



CERTIFIED MAIL – RETURN RECEIPT REQUESTED

October 20, 2025

Anna Silva, Deputy Cabinet Secretary
General Services Department, Property Control Division
2542 Cerrillos Rd
Santa Fe, New Mexico 87505

RE: Draft Discharge Permit Renewal, DP-612, Roswell Correctional Center

Dear Deputy Cabinet Secretary Anna Silva:

The New Mexico Environment Department (NMED) hereby provides notice to the Property Control Division of the State of New Mexico General Services Department of the proposed approval of Ground Water Discharge Permit Renewal, DP-612, (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 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 andrewc.romero@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) 660-8624.

Anna Silva, DP-612

October 20, 2025

Page 2 of 2

Sincerely,

Andrew Romero, Water Resources Professional III

Encl: Draft Discharge Permit Renewal, DP-612

cc: Peter Barrington, FMD Deputy Director, peter.barrington@gsd.nm.gov
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**NEW MEXICO
ENVIRONMENT DEPARTMENT**

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Draft: October 20, 2025

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

Facility Name: Roswell Correctional Center
Discharge Permit Number: DP-612
Facility Location: 578 West Chickasaw Rd.
Hagerman, NM 88232

County: Chavez

Permittee: General Services Department
Mailing Address: Anna Silva, Deputy Cabinet Secretary
2542 Cerrillos Rd
Santa Fe, NM 87505

Facility Contact: Felix Espinoza
Telephone Number/Email: 505-239-2781 / fespinoza@aesnm.com

Permitting Action: Renewal
Permit Issuance Date: DATE
Permit Expiration Date: DATE

NMED Permit Contact: Andrew Romero
Telephone Number/Email: 505-660-8624 / andrewc.romero@env.nm.gov or
505-827-2900 / pps.general@env.nm.gov

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

Date

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ATTACHMENTS

- Discharge Permit Summary
- Groundwater Discharge Permit Guidance for Synthetically Lined Lagoons – Liner Material and Site Preparation, Revision 0.0, May 2007
- New Mexico Environment Department Ground Water Quality Bureau Monitoring Well Construction and Abandonment Guidelines, Revision 1.1, March 2011 (Monitoring Well Guidance)
- Land Application Data Sheet (LADS - <https://www.env.nm.gov/forms/>)

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this groundwater discharge permit Renewal (Discharge Permit or DP-612) to the Property Control Division of the State of New Mexico General Services Department (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 Roswell Correctional Center (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 Facility receives and treats domestic wastewater at a volume of up to 50,000 gallons per day (gpd) in two synthetically lined aerated impoundments. Treated wastewater discharges to a (non-native) wetlands area for infiltration. The Permittee is required by the terms of this Discharge Permit to submit a Preliminary Engineering Report (PER) that evaluates alternative options for wastewater treatment, storage, disposal, and/or reuse.

Data collected from an on-site monitoring well documents groundwater contamination attributed to one or more sources at this Facility. The on-site monitoring well has exceedances of groundwater quality standards for NO₃-N according to the criteria of Sections 20.6.2.3101 and 20.6.2.3103 NMAC. This Discharge Permit contains requirements, actions and/or contingencies intended to address the source(s) of documented groundwater contamination.

Discharge Permit Location Information:

Physical Address	578 West Chickasaw Rd.
Nearest Town/City	Approximately 10 miles west of Hagerman
Section, Township, Range	Section 34, Township 14 South, Range 25 East
County	Chaves
Depth to Groundwater	76 ft
Pre-Discharge TDS	2,240 mg/L

Discharge Permit Issuance History:

Original Permit Issuance	June 28, 1989
Permit Renewal	June 10, 1996
Permit Renewal and Modification	April 10, 2007
Permit Renewal and Modification	June 7, 2013
Permit Renewal	August 13, 2019

The application (i.e., discharge plan) associated with this Discharge Permit consists of the materials submitted by the Permittee dated August 22, 2024, and materials contained in the administrative record prior to issuance of this Discharge Permit.

The Permittee shall manage the 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 the department that structural controls and/or 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
BOD ₅	biochemical oxygen demand (5-day)	NMED	New Mexico Environment Department
CAP	Corrective Action Plan	NMSA	New Mexico Statutes Annotated
CFR	Code of Federal Regulations	NO ₃ -N	nitrate-nitrogen
CFU	colony forming unit	NTU	nephelometric turbidity units
Cl	chloride	QA/QC	Quality Assurance/Quality Control
EPA	United States Environmental Protection Agency	TDS	total dissolved solids
Gpd	gallons per day	TKN	total Kjeldahl nitrogen
LAA	land application area	total nitrogen	= TKN + NO ₃ -N
LADS	Land Application Data Sheet(s)	TRC	total residual chlorine
mg/L	milligrams per liter	TSS	total suspended solids

Abbreviation	Explanation	Abbreviation	Explanation
mL	milliliters	WQA	New Mexico Water Quality Act
MPN	most probable number	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 this Facility has the potential to 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 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 receive and treat domestic wastewater up to 50,000 gpd in two synthetically lined aerated impoundments. This Discharge Permit also authorizes the Permittee to discharge treated wastewater to a (non-native) wetlands area for infiltration.

