP OUT" and "Aviso: Área de Disposición - NO ENTRAR". • A sign posted at the entrance gate with the name of the Facility's contact person, office phone number of the contact person, emergency contact phone number for the Facility, and physical location of the Facility including township, range, and sections. • A sign at the boundary of each cell to identify the cell number and the waste type the Permittee is authorized discharge in the cell. <p>All signs shall be weatherproof and legible for the term of this Discharge Permit.</p> <p>The Permittee shall submit documentation demonstrating sign installation that consists of date stamped photographs to NMED in the next required periodic monitoring report.</p> <p>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC]</p>

#	Terms and Conditions
6.	<p>Prior to discharging to the Facility, the Permittee shall submit written notification to NMED stating the date the discharge is to commence.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection H of 20.6.2.3109 NMAC]</p>

Operational Actions – All Facility Types

#	Terms and Conditions
7.	<p>To prevent surface water run-on and run-off at the Facility, the Permittee shall maintain earthen berms surrounding the perimeter of the Facility and in between disposal cells that are a minimum of 24 inches above natural grade.</p> <p>In place of a berm across the Facility entrance, the Permittee shall construct and maintain shallow (minimum depth of six inches) stormwater diversion trenches parallel to and on each side of the Facility entrance gate. The Permittee shall maintain all berms and trenches until termination of this Discharge Permit and the Permittee has completed all closure actions required by conditions.</p> <p>The Permittee shall inspect the berms on a regular basis and after any major rainfall event and repair as necessary.</p> <p>The Permittee shall keep a log of the inspection findings and repairs that includes a date of the inspection and the name of the person responsible for the inspection and shall make the log available to NMED upon request.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>
8.	<p>This Discharge Permit authorizes the Permittee to accept domestic WWTF sludge. The Permittee may not receive or remediate any other waste types at the Facility.</p> <p>[Subsection C of 20.6.2.3109 NMAC]</p>
9.	<p>The Permittee shall not discharge liquid wastes during periods of precipitation or when surface soils are frozen or saturated. The Permittee may store wastes on-site in tanker trucks during these periods.</p> <p>[Subsection C of 20.6.2.3109 NMAC]</p>

Operational Actions – Domestic Wastewater Treatment Facility Sludge

#	Terms and Conditions
10.	<p>The Permittee shall apply liquid, semi-solid, and solid domestic wastewater treatment facility sludge to six surface disposal cells totaling 120.8 acres. The Permittee shall minimize ponding of liquid sludge. The Permittee shall achieve a manner of pathogen reduction requirements and vector attraction reduction (VAR) pursuant to 40 CFR Part 503. The Permittee shall select a VAR option from 40 CFR Part 503.33(b).</p> <p>The Permittee shall record on the manifest the date and time surface disposal occurred and the date, time, how they achieved pathogen reduction, and the VAR method utilized.</p> <p>[Subsection C of 20.6.2.3109 NMAC]</p>
11.	<p>The Permittee shall discharge domestic wastewater treatment facility sludge to the disposal cells such that the amount of total nitrogen discharged does not exceed 200 pounds per acre in any 12-month period. The Permittee shall distribute domestic wastewater treatment facility sludge evenly throughout the entire disposal area.</p> <p>[Subsection C of 20.6.2.3109 NMAC]</p>

B. MONITORING AND REPORTING

#	Terms and Conditions
12.	<p>The Permittee shall conduct the monitoring, reporting, and other requirements listed below in accordance with the monitoring requirements of this Discharge Permit.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>
13.	<p>METHODOLOGY – Unless otherwise specified by this Discharge Permit, or approved in writing by NMED, the Permittee shall use sampling and analytical techniques that conform with the references listed in Subsection B of 20.6.2.3107 NMAC.</p> <p>[Subsection B of 20.6.2.3107 NMAC]</p>
14.	<p>Semi-annual monitoring - The Permittee shall perform monitoring and other Permit required actions during the following periods and shall submit semi-annual reports to NMED by the following due dates:</p> <ul style="list-style-type: none"> • January 1st through June 30th – due by August 1st; and • July 1st through December 31st – due by February 1st.

#	Terms and Conditions
	[Subsection A of 20.6.2.3107 NMAC]
15.	<p>The Permittee shall retain on-site a manifest for each load of waste received. The manifest shall record the following information:</p> <ul style="list-style-type: none"> • date of receipt; • name of the hauling company; • name and address of the waste origin; • type of waste or description of contamination (differentiate between soil and water); • volume of waste; • confirmation of inspection for acceptable waste type; • signature of person conducting the inspection; and • cell identification and location within the cell where the Permittee discharged the waste. <p>The Permittee shall make the manifests available for inspection by NMED upon request. The Permittee shall submit a summary listing the information from each manifest for wastes received during the reporting period to NMED in the semi-annual monitoring reports.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection A 20.6.2.3107 NMAC]</p>

Monitoring Actions with Implementation Deadlines

#	Terms and Conditions
16.	<p>Prior to discharging from the Facility, the Permittee shall submit a written groundwater monitoring well location proposal for NMED review and approval. The proposal shall designate the installation locations of the monitoring wells required by Condition 17 of this Discharge Permit. The proposal shall include, at a minimum, the following information.</p> <ol style="list-style-type: none"> a) A map showing the proposed location of the monitoring wells in relation to the boundary of the source it is intended to monitor. b) A written description of the specific location proposed for the monitoring well including the distance (in feet) and direction of the monitoring well from the edge of the source it is intended to monitor. Examples include: 35 feet north-northwest of the northern berm of the synthetically lined impoundment; 45 feet due south of the surface disposal area; and 30 feet southeast of grease separator. c) A statement describing the groundwater flow direction beneath the Facility, and documentation and/or data supporting the determination.