[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.	<p>The Permittee shall implement the following operational plan to ensure compliance with Title 20, Chapter 6, Parts 2 and 4 NMAC.</p> <p>[Subsection C of 20.6.2.3109 NMAC]</p>
2.	<p>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.</p> <p>[20.6.2.3101 NMAC, 20.6.2.3103 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>

Operational Actions with Implementation Deadlines

#	Terms and Conditions
3.	<p>Within 180 days following the issuance date of this Discharge Permit (by DATE), the Permittee shall submit an up-to-date diagram of the layout of the entire Facility to NMED. The diagram shall include the following elements:</p> <ul style="list-style-type: none"> • a north arrow; • the issuance date of the diagram; • all components of the wastewater treatment and disposal system; • all groundwater monitoring wells; • all flow measurement devices; and • all wastewater sampling locations. <p>The Permittee shall ensure that any element that cannot be directly shown due to its location inside of existing structures, or because it is buried without surface identification, shall be on the diagram in a schematic format and identified as such.</p> <p>[Subsection C of 20.6.2.3106 NMAC, Subsection A of 20.6.2.3107 NMAC]</p>
4.	<p>Within 180 days of the issuance date of this Discharge Permit (by DATE), the Permittee shall submit a Preliminary Engineering Report (PER) signed, dated and stamped by a licensed New Mexico professional engineer for NMED approval. The report shall evaluate, at a minimum, returning the AEROTOR package plant to service, and alternative options for wastewater storage, disposal, and/or reuse and improvements necessary at the Facility to replace discharge to the (non-native) wetlands area.</p>

#	Terms and Conditions
	<p>The report shall identify effluent disposal/reuse options and make recommendations for a preferred alternative that will ensure compliance with this Discharge Permit, the WQCC Regulations, and the WQA.</p> <p>The Permittee shall submit the draft PER to NMED for review for Discharge Permit compliance determination and comment.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC]</p>
5.	<p>Within one year of the issuance date of this Discharge Permit (by DATE), the Permittee shall submit final construction plans and specifications for NMED’s review of the selected alternative from the PER required by this Discharge Permit. The construction plans and specifications shall bear the seal and signature of a licensed New Mexico professional engineer (pursuant to New Mexico Engineering and Surveying Practice Act and the rules promulgated under that authority) and shall include the supporting design calculations.</p> <p>The submitted documentation shall include the following elements, if applicable.</p> <ol style="list-style-type: none"> a) Details for the construction of any proposed impoundment and a liner consistent with the attachment titled <i>Groundwater Discharge Permit Guidance for Synthetically Lined Lagoons – Liner Material and Site Preparation</i>, Revision 0.0, May 2007. b) Evaporative impoundment capacity and evaporative potential design calculations - The Permittee shall design the impoundments to dispose of the permitted discharge volume by evaporation while preserving two feet of freeboard. Design calculations may consider seasonal discharge patterns. c) Wastewater system components design, e.g., lift stations, valves, transfer lines, process units and associated details; whether new for the new system, retrofitted for the new system, or proposed for abandonment. d) Flow meter design detail - Flow meters to measure the volume of wastewater discharged to the proposed treatment system, then discharged to the selected alternative method for final disposal. e) Specifications for all equipment, materials and installation procedures the Permittee will use in the construction of the wastewater system. f) Fences design detail around the proposed treatment system. <p>Prior to constructing the proposed treatment system and its associated components, the Permittee shall obtain written verification from NMED that the plans and specifications meet the requirements of this Discharge Permit. Note that NMED may require a discharge permit modification prior to discharging to the new system if it will result in a change in location, 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.</p>

#	Terms and Conditions
	<p>[Subsections A and C of 20.6.2.1202 NMAC, Subsection C of 20.6.2.3106 NMAC, Subsection C of 20.6.2.3107 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]</p>
6.	<p>During the development of construction plans and specifications for the proposed treatment system, the Permittee shall submit construction plans and specifications at 50% and 95%, or equivalent, level of design for to NMED for review for Discharge Permit compliance and comment.</p> <p>[Subsections A and C of 20.6.2.1202 NMAC, Subsection C of 20.6.2.3106 NMAC, Subsection C of 20.6.2.3107 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]</p>
7.	<p>Within two years following the issuance date of this Discharge Permit (by DATE), the Permittee shall complete construction in accordance with the final construction plans and specifications required by this Discharge Permit. The Permittee shall notify NMED at least five working days prior to commencement of construction to allow NMED personnel to be onsite for inspection.</p> <p>[Subsections A and C of 20.6.2.1202 NMAC, Subsection C of 20.6.2.3109 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]</p>
8.	<p>Within 30 days of completing construction of the proposed treatment system, the Permittee shall submit record drawings to NMED that bear the seal and signature of a licensed New Mexico professional engineer (pursuant to the New Mexico Engineering and Surveying Practice Act and the rules promulgated under that authority) for the constructed system.</p> <p>[Subsections A and C of 20.6.2.1202 NMAC, Subsection C of 20.6.2.3109 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]</p>
9.	<p>Within 180 days following the issuance date of this Discharge Permit (by DATE), the Permittee shall measure the thickness of the settled solids in the two synthetically lined impoundments. The Permittee shall report the results of the solids thickness measurements to NMED in the next required periodic monitoring report.</p> <p>The Permittee shall measure the thickness of settled solids in accordance with the following procedure.</p> <ol style="list-style-type: none"> a) The division of the total surface area of the treatment impoundment into nine equal sub-areas. b) One measurement (to the nearest half foot) using a settled solids measurement device (e.g., core sampler) per sub-area. c) Calculation of the average of the nine measurements.

#	Terms and Conditions
	<p>In the event that the measured settled solids exceed one-third of the maximum liquid depth in the impoundment, the Permittee shall implement the Contingency Plan set forth in this Discharge Permit.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>

Operating Conditions

#	Terms and Conditions
10.	<p>The Permittee shall ensure that treated wastewater discharged from the synthetically lined impoundments does not exceed the following discharge limit.</p> <p>Total Nitrogen: 20 mg/L</p> <p>[Subsection C of 20.6.2.3109 NMAC]</p>
11.	<p>The Permittee shall discharge treated wastewater to the wetlands area such that the amount of total nitrogen discharged does not exceed 200 pounds per acre in any 12-month period. The Permittee shall not adjust nitrogen content to account for volatilization or mineralization processes. The Permittee shall distribute wastewater evenly throughout the entire disposal area.</p> <p>[Subsection C of 20.6.2.3109 NMAC]</p>
12.	<p>The Permittee shall maintain fences around the Facility to restrict access by the general public and animals. The fences shall consist of a minimum of six-foot chain link or field fencing and locking gates. The Permittee shall maintain the fences to serve the stated purpose throughout the term of this Discharge Permit.</p> <p>[Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]</p>
13.	<p>The Permittee shall maintain signs indicating that the wastewater at the Facility is not potable. The Permittee shall post signs at the Facility entrance and other areas where there is potential for public contact with wastewater. The Permittee shall print signs in English and Spanish and shall ensure the signs remain visible and legible for the term of this Discharge Permit.</p> <p>[Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]</p>

#	Terms and Conditions
14.	<p>The Permittee shall maintain the impoundment liners to avoid conditions that could affect the liner or the structural integrity of the impoundments. Characterization of such conditions may include the following:</p> <ul style="list-style-type: none">• erosion damage;• animal burrows or other damage;• the presence of vegetation including aquatic plants, weeds, woody shrubs or trees growing within five feet of the top inside edge of a sub-grade impoundment, within five feet of the toe of the outside berm of an above-grade impoundment, or within the impoundment itself;• the presence of large debris or large quantities of debris in the impoundment;• evidence of seepage; or• evidence of berm subsidence. <p>The Permittee shall routinely control vegetation growing around the impoundments by mechanical removal that is protective of the impoundment liner.</p> <p>The Permittee shall visually inspect the impoundments and surrounding berms on a monthly basis to ensure proper maintenance. In the event that inspection reveals any evidence of damage that threatens the structural integrity of an impoundment berm or liner, or that may result in an unauthorized discharge, the Permittee shall implement the Contingency Plan set forth in this Discharge Permit.</p> <p>The Permittee shall create and maintain a log of all impoundment inspections which describes the date of the inspection, any findings and repairs and the name of the person responsible for the inspection. The Permittee 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>
15.	<p>The Permittee shall preserve a minimum of two feet of freeboard, i.e., the distance between the highest calculated liquid level in the impoundments and the liquid level which would result in the release of stored liquid from the impoundments.</p> <p>In the event that the Permittee determines that it cannot preserve two feet of freeboard in the impoundment, the Permittee shall implement the Contingency Plan set forth in this Discharge Permit.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>
16.	<p>The Permittee shall inspect and clean the lift station(s) as needed to prevent pump failure.</p>

#	Terms and Conditions
	<p>The Permittee shall maintain a record of lift station inspections, repairs, and cleanings. The Permittee shall make the record available to NMED upon request.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>
17.	<p>The Permittee shall utilize operators, certified by the State of New Mexico at the appropriate level pursuant to 20.7.4 NMAC, to operate the wastewater collection, treatment, and disposal systems. A certified operator or a direct supervisee of a certified operator shall perform the operations and maintenance of all or any part of the wastewater system.</p> <p>The Permittee shall notify the NMED within 24 hours if at any time the Permittee no longer has a certified operator maintaining the system.</p> <p>[Subsection C of 20.6.2.3109 NMAC, 20.7.4 NMAC]</p>