#	Terms and Conditions
	<p>The Permittee must have NMED's approval of all monitoring well locations prior to their installation.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
17.	<p>Prior to discharging to the Facility, the Permittee shall install the following new monitoring wells.</p> <ol style="list-style-type: none"> a) One monitoring well (MW-18) located 20 to 50 feet hydrologically downgradient of the surface disposal area. b) One monitoring well (MW-19) located at an alternate location from MW-18 and 20 to 50 feet hydrologically downgradient of the surface disposal area. <p>The Permittee shall complete the wells in accordance with the attached Monitoring Well Guidance.</p> <p>Unless otherwise noted in this Discharge Permit, the requirement to install a monitoring well downgradient of a source is <u>not</u> contingent upon construction of the Facility, or discharge of wastewater from the Facility.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
18.	<p>Prior to discharging to the Facility and following the installation of the monitoring wells required by this Discharge Permit, the Permittee shall sample groundwater in the wells and analyze the samples for the following:</p> <ul style="list-style-type: none"> • TKN • Nitrate (CAS 14797-55-8) • TDS • Chloride (CAS 16887-00-6) • arsenic (CAS 7440-38-2) • cadmium (CAS 7440-43-9) • chromium (CAS 7440-47-3) • copper (CAS 7440-50-8) • lead (CAS 7439-92-1) • molybdenum (CAS 7439-98-7) • total mercury (nonfiltered) (CAS 7439-97-6) • nickel (CAS 7440-02-0) • selenium (CAS 7782-49-2) • zinc (CAS 7440-66-6) <p>Groundwater 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-most-shallow groundwater from the top of the well casing to the nearest one-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. e) Analyze samples in accordance with the methods authorized in this Discharge Permit.

#	Terms and Conditions
	<p>Within 45 days of the installation of the monitoring wells, the Permittee shall submit a well completion report to NMED. A well completion report shall at a minimum include, the Office of the State Engineer permit, well construction and lithologic logs, depth-to-most-shallow groundwater measurements, laboratory analytical data results, including the QA/QC summary report and Chain of Custody, and a Facility layout map showing the location and number of each well. The Permittee shall insure the well completion reports address each numbered item in the General Drilling and Well Specifications in the attached <i>Monitoring Well Guidelines</i>.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
19.	<p>Prior to discharging to the Facility, the Permittee shall perform a professional survey of all groundwater monitoring wells approved by NMED for Discharge Permit monitoring purposes. The survey shall be tied or referenced to a U.S. Geological Survey (USGS) or other permanent benchmark. Survey data shall include northing, easting and elevation to the nearest one-hundredth of a foot or shall be in accordance with the “Minimum Standards for Surveying in New Mexico” (12.8.2 NMAC). The survey shall bear the seal and signature of a licensed New Mexico professional surveyor (pursuant to the New Mexico Engineering and Surveying Practice Act and the rules promulgated under that authority).</p> <p>The Permittee shall utilize the survey to establish an elevation at the top-of-casing, with a permanent marking indicating the point of elevation.</p> <p>Depth-to-most-shallow groundwater shall be measured to the nearest one-hundredth of a foot in all surveyed wells [and referenced to mean sea level], and the data shall be used to develop a groundwater elevation contour, i.e., potentiometric surface, map showing the location of all monitoring wells and the direction and gradient of groundwater flow in the uppermost aquifer below the Facility. The Permittee shall submit the data and groundwater elevation contour map to NMED within 30 days of survey completion.</p> <p>[Subsection A of 20.6.2.3107 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]</p>

Groundwater Monitoring Conditions

#	Terms and Conditions
20.	<p>The Permittee shall perform semi-annual groundwater sampling in the following groundwater monitoring wells and analyze the samples for the constituents listed in Condition 18 of this Discharge Permit.</p>

#	Terms and Conditions
	<p>a) MW-18, located 20 to 50 feet hydrologically downgradient of the surface disposal area.</p> <p>b) MW-19, located at an alternate location from MW-18 and 20 to 50 feet hydrologically downgradient of the surface disposal area.</p> <p>The Permittee shall perform groundwater sample collection, preservation, transport, and analysis according to the following procedures.</p> <p>c) Measure the depth-to-most-shallow groundwater from the top of the well casing to the nearest one-hundredth of a foot.</p> <p>d) Purge three well volumes of water from the well prior to sample collection.</p> <p>e) Obtain samples from the well for analysis.</p> <p>f) Properly prepare, preserve, and transport samples.</p> <p>g) Analyze samples in accordance with the methods authorized in this Discharge Permit.</p> <p>The Permittee shall submit the depth-to-most-shallow groundwater measurements and the laboratory analytical data results including the QA/QC summary report and Chain of Custody for each well, to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
21.	<p>NMED shall have the option to perform downhole inspections of all groundwater monitoring wells identified in this Discharge Permit. NMED shall establish the inspection date and provide at least a 60-day notice to the Permittee by certified mail. The Permittee shall remove any existing dedicated pumps at least 48 hours prior to NMED inspection to allow adequate settling time of sediment agitated from pump removal.</p> <p>Should the Permittee decide to install a pump in a monitoring well without a dedicated pump, the Permittee shall notify NMED at least 90 days prior to pump installation so that NMED can schedule a downhole well inspection(s) prior to pump placement.</p> <p>[Subsections A and D of 20.6.2.3107 NMAC]</p>

Monitoring and Reporting - Domestic Wastewater Treatment Facility Sludge

#	Terms and Conditions
22.	<p>The Permittee shall analyze the domestic WWTF sludge disposed of at the Facility for the presence of perfluorinated chemicals (PFCs) in the following manner.</p>

#	Terms and Conditions
	<p>The Permittee shall on a single basis prior to discharging to the Facility collect six discrete grab samples from locations representative of the waste. The Permittee shall analyze the sample for the following PFCs:</p> <ul style="list-style-type: none"> • perfluorohexane sulfonic acid (PFHxS) (CAS 355-46-4) • perfluorooctane sulfonate (PFOS) (CAS 1763-23-1) • perfluorooctanoic acid (PFOA) (CAS 335-67-1) <p>The Permittee shall properly collect, prepare, preserve, transport, and analyze the sample in accordance with ASTM D7979-17, or an equivalent method that uses liquid chromatography and tandem mass spectrometry (LC/MS/MS). The reporting limit shall be low enough to identify whether the combined concentration of the perfluorinated chemicals is less than the Tap Water Screening Level identified in the <i>NMED Risk Assessment Guidance for Site Assessments and Investigations</i>, Table A-1 available on the NMED Hazardous Waste Bureau’s website under Guidance Documents. The Permittee shall take appropriate measures to avoid cross contamination while collecting and transporting the sample. The selected laboratory should be able to provide guidance that ensures sample integrity. The Permittee shall submit a copy of the laboratory report, including analytical results, the QA/QC summary, and the Chain of Custody to NMED within 30 days of laboratory report receipt.</p> <p>[Subsection H of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]</p>
23.	<p>The Permittee shall analyze domestic WWTF sludge disposed of at the Facility in the following manner:</p> <ul style="list-style-type: none"> • Record the volume in either gallons or metric tons of domestic wastewater treatment facility sludge discharged to each surface disposal cell during the reporting period. • Sample each domestic wastewater sludge type (solid, semi-solid, and liquid) transported to the surface disposal facility on a semi-annual basis and analyze the sample(s) for percent total solids (%TS). • Sample each domestic wastewater sludge type (solid, semi-solid, and liquid) transported to the surface disposal Facility on a semi-annual basis and analyze the samples for TKN and NO₃-N. The Permittee shall report the analytical results as mg/kg for TKN and NO₃-N (dry weight basis) for solid sludge and as mg/L for TKN and NO₃-N for liquid and semi-solid sludge. <p>The Permittee shall ensure the samples are properly prepared, preserved, transported, and analyzed in accordance with the methods authorized in this Discharge Permit. The Permittee shall submit records of the volume of the sludge discharged, percent total</p>

#	Terms and Conditions
	<p>solids, and analytical results, including the laboratory QA/QC summary, to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC and Subsection H of 20.6.2.3109]</p>
24.	<p>The Permittee shall complete a Surface Disposal Data Sheet for Sludge (SDDS-Sludge and SDDS-Liquid Sludge, attached) on a monthly basis to document the amount of nitrogen in domestic wastewater treatment facility sludge discharged to the surface disposal cell(s). The Permittee shall complete a SDDS for each cell designation and for each sludge type (solid, semi-solid, and liquid) disposed of in each cell. The SDDS shall reflect the most recent nitrogen analysis results and the average percent total solids for each sludge type for each cell. The Permittee shall not adjust the nitrogen content to account for volatilization or mineralization processes.</p> <p>The Permittee shall submit the SDDSs, or a statement that no surface disposal occurred within the cells, to NMED in the semi-annual monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC and Subsection H of 20.6.2.3109]</p>

C. CONTINGENCY PLAN

#	Terms and Conditions
25.	<p>In the event that groundwater monitoring indicates that groundwater exceeds a standard identified in Section 20.6.2.3103 NMAC in a monitoring well with no previous exceedances of the chemical constituent at the date of issuance of this Discharge Permit, the Permittee shall collect a confirmatory sample from the monitoring well within 15 days of receipt of the initial sampling results to confirm the initial analytical results to confirm those results.</p> <p>Within 60 days of confirmation of groundwater contamination, the Permittee shall submit to NMED a Corrective Action Plan (CAP) that proposes, at a minimum, contaminant source control measures and an implementation schedule. The Permittee shall implement the CAP as approved by NMED.</p> <p>Once this groundwater exceedance response condition is invoked, whether during the term of this Discharge Permit, or after the term of this Discharge Permit and prior to the completion of the Discharge Permit closure plan requirements, this condition shall apply until the Permittee has fulfilled the requirements of this condition and groundwater monitoring confirms for a minimum of eight (8) consecutive quarterly samples that groundwater does not exceed the standards of Section 20.6.2.3103 NMAC.</p>