B. MONITORING AND REPORTING

#	Terms and Conditions
18.	<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>
19.	<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>

Due Dates for Monitoring Reports

#	Terms and Conditions
20.	<p>Quarterly monitoring - The Permittee shall perform monitoring and other Permit required actions during the following periods and shall submit quarterly reports to NMED by the following due dates:</p> <ul style="list-style-type: none"> • January 1st through March 31st – due by May 1st; • April 1st through June 30th – due by August 1st;

#	Terms and Conditions
	<ul style="list-style-type: none"> • July 1st through September 30th – due by November 1st; and • October 1st through December 31st – due by February 1st. <p>[Subsection A of 20.6.2.3107 NMAC]</p>

Monitoring Actions with Implementation Deadlines

#	Terms and Conditions
21.	<p>Within 90 days following the issuance date of this Discharge Permit (by DATE), the Permittee shall install the following flow meters.</p> <ol style="list-style-type: none"> a) One ultrasonic flow meter installed at the Parshall flume in the concrete channel feeding the impoundment inlet splitter box to measure the volume of wastewater received by the synthetically lined impoundments. b) One totalizing flow meter installed on the discharge line from the treatment system to the wetlands area to measure the volume of treated wastewater discharged to the wetlands area. <p>The Permittee shall submit confirmation of meter installation, type, calibration, and locations within 30 days of completed installations.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>
22.	<p>Within 60 days following the issuance date of this Discharge Permit (by DATE), 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 well required by 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 well 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 and the latitude and longitude coordinates for each well in decimal format. Examples include: 35 feet north-northwest of the northern berm of the synthetically lined impoundment and 35.898306 and -107.281519; 45 feet due south of the leachfield and 35.898306 and -107.281519; and 30 feet southeast of the reuse area and 35.898306 and -107.281519. 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>
23.	<p>Within 120 days of the issuance date of this Discharge Permit (by DATE), the Permittee shall install the following new monitoring well.</p> <p>a) One monitoring well (MW-4) located 20 to 50 feet hydrologically downgradient of the synthetically lined impoundments.</p> <p>The Permittee shall complete the well 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>
24.	<p>Within 150 days following the issuance date of this Discharge Permit (by DATE), 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>The Permittee shall measure the depth-to-most-shallow groundwater 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 survey, 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
25.	<p>The Permittee shall perform quarterly groundwater sampling in the following groundwater monitoring wells and analyze the samples for TKN, NO₃-N, TDS, and Cl.</p> <ul style="list-style-type: none">a) MW-1, located hydrologically downgradient and approximately 30 feet from the wetlands area. (33.139856, -104.539208)b) MW-2, located hydrologically downgradient and approximately 50 feet from the former effluent infiltration area. (33.139352, -104.539211)c) MW-3, located approximately 60 feet hydrologically downgradient of the residential subsurface irrigation area. (33.140505, -104.540891)d) MW-4, once installed, located 20 to 50 feet hydrologically downgradient of the synthetically lined impoundments. <p>The Permittee shall perform groundwater sample collection, preservation, transport, and analysis according to the following procedures.</p> <ul 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. <p>The Permittee shall submit the depth-to-most-shallow groundwater measurements and the laboratory analytical data results including the laboratory QA/QC summary report and Chain of Custody for each well, and a Facility layout map showing the location and number of each well to NMED in the quarterly monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
26.	<p>The Permittee shall develop a groundwater elevation contour map, i.e., potentiometric surface map, on a quarterly basis using the top of casing elevation data from the monitoring well survey and the most recent depth-to-most-shallow groundwater measurements, referenced to mean sea level, obtained during the groundwater sampling required by this Discharge Permit.</p> <p>The groundwater elevation contour map shall depict the groundwater flow direction based on the groundwater elevation contours. The Permittee shall estimate groundwater elevations between monitoring well locations using common interpolation methods. The Permittee shall use a contour interval appropriate to the data but shall not be greater than two feet. Groundwater elevation contour maps shall use arrows to depict</p>

#	Terms and Conditions
	<p>the groundwater flow direction based on the orientation of the groundwater elevation contours and shall locate and identify each monitoring well and contaminant source.</p> <p>The Permittee shall submit to NMED a groundwater elevation contour map in the quarterly monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
27.	<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 notify the Permittee. 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 prior to pump placement.</p> <p>[Subsections A and D of 20.6.2.3107 NMAC]</p>