#	Terms and Conditions
	<p>Violation of the groundwater standard beyond 180 days after the confirmation of groundwater contamination, may cause NMED to require the Permittee to abate water pollution consistent with the requirements and provisions of Section 20.6.2.4101, Section 20.6.2.4103, Subsections C and E of 20.6.2.4106, Section 20.6.2.4107, Section 20.6.2.4108 and Section 20.6.2.4112 NMAC.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]</p>
26.	<p>In the event that information available to NMED indicates that a well is not constructed in a manner consistent with the attachment titled (Monitoring Well Guidance); contains insufficient water to effectively monitor groundwater quality; or is otherwise not completed in a manner that is protective of groundwater quality, the Permittee shall install a replacement well(s) within 120 days following notification from NMED.</p> <p>The Permittee shall survey the replacement monitoring well(s) within 30 days following well completion.</p> <p>The Permittee shall install replacement wells at locations approved by NMED prior to installation and shall complete replacement wells in accordance with the attachment Monitoring Well Guidance. The Permittee shall submit well construction and lithologic logs survey data and a groundwater elevation contour map to NMED within 60 days following well completion.</p> <p>The Permittee shall properly plug and abandon a monitoring well requiring replacement upon completion of the replacement monitoring well. The Permittee shall complete the well plugging and abandonment, and shall document the abandonment procedures, in accordance with the attachment Monitoring Well Guidance and all applicable local, state, and federal regulations. The Permittee shall submit a copy of the well abandonment documentation to NMED within 60 days following the replacement well completion.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
27.	<p>In the event that groundwater flow information obtained pursuant to this Discharge Permit indicates that a monitoring well is not appropriately located, e.g., hydrologically downgradient of the discharge location it is intended to monitor, the Permittee shall install a replacement well within 120 days following notification from NMED. The Permittee shall survey the replacement monitoring well within 30 days following well completion.</p>

#	Terms and Conditions
	<p>In the event that groundwater flow information obtained pursuant to this Discharge Permit indicates that a monitoring well is not appropriately located, e.g., hydrologically downgradient of the discharge location it is intended to monitor, the Permittee shall install a replacement well within 120 days following notification from NMED. The Permittee shall survey the replacement monitoring well within 30 days following well completion.</p> <p>The Permittee shall install replacement wells at locations approved by NMED prior to installation and shall complete replacement wells in accordance with the attachment Monitoring Well Guidance. The Permittee shall submit construction and lithologic logs, survey data and a groundwater elevation contour map within 60 days following well completion.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
28.	<p>In the event that a SDDS for any cell shows that the amount of nitrogen applied in any 12-month period exceeds 200 pounds per acre, the Permittee shall propose the reduction of nitrogen loading to the affected cell by submitting a CAP to NMED for approval. The Permittee shall submit the CAP, including a schedule for completion of corrective actions, within 90 days following the end of the monitoring period in which the exceedance occurred. The Permittee shall initiate implementation of the CAP following approval by NMED.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>
29.	<p>In the event that a release occurs that is not authorized under this Discharge Permit (commonly known as a “spill”), the Permittee shall take measures to mitigate damage from the unauthorized discharge and initiate the notifications and corrective actions required in Section 20.6.2.1203 NMAC and summarized below.</p> <p>Within <u>24 hours</u> following discovery of the unauthorized discharge, the Permittee shall verbally notify NMED and provide the following information.</p> <ol style="list-style-type: none"> a) The name, address, and telephone number of the person or persons in charge of the Facility, as well as of the owner and/or operator of the Facility. b) The name and address of the Facility. c) The date, time, location, and duration of the unauthorized discharge. d) The source and cause of unauthorized discharge. e) A description of the unauthorized discharge, including its estimated chemical composition. f) The estimated volume of the unauthorized discharge. g) Any actions taken to mitigate immediate damage from the unauthorized discharge.

#	Terms and Conditions
	<p>Within <u>one week</u> following discovery of the unauthorized discharge, the Permittee shall submit written notification to NMED providing the information listed above and any pertinent updates.</p> <p>Within <u>15 days</u> following discovery of the unauthorized discharge, the Permittee shall submit a Corrective Action Plan (CAP) to NMED describing any corrective actions previously taken and corrective actions to be taken relative to the unauthorized discharge. The CAP shall include the following information.</p> <ul style="list-style-type: none"> a) A description of proposed actions to mitigate damage from the unauthorized discharge. b) A description of proposed actions to prevent future unauthorized discharges of this nature. c) A schedule for completion of proposed actions. <p>In the event that the unauthorized discharge causes or may with reasonable probability cause water pollution in excess of the standards and requirements of Section 20.6.2.4103 NMAC, and the water pollution will not be abated within 180 days after notice is required to be given pursuant to Paragraph (1) of Subsection A of 20.6.2.1203 NMAC, NMED may require the Permittee to abate water pollution pursuant to Sections 20.6.2.4000 through 20.6.2.4115 NMAC.</p> <p>The Permittee shall not construe anything in this condition as relieving them of the obligation to comply with all requirements of Section 20.6.2.1203 NMAC.</p> <p>[20.6.2.1203 NMAC]</p>
30.	<p>In the event that NMED or the Permittee identifies any failures of the discharge plan, i.e., the application, or this Discharge Permit not specifically noted herein, NMED may require the Permittee to submit a CAP and a schedule for completion of corrective actions to address the failure(s). Additionally, NMED may require a discharge permit modification to achieve compliance with 20.6.2 NMAC.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]</p>

D. CLOSURE PLAN

Closure Actions with Implementation Deadlines

#	Terms and Conditions
31.	<p>Within 120 days following the issuance date of this Discharge Permit (by DATE), the Permittee shall properly plug and abandon the following monitoring well.</p> <p>a) MW-6, located south of the surface disposal site.</p> <p>The Permittee shall abandon this monitoring well in accordance with the attached Monitoring Well Guidelines, and all applicable local, state, and federal regulations, including 19.27.4 NMAC.</p> <p>The Permittee shall submit documentation describing how the well abandonment procedures have been performed in accordance with the above-mentioned Guidelines. The Permittee shall submit the well abandonment documentation to NMED within 60 days of completion of well plugging activities.</p> <p>[Subsection A of 20.6.2.3107 NMAC, 19.27.4 NMAC]</p>