Facility Monitoring Conditions

#	Terms and Conditions
28.	<p>The Permittee shall measure the total monthly volume, calculate the daily average volume, and record the daily peak volume of wastewater received by the Facility each month using a totalizing flow meter located on the water service line at the Roswell Correctional Center's water supply well until the Permittee installs an influent meter per Condition 21 of this Discharge Permit. The Permittee shall submit the totalized influent volumes for each calendar month to NMED in the quarterly monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]</p>
29.	<p>Once installed, the Permittee shall measure the total monthly volume, calculate the daily average volume, and record the daily peak volume of wastewater received by the treatment facility each month using an ultrasonic flow meter located on the Parshall flume in the concrete channel feeding the impoundment inlet splitter box. The Permittee shall submit the totalized influent volumes for each calendar month to NMED in the quarterly monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]</p>

#	Terms and Conditions
30.	<p>Once installed, the Permittee shall on a monthly basis measure the volume discharged from the synthetically lined aerated impoundments to the wetlands area using a totalizing flow meter. The meter shall be located on the transfer line between the impoundments and the wetlands area.</p> <p>The Permittee shall maintain a log that records the date that discharges occur to the wetlands area and the monthly totalizing meter readings and units of measurement. The Permittee shall use the log to calculate the total calendar monthly volume of treated wastewater discharged to the wetlands area. The Permittee shall also use the monthly volume discharged to <i>each</i> location on the LADS (copy enclosed) to calculate nitrogen loading. The Permittee shall submit a copy of the log to NMED in the quarterly monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]</p>
31.	<p>All flow meters shall be capable of having their accuracy verified under working (i.e., real-time in-the-field) conditions. The Permittee shall develop a field verification method for each flow meter and shall utilize that method to check the accuracy of each respective meter. The Permittee shall perform field calibrations, at a minimum, within 90 days of the issuance date of this Discharge Permit (by DATE), and then every other year thereafter. The Permittee shall also perform field calibrations upon repair or replacement of a flow measurement device.</p> <p>The Permittee shall calibrate each flow meter to its manufacturer's recommended specification which shall be no less accurate than plus or minus 10 percent of actual flow, as measured under field conditions. An individual knowledgeable in flow measurement shall perform field calibration and the installation/operation of the device in use. The Permittee shall prepare a flow meter calibration report for each flow measurement device calibration event. The flow meter calibration report shall include the following information.</p> <ol style="list-style-type: none">a) The location and meter identification.b) The method of flow meter field calibration employed.c) The measured accuracy of each flow meter prior to adjustment indicating the positive or negative offset as a percentage of actual flow as determined by an in-field calibration check.d) The measured accuracy of each flow meter following adjustment, if necessary, indicating the positive or negative offset as a percentage of actual flow of the meter.e) Any flow meter repairs made during the previous year or during field calibration.f) The name of the individual performing the calibration and the date of the calibration.

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	<p>The Permittee shall maintain records of flow meter calibration(s) at a location accessible for review by NMED during Facility inspections.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]</p>
32.	<p>The Permittee shall visually inspect flow meters on a monthly basis for evidence of malfunction. The Permittee shall maintain a log of the inspections that includes a date of the inspection, findings and repairs, and the name of the inspector. The Permittee shall make the log available to NMED upon request.</p> <p>If a visual inspection indicates a flow meter is not functioning as required by this Discharge Permit, the Permittee shall repair or replace the meter within 30 days of discovery. For <i>repaired</i> meters, the Permittee shall submit a report to NMED with the next monitoring report following the repair that includes a description of the malfunction; a statement verifying the repair; and a flow meter field calibration report completed in accordance with the requirements of this Discharge Permit. For <i>replacement</i> meters, the Permittee shall submit a report to NMED with the next monitoring report following the replacement that includes a design schematic for the device and a flow meter field calibration report completed in accordance with the requirements of this Discharge Permit.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>
33.	<p>The Permittee shall collect samples of treated domestic wastewater from the outlet of the synthetically lined impoundments effluent on a quarterly basis and analyze the samples for:</p> <ul style="list-style-type: none">• TKN;• NO₃-N;• TDS; and• Cl. <p>In the event that no effluent discharge occurs during the entire quarterly period, the Permittee shall collect a composite wastewater sample from the synthetically lined impoundments and analyze the sample for TKN, NO₃-N, TDS, and Cl. The composite sample shall consist of a minimum of six equal aliquots collected equidistantly around the entire perimeter of the impoundment and thoroughly mixed.</p> <p>The Permittee shall ensure the sample is properly prepared, preserved, transported, and analyzed in accordance with the methods authorized in this Discharge Permit. The Permittee shall submit the laboratory analytical data results, including the QA/QC</p>