Permanent Facility Closure Conditions

#	Terms and Conditions
32.	<p>The Permittee shall complete the following closure measures in the event they are proposing to permanently close the sludge disposal site or a surface disposal cell:</p> <p>a) Notify NMED of the closure of a surface disposal cell.</p> <p>b) Within 60 days of ceasing to discharge to a disposal cell, backfill the disposal cell(s) with clean fill (as necessary) and re-grade to allow for positive storm water drainage.</p> <p>c) Re-vegetate the cells and disturbed areas at the Facility by establishing a vegetative cover equal to 70% of the native perennial vegetative cover consisting of at least three native plant species including at least one grass, but not including noxious weeds. The Permittee shall maintain the vegetative cover through two consecutive growing seasons.</p> <p>The Permittee shall continue groundwater monitoring until the Permittee meets the requirements of this condition and groundwater monitoring confirms for a minimum of eight consecutive quarterly groundwater sampling events that groundwater does not exceed the standards of Section 20.6.2.3103 NMAC. This period is referred to as “post-closure.”</p>

#	Terms and Conditions
	<p>If at any time monitoring results show an exceedance of a groundwater quality standard in Section 20.6.2.3103 NMAC, the Permittee shall implement the Contingency Plan required by this Discharge Permit.</p> <p>Following notification from NMED that the Permittee may cease post-closure monitoring, the Permittee shall plug and abandon the monitoring well(s) in accordance with the attached Monitoring Well Guidance.</p> <p>When the Permittee has met all closure and post-closure requirements and verified appropriate actions with date stamped photographic evidence or an associated NMED inspection, the Permittee may submit to NMED a written request, including photographic evidence, for termination of the Discharge Permit.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>

E. GENERAL TERMS AND CONDITIONS

#	Terms and Conditions
33.	<p>RECORD KEEPING - The Permittee shall maintain a written record of the following:</p> <ul style="list-style-type: none"> • Information and data used to complete the application for this Discharge Permit; • Information, data, and documents demonstrating completion of closure activities; • Any releases (commonly known as “spills”) not authorized under this Discharge Permit and reports submitted pursuant to 20.6.2.1203 NMAC; • The operation, maintenance, and repair of all facilities/equipment used to treat, store or dispose of wastewater; • Facility record drawings (plans and specifications) showing the actual construction of the Facility and bear the seal and signature of a licensed New Mexico professional engineer; • Copies of logs, inspection reports, and monitoring reports completed and/or submitted to NMED pursuant to this Discharge Permit; • The volume of wastewater or other wastes discharged pursuant to this Discharge Permit; • Groundwater quality and wastewater quality data collected pursuant to this Discharge Permit; • Copies of construction records (well log) for all sampled groundwater monitoring wells pursuant to this Discharge Permit; • The maintenance, repair, replacement or calibration of any monitoring equipment or flow measurement devices required by this Discharge Permit; and

#	Terms and Conditions
	<ul style="list-style-type: none"> • Data and information related to field measurements, sampling, and analysis conducted pursuant to this Discharge Permit, including: <ul style="list-style-type: none"> a. the dates, location 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 sample analysis date of each sample d. the name and address of the laboratory, and the name of the signatory authority for the laboratory analysis; e. the analytical technique or method used to analyze each sample or collect each field measurement; f. the results of each analysis or field measurement, including raw data; g. the results of any split, spiked, duplicate or repeat sample; and h. a copy of the laboratory analysis chain-of-custody as well as a description of the quality assurance and quality control procedures used. <p>The Permittee shall maintain the written record at a location accessible to NMED during a Facility inspection for a lifetime of the Discharge Permit. The Permittee shall make the record available to the department upon request.</p> <p>[Subsections A and D of 20.6.2.3107 NMAC]</p>
34.	<p>SUBMITTALS – The Permittee shall submit both a paper copy and an electronic copy of all notification and reporting documents required by this Discharge Permit, e.g., monitoring reports. The paper and electronic documents shall be submitted to the NMED Permit Contact identified on the Permit cover page.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
35.	<p>INSPECTION and ENTRY – The Permittee shall allow NMED to inspect the Facility and its operations that are subject to this Discharge Permit and the WQCC regulations. NMED may upon presentation of proper credentials, enter at reasonable times upon or through any premises in which a water contaminant source is located or in which any maintained records required by this Discharge Permit, the regulations of the federal government, or the WQCC are located.</p> <p>The Permittee shall allow NMED to have access to and reproduce for their use any copy of the records, and to perform assessments, sampling or monitoring during an inspection for the purpose of evaluating compliance with this Discharge Permit and the WQCC regulations.</p>

#	Terms and Conditions
	<p>No person shall construe anything in this Discharge Permit as limiting in any way the inspection and entry authority of NMED under the WQA, the WQCC Regulations, or any other local, state or federal regulations.</p> <p>[Subsection D of 20.6.2.3107 NMAC, NMSA 1978, §§ 74-6-9.B and 74-6-9.E]</p>
36.	<p>DUTY to PROVIDE INFORMATION - The Permittee shall, upon NMED’s request, allow for NMED’s inspection/duplication of records required by this Discharge Permit and/or furnish to NMED copies of such records.</p> <p>[Subsection D of 20.6.2.3107 NMAC]</p>
37.	<p>MODIFICATIONS and/or AMENDMENTS – In the event the Permittee proposes a change to the Facility or the Facility’s discharge that would result in a change in the volume discharged; the location of the discharge; or in the amount or character of water contaminants received, treated or discharged by the Facility, the Permittee shall notify NMED prior to implementing such changes. The Permittee shall obtain NMED’s approval (which may require modification of this Discharge Permit) prior to implementing such changes.</p> <p>[Subsection C of 20.6.2.3107 NMAC, Subsections E and G of 20.6.2.3109 NMAC]</p>
38.	<p>PLANS and SPECIFICATIONS – In the event the Permittee proposes to construct a wastewater system or change a process unit of an existing system such that the quantity or quality of the discharge will change substantially from that authorized by this Discharge Permit, the Permittee shall submit construction plans and specifications of the proposed system or process unit to NMED for approval prior to the commencement of construction.</p> <p>In the event the Permittee implements changes to the wastewater system authorized by this Discharge Permit that result in only a minor effect on the character of the discharge, the Permittee shall report such changes (including the submission of record drawings where applicable) to NMED prior to implementation.</p> <p>[Subsections A and C of 20.6.2.1202 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]</p>
39.	<p>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</p>

#	Terms and Conditions
	<p>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.</p> <p>[20.6.2.1220 NMAC, NMSA 1978, §§ 74-6-10 and 74-6-10.1]</p>
40.	<p>CRIMINAL PENALTIES – No person shall:</p> <ul style="list-style-type: none"> • Make any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or maintained under the WQA; • Falsify, tamper with, or render inaccurate any monitoring device, method or record maintained under the WQA; or • Fail to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation. <p>Any person who knowingly violates or knowingly causes or allows another person to violate the requirements of this condition is guilty of a fourth-degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who is convicted of a second or subsequent violation of the requirements of this condition is guilty of a third-degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who knowingly violates the requirements of this condition or knowingly causes another person to violate the requirements of this condition and thereby causes a substantial adverse environmental impact is guilty of a third-degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who knowingly violates the requirements of this condition and knows at the time of the violation that he is creating a substantial danger of death or serious bodily injury to any other person is guilty of a second degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15.</p> <p>[20.6.2.1220 NMAC, NMSA 1978, §§ 74-6-10.2.A through 74-6-10.2.F]</p>
41.	<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 any other applicable federal, state, and/or local laws, regulations, zoning requirements, nuisance ordinances, permits or orders.</p>

#	Terms and Conditions
	[NMSA 1978, § 74-6-5.L]
42.	<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 days of the receipt of postal notice of this Discharge Permit and shall include a statement of the issues raised and the relief sought. Unless the Permittee files a timely petition for review, the decision of NMED shall be final and not subject to judicial review.</p> <p>[20.6.2.3112 NMAC, NMSA 1978, § 74-6-5.O]</p>
43.	<p>TRANSFER of DISCHARGE PERMIT - Prior to the transfer of any ownership, control, or possession of this Facility or any portion thereof, the Permittee shall:</p> <ul style="list-style-type: none"> • Notify the proposed transferee in writing of the existence of this Discharge Permit; • Include a copy of this Discharge Permit with the notice; and • Deliver or send by certified mail to NMED a copy of the notification and proof that the proposed transferee has received such notification. <p>The Permittee shall continue to be responsible for any discharge from the Facility, until both ownership and possession of the Facility have been transferred to the transferee.</p> <p>[20.6.2.3111 NMAC]</p>
44.	<p>PERMIT FEES – The Permittee shall be aware that the payment of permit fees is due at the time of Discharge Permit approval. The Permittee may pay the permit fees in a single payment or they may pay the fee in equal installments on a yearly basis over the term of the Discharge Permit. The Permittee shall remit single payments to NMED no later than 30 days after the Discharge Permit issuance date. The Permittee shall remit initial installment payments to NMED no later than 30 days after the Discharge Permit issuance date; with subsequent installment payments remitted to NMED no later than the anniversary of the Discharge Permit issuance date.</p> <p>Permit fees are associated with <u>issuance</u> of this Discharge Permit. No person shall construe anything in this Discharge Permit as relieving the Permittee of the obligation to pay all permit fees assessed by NMED. A Permittee that ceases discharging or does not commence discharging from the Facility during the term of the Discharge Permit shall pay all permit fees assessed by NMED. NMED shall suspend or terminate an approved Discharge Permit if the Permittee fails to remit an installment payment by its due date.</p> <p>[Subsection F of 20.6.2.3114 NMAC, NMSA 1978, § 74-6-5.K]</p>



New Mexico Environment Department Ground Water Quality Bureau Discharge Permit Summary

Facility Information

Facility Name City of Deming WWTP Sludge Disposal Site
Discharge Permit Number DP-1957

Legally Responsible Party Jim Massengill, Public Works Director
City of Deming
P.O. Box 706
Deming, New Mexico 88031
(575) 546-8848

Treatment, Disposal and Site Information

Primary Waste Type Domestic Wastewater Treatment Facility Sludge
Facility Type Surface Disposal Site

Discharge Locations

Type	Designation	Description & Comments
Surface Disposal Cells	Cell 1-6	Six surface disposal cells used to dispose wastewater treatment plant sludge