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	<p>summary and Chain of Custody, and sampling location designation to NMED in the quarterly monitoring reports.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]</p>
34.	<p>The Permittee shall complete LADS (copy enclosed) on a monthly basis that document the amount of nitrogen applied to the wetlands area during the most recent 12 months. The LADS shall reflect the total nitrogen concentration from the most recent wastewater analysis and the measured discharge volumes to the wetlands area for each month. The Permittee shall complete the LADS with the information above or include a statement that the discharge of treated wastewater did not occur. The Permittee shall submit the LADS to NMED in the subsequent quarterly monitoring report.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>
35.	<p>The Permittee shall submit records of solids disposal, including the volume of solids removed and copies of all manifests for the previous calendar year, to NMED annually in the monitoring report due by August 1st each year.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>

C. CORRECTIVE ACTION PLAN

#	Terms and Conditions
36.	<p>To address the exceedance of the nitrate-nitrogen (NO₃-N) standard identified in Section 20.6.2.3103 NMAC in monitoring well MW-1, the Permittee shall complete the following corrective actions according to the following schedule:</p> <p>Within 60 days of the issuance date of this Discharge Permit (by DATE), 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>This condition shall apply until the Permittee completes groundwater monitoring for a minimum of eight (8) consecutive quarterly samples demonstrating groundwater does not exceed the standards of Section 20.6.2.3103 NMAC.</p> <p>NMED may require additional corrective actions if information becomes available indicating that the corrective actions taken are inadequate and/or groundwater contamination remains. The Permittee may be required to abate water pollution</p>

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	<p>pursuant to Sections 20.6.2.4000 through 20.6.2.4115 NMAC, if the CAP will not result in compliance with the standards and requirements set forth in Section 20.6.2.4103 NMAC.</p> <p>[20.6.2.3103 NMAC, Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]</p>

D. CONTINGENCY PLAN

#	Terms and Conditions
37.	<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 sampling 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>This condition shall apply until the Permittee completes groundwater monitoring for a minimum of eight (8) consecutive quarterly samples demonstrating groundwater does not exceed the standards of Section 20.6.2.3103 NMAC.</p> <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>[20.6.2.3103 NMAC, Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]</p>
38.	<p>In the event that information available to NMED indicates that a well is not constructed in a manner consistent with the attached 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>

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	<p>The Permittee shall survey the replacement monitoring well(s) within 30 days following well completion.</p> <p>The Permittee shall install replacement well(s) at locations approved by NMED prior to installation and shall complete replacement well(s) in accordance with the attached 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 monitoring well(s) requiring replacement upon completion of the replacement monitoring well(s). The Permittee shall complete the well plugging and abandonment, and shall document the abandonment procedures, in accordance with the attached 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(s) completion.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
39.	<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 the replacement well at the location approved by NMED prior to installation and shall complete the replacement well in accordance with the attached 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>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 attached 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>

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40.	<p>In the event that the Facility exceeds the authorized discharge volume set in this Discharge Permit, the Permittee shall initiate the following Contingency Plan.</p> <p><u>Contingency Plan</u></p> <ul style="list-style-type: none">a) Notify NMED within seven days of the discovery of the discharge volume exceedance that the Facility exceeded the authorized discharge volume.b) The Permittee shall conduct a physical inspection of the discharge system, i.e., inflow and infiltration issues, collection system failures, etc., and the totalizing flow meters to detect abnormalities and report the findings to NMED within 30 days of the discovery of the discharge volume exceedance. The Permittee shall correct any abnormalities detected with NMED's concurrence.c) If the Permittee does not detect any abnormalities and with NMED's concurrence, the Permittee shall submit a discharge permit modification for the increase in discharge quantity to NMED within 90 days of the discovery of the discharge volume exceedance. The discharge permit modification must include demonstration that the volume increase is sufficient for the design capacity or plans and specifications to upgrade the system to accommodate the discharge volume increase. <p>[Subsection A of 20.6.2.3107 NMAC]</p>
41.	<p>In the event that analytical results of a treated wastewater sample indicate an exceedance of the total nitrogen discharge limit set in this Discharge Permit, the Permittee shall collect and submit for analysis a second sample within 48 hours of the receipt of the initial sampling results. In the event the second sample results indicate an exceedance of the discharge limit, the Permittee shall implement the following contingencies.</p> <ul style="list-style-type: none">a) Within 7 days of the second sample analysis date indicating exceedance of the discharge limit, the Permittee shall:<ul style="list-style-type: none">i) notify NMED that the Permittee is implementing the Contingency Plan; andii) submit a copy of the first and second analytical results indicating an exceedance to NMED.b) The Permittee shall increase the frequency of total nitrogen wastewater sampling and analysis of treated wastewater to once per month.c) The Permittee shall examine the operation and maintenance log, required by the Record Keeping conditions of this Discharge Permit, for improper operational procedures.d) The Permittee shall conduct a physical inspection of the treatment system to detect abnormalities. The Permittee shall correct any abnormalities discovered. The Permittee shall submit a report to NMED detailing the corrections within 30 days of correction.