Ground Water Monitoring Locations

Type	Designation	Description & Comments
Monitoring Well	MW-18	To be installed 20 to 50 feet hydrologically downgradient of the surface disposal area
Monitoring Well	MW-19	To be installed at an alternate location from MW-18 and 20 to 50 feet hydrologically downgradient of the surface disposal area
Monitoring Well	MW-6	Located south of the surface disposal area, to be plugged and abandoned

Depth-to-Ground Water 90 feet
Total Dissolved Solids (TDS) 596 mg/L

Permit Information

Current Action	Original Permit Issuance
Application Received	October 20, 2022
Public Notice Published	[not yet published]
Permit Issued (Issuance Date)	[issuance date]
Permitted Discharge Volume	15,000 gallons per day



New Mexico Environment Department Ground Water Quality Bureau Discharge Permit Summary

NMED Contact Information

Mailing Address

Ground Water Quality Bureau
P.O. Box 5469
Santa Fe, New Mexico 87502-5469

GWQB Telephone Number

(505) 827-2900

NMED Lead Staff

Avery Young

Lead Staff Telephone Number

(505) 699-8564

Lead Staff Email

avery.young@env.nm.gov or pps.general@env.nm.gov

draft

**Surface Disposal Data Sheet (SDDS)
Sludge**

New Mexico Environment Department
Ground Water Quality Bureau



DATE: DP#: MONITORING REPORT DUE DATE:

FACILITY NAME: REPORTING PERIOD (i.e., from ___ to ___):

SLUDGE TYPE (i): DISCHARGE CELL DESIGNATION (i): # ACRES IN CELL:

A	B	C	D	E	F	G	H
MONTH & YEAR OF DISCHARGE (ii)	PERCENT SOLIDS	VOLUME OF SLUDGE DISCHARGED	DRY WEIGHT OF SLUDGE DISCHARGED	SLUDGE SAMPLE: TOTAL NITROGEN CONCENTRATION (iii)	TOTAL NITROGEN (KG)	TOTAL NITROGEN (Pounds)	NITROGEN LOADING
	%	GALLONS	(B X 10,000 X C / 1,000,000 X 8.34 / 2,200) metric tons dry weight	(TKN + NO3-N) mg/kg	((D x E) ÷ 1,000) kg N	(F x 2.2) lbs N	(G ÷ # acres) lbs N/acre
<i>example assuming a 3-acre cell: MM - YY</i>	5.8	120,000 gallons	26.4 metric tons	2063 mg/kg TKN + 687 mg/kg NO3-N = 2750 mg/kg N	(26.4 metric tons x 2750 mg/kg) ÷ 1,000 = 72.6 kg N	(72.6 kg N/metric ton) x 2.2 = 160 lbs N	160 lbs N ÷ 3 acres = 53 lbs N/ac
			0.0		0.0	0	
			0.0		0.0	0	
			0.0		0.0	0	
			0.0		0.0	0	
			0.0		0.0	0	
			0.0		0.0	0	
			0.0		0.0	0	
			0.0		0.0	0	
			0.0		0.0	0	
			0.0		0.0	0	
			0.0		0.0	0	
			0.0		0.0	0	
			0.0		0.0	0	
			0.0		0.0	0	
TOTALS						0	

(i) One SDDS form should be submitted for each cell designation and for each sludge type (liquid, semi-solid, or solid) disposed of in each cell.
(ii) Each form must reflect the most recent 12 months of sludge discharge. In the event discharge did not occur, please report MM-YY and "no discharge" in Column C.
(iii) This information should be obtained from the most recent laboratory analysis. If quarterly sampling is required, record the same data for the three months of that monitoring quarter.

**NEW MEXICO ENVIRONMENT DEPARTMENT
GROUND WATER QUALITY BUREAU
MONITORING WELL CONSTRUCTION AND ABANDONMENT GUIDELINES**

Purpose: These guidelines identify minimum construction and abandonment details for installation of water table monitoring wells under groundwater Discharge Permits issued by the NMED's Ground Water Quality Bureau (GWQB) and Abatement Plans approved by the GWQB. Proposed locations of monitoring wells required under Discharge Permits and Abatement Plans and requests to use alternate installation and/or construction methods for water table monitoring wells or other types of monitoring wells (e.g., deep monitoring wells for delineation of vertical extent of contaminants) must be submitted to the GWQB for approval prior to drilling and construction.

General Drilling Specifications:

1. All well drilling activities must be performed by an individual with a current and valid well driller license issued by the State of New Mexico in accordance with 19.27.4 NMAC. Use of drillers with environmental well drilling experience and expertise is highly recommended.
2. Drilling methods that allow for accurate determinations of water table locations must be employed. All drill bits, drill rods, and down-hole tools must be thoroughly cleaned immediately prior to the start of drilling. The borehole diameter must be drilled a minimum of 4 inches larger than the casing diameter to allow for the emplacement of sand and sealant.
3. After completion, the well should be allowed to stabilize for a minimum of 12 hours before development is initiated.
4. The well must be developed so that formation water flows freely through the screen and is not turbid, and all sediment and drilling disturbances are removed from the well.