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	<p>e) In the event that any analytical results from monthly wastewater sampling indicate an exceedance of the total nitrogen discharge limit, the Permittee shall submit a CAP to NMED for approval proposing to modify operational procedures and/or upgrade the treatment process to achieve the total nitrogen limit. The Permittee shall submit the CAP including a schedule for completion of corrective actions and within 90 days of receipt of the analytical results of the second sample indicating that the discharge continues to exceed the limit. The Permittee shall initiate implementation of the CAP following approval by NMED.</p> <p>When analytical results from three consecutive months of wastewater sampling do not exceed the discharge limit, the Permittee may request NMED authorize a return to a quarterly monitoring frequency.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>
42.	<p>In the event that the LADS (copy enclosed) show that the amount of nitrogen in wastewater applied in any 12-month period exceeds 200 pounds per acre, the Permittee shall propose the reduction of nitrogen loading to the wetlands area by submitting a CAP to NMED for approval. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions and submit the CAP within 90 days following the end of the monitoring period in which the exceedance occurred. The Permittee shall implement 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>
43.	<p>In the event that an inspection reveals significant damage has occurred or is likely to affect the structural integrity of an impoundment or liner or their ability to contain contaminants, the Permittee shall propose the repair or replacement by submitting a CAP to NMED for approval. The Permittee shall submit the CAP to NMED within 30 days after discovery of the damage or following notification from NMED that significant damage is evident. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions. 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>
44.	<p>In the event that an impoundment cannot preserve a minimum of two feet of freeboard, the Permittee shall take actions to restore the required freeboard as authorized by this Discharge Permit and all applicable local, state, and federal regulations.</p> <p>In the event that two feet of freeboard cannot be restored within a period of 72 hours following discovery, the Permittee shall propose actions to restore two feet of freeboard</p>

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	<p>by submitting a short-term CAP to NMED for approval. Examples of short-term corrective actions include the pumping and hauling of excess wastewater from the impoundment or reducing the volume of wastewater discharged to the impoundment. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions. The Permittee shall submit the CAP within 15 days following the date the Permittee or the NMED discover the exceedance. The Permittee shall implement the CAP following NMED approval.</p> <p>In the event that the short-term corrective actions fail to restore two feet of freeboard, the Permittee shall submit to NMED a proposal for permanent corrective actions in a long-term CAP. The Permittee shall submit the long-term CAP within 90 days following failure of the short-term CAP. Examples of corrective actions include the installation of an additional storage impoundment or a significant and permanent reduction in the volume of wastewater discharged to the impoundment. The Permittee shall ensure the long-term CAP includes a schedule for completion of corrective actions. The Permittee shall implement the CAP following NMED approval.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
45.	<p>In the event the average solids accumulation exceeds one-third of the maximum liquid depth in the impoundments, the Permittee shall propose a plan for the removal and disposal of the solids. The Permittee shall submit the solids removal and disposal plan to NMED for approval within 120 days following discovery and include the following information.</p> <ul style="list-style-type: none"> a) A method for removal of the solids to a depth of less than six inches throughout the treatment impoundment in a manner that is protective of the impoundment liner. b) A description of how the Permittee will contain, transport, and dispose of the solids in accordance with all local, state, and federal regulations, including 40 CFR Part 503. c) A schedule for completion of the solids removal and disposal project. <p>The Permittee shall initiate implementation of the plan following approval by NMED.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>
46.	<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. A release is defined as such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property.</p>

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	<p>Within <u>24 hours</u> following discovery of the unauthorized discharge, the Permittee shall verbally notify NMED and provide the following information.</p> <ul 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. <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 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>
47.	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

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	<p>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>

E. CLOSURE PLAN

Closure Actions with Implementation Deadlines

#	Terms and Conditions
48.	<p>Within 60 days of the issuance date of this Discharge Permit (by DATE), the Permittee shall commence the following closure measures on the subsurface irrigation area.</p> <ul style="list-style-type: none"> a) Remove all lines from the treatment system or permanently plug and abandon them in place. b) Remove or demolish all dosing chambers or distribution boxes and re-grade the area with suitable fill to blend with surface topography to promote positive drainage and prevent ponding. <p>The Permittee shall continue groundwater monitoring in monitoring well MW-3 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> <p>If at any time monitoring results show an exceedance of a groundwater quality standard in Section 20.6.2.3103 NMAC or the total nitrogen concentration is greater than 10 mg/L in groundwater, the Permittee shall implement the Contingency Plan required by this Discharge Permit.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>

Permanent Facility Closure Conditions

#	Terms and Conditions
49.	<p>In the event the Permittee chooses not to rehab the package plant, the Permittee shall perform the following closure measures on the package plant.</p>