Well Specifications (see attached monitoring well schematic):

5. Schedule 40 (or heavier) polyvinyl chloride (PVC) pipe, stainless steel pipe, carbon steel pipe, or pipe of an alternate appropriate material that has been approved for use by NMED must be used as casing. The casing must have an inside diameter not less than 2 inches. The casing material selected for use must be compatible with the anticipated chemistry of the groundwater and appropriate for the contaminants of interest at the facility. The casing material and thickness selected for use must have sufficient collapse strength to withstand the pressure exerted by grouts used as annular seals and thermal properties sufficient to withstand the heat generated by the hydration of cement-based grouts. Casing sections may be joined using welded, threaded, or mechanically locking joints; the method selected must provide sufficient joint strength for the specific well installation. The casing must extend from the top of the screen to at least one foot above ground surface. The top of the casing must be fitted with a removable cap, and the exposed casing must be protected by a locking steel well shroud. The shroud must be large enough in diameter to allow easy access for removal of the cap. Alternatively, monitoring wells may be completed below grade. In this case, the casing must extend from the top of the screen to 6 to 12 inches below the ground surface; the monitoring wells must be sealed with locking, expandable well plugs; a flush-mount, watertight well vault that is rated to withstand traffic loads must be emplaced around the wellhead; and the cover must be secured with at least one bolt. The vault cover must indicate that the wellhead of a monitoring well is contained within the vault.
6. A 20-foot section (maximum) of continuous-slot, machine slotted, or other manufactured PVC or stainless steel well screen or well screen of an alternate appropriate material that has been approved for use by NMED must be installed across the water table. Screens created by cutting slots into solid casing with saws or other tools must not be used. The screen material selected for use must be compatible with the anticipated chemistry of the ground water and appropriate for the contaminants of interest at the facility. Screen sections may be joined using welded, threaded, or mechanically

- locking joints; the method selected must provide sufficient joint strength for the specific well installation and must not introduce constituents that may reasonably be considered contaminants of interest at the facility. A cap must be attached to the bottom of the well screen; sumps (i.e., casing attached to the bottom of a well screen) should not be installed. The bottom of the screen must be installed no more than 15 feet below the water table; the top of the well screen must be positioned not less than 5 feet above the water table. The well screen slots must be appropriately sized for the formation materials and should be selected to retain 90 percent of the filter pack. A slot size of 0.010 inches is generally adequate for most installations.
7. Casing and well screen must be centered in the borehole by placing centralizers near the top and bottom of the well screen.
 8. A filter pack must be installed around the screen by filling the annular space from the bottom of the screen to 2 feet above the top of the screen with clean silica sand. The filter pack must be properly sized to prevent fine particles in the formation from entering the well; clean medium to coarse silica sand is generally adequate as filter pack material for 0.010-inch slotted well screen. For wells deeper than 30 feet, the sand must be emplaced by a tremmie pipe. The well should be surged or bailed to settle the filter pack and additional sand added, if necessary, before the bentonite seal is emplaced.
 9. A bentonite seal must be constructed immediately above the filter pack by emplacing bentonite chips or pellets (3/8-inch in size or smaller) in a manner that prevents bridging of the chips/pellets in the annular space. The bentonite seal must be 3 feet in thickness and hydrated with clean water. Adequate time should be allowed for expansion of the bentonite seal before installation of the annular space seal.
 10. The annular space above the bentonite seal must be sealed with cement grout or a bentonite-based sealing material acceptable to the State Engineer pursuant to 19.27.4 NMAC. A tremmie pipe must be used when placing sealing materials at depths greater than 20 feet below the ground surface. Annular space seals must extend from the top of the bentonite seal to the ground surface (for wells completed above grade) or to a level 3 to 6 inches below the top of casing (for wells completed below grade).
 11. For monitoring wells finished above grade, a concrete pad (2-foot minimum radius, 4-inch minimum thickness) must be poured around the shroud and wellhead. The concrete and surrounding soil must be sloped to direct rainfall and runoff away from the wellhead. The installation of steel posts around the well shroud and wellhead is recommended for monitoring wells finished above grade to protect the wellhead from damage by vehicles or equipment. For monitoring wells finished below grade, a concrete pad (2-foot minimum radius, 4-inch minimum thickness) must be poured around the well vault and wellhead. The concrete and surrounding soil must be sloped to direct rainfall and runoff away from the well vault.

Abandonment:

12. Approval for abandonment of monitoring wells used for ground water monitoring in accordance with Discharge Permit and Abatement Plan requirements must be obtained from NMED prior to abandonment.
13. Well abandonment must be accomplished by removing the well casing and placing neat cement grout, bentonite-based plugging material, or other sealing material approved by the State Engineer for wells that encounter water pursuant to 19.27.4 NMAC from the bottom of the borehole to the ground surface using a tremmie pipe. If the casing cannot be removed, neat cement grout, bentonite-based plugging material, or other sealing material approved by the State Engineer must be placed in the well using a tremmie pipe from the bottom of the well to the ground surface.
14. After abandonment, written notification describing the well abandonment must be submitted to the NMED. Written notification of well abandonment must consist of a copy of the well plugging record submitted to the State Engineer in accordance with 19.27.4 NMAC, or alternate documentation containing the information to be provided in a well plugging record required by the State Engineer as specified in 19.27.4 NMAC.

Deviation from Monitoring Well Construction and Abandonment Requirements: Requests to construct water table monitoring wells or other types of monitoring wells for groundwater monitoring under groundwater Discharge Permits or Abatement Plans in a manner that deviates from the specified requirements must be submitted in writing to the GWQB. Each request must state the rationale for the proposed deviation from these requirements and provide detailed evidence supporting the request. The GWQB will approve or deny requests to deviate from these requirements in writing.

MONITORING WELL SCHEMATIC

(Not to Scale)