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	<p>Within <u>90 days</u> of ceasing discharge to the treatment system, the Permittee shall complete the following closure measures.</p> <ul style="list-style-type: none">a) Plug the line leading to the system so that a discharge can no longer occur.b) Evaporate wastewater in the system components or discharge from the system to the reuse area as authorized by this Discharge Permit. The discharge of accumulated solids (sludge) to the reuse area is prohibited.c) Contain, transport, and dispose of solids removed from the treatment system in accordance with all local, state, and federal regulations, including 40 CFR Part 503. The Permittee shall maintain a record of all solids transported for off-site disposal. <p>Within <u>180 days</u> of ceasing to discharge to the treatment system (or unit), the Permittee shall complete the following closure measures.</p> <ul style="list-style-type: none">c) Remove all lines leading to and from the treatment system or permanently plug and abandon them in place.d) Remove or demolish all treatment system components, and re-grade the area with suitable fill to blend with surface topography, promote positive drainage and prevent ponding. <p>[Subsection A of 20.6.2.3107 NMAC, Subsection D of 20.6.2.4103 NMAC, 40 CFR Part 503]</p>
50.	<p>The Permittee shall perform the following closure measures in the event the Facility, or a component thereof, is proposed to be permanently closed.</p> <p>Within <u>60 days</u> of ceasing to discharge to the impoundments, the Permittee shall plug the impoundment influent lines so that a discharge can no longer occur.</p> <p>Within <u>60 days</u> of ceasing to discharge to the impoundments, the Permittee shall discharge wastewater from the impoundment and any other wastewater system component to the wetlands area. The Permittee shall not discharge accumulated solids (sludge) from the impoundment to the wetlands area.</p> <p>Within <u>90 days</u> of ceasing to discharge to the impoundments, the Permittee shall submit a sludge removal and disposal plan to NMED for approval. The Permittee shall implement the plan within 30 days following approval by NMED. The sludge removal and disposal plan shall include the following information.</p> <ul style="list-style-type: none">a) The estimated volume and dry weight of sludge planned for removal and disposal, including measurements and calculations.b) Analytical results for samples of the sludge taken from the impoundment for TKN, NO₃-N, percent total solids, and any other parameters tested (reported in mg/kg, dry weight basis).

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	<p>c) The method of sludge <i>removal</i> from the impoundments.</p> <p>d) The method of <i>disposal</i> for all the sludge (and its contents) removed from the impoundment(s). The method shall comply with all local, state and federal regulations, including 40 CFR Part 503. <i>Note: A proposal that includes the surface disposal of sludge may be subject to Groundwater Discharge Permitting requirements pursuant to 20.6.2.3104 NMAC that are separate from the requirements of this Discharge Permit.</i></p> <p>e) A schedule for completion of sludge removal and disposal not to exceed two years from the date discharge to the impoundments ceased.</p> <p>Within <u>one year</u> following completion of the sludge removal and disposal, the Permittee shall complete the following closure measures.</p> <p>a) Remove all lines leading to and from the impoundments, or permanently plug and abandon the lines in place.</p> <p>b) Remove or demolish any other wastewater system components and re-grade area with suitable fill to blend with surface topography, promote positive drainage and prevent ponding.</p> <p>c) Characterize, remove, and dispose of all solids from the impoundments in accordance with local, state, and federal regulations, and maintain a record of solids transported for off-site disposal, including the volume of solids transported and the disposal location.</p> <p>d) Remove and dispose of the impoundment liners at a solid waste facility. If there is evidence of contaminated soil below the liners, assess the impact, report that assessment to NMED, and mitigate the impacts following NMED approval.</p> <p>e) Fill the impoundment(s) with suitable fill.</p> <p>f) Re-grade the impoundment site and the locations of ancillary equipment, e.g., influent piping, to blend with surface topography, promote positive drainage and prevent ponding.</p> <p>The Permittee shall continue groundwater monitoring until the Permittee meets the requirements of this condition met 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> <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</p>

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	<p>monitoring, the Permittee shall plug and abandon the monitoring wells 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, Subsection D of 20.6.2.4103 NMAC, 40 CFR Part 503]</p>

F. GENERAL TERMS AND CONDITIONS

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51.	<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 • Data and information related to field measurements, sampling, and analysis conducted pursuant to this Discharge Permit, including: <ul style="list-style-type: none"> ○ the dates, location and times of sampling or field measurements; ○ the name and job title of the individuals who performed each sample collection or field measurement;

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	<ul style="list-style-type: none"> ○ the sample analysis date of each sample; ○ the name and address of the laboratory, and the name of the signatory authority for the laboratory analysis; ○ the analytical technique or method used to analyze each sample or collect each field measurement; ○ the results of each analysis or field measurement, including raw data; ○ the results of any split, spiked, duplicate or repeat sample; and ○ 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 minimum of five years. The Permittee shall make the record available to NMED upon request.</p> <p>[Subsections A and D of 20.6.2.3107 NMAC]</p>
52.	<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 Permittee shall submit paper and electronic documents to the NMED Permit Contact identified on the Permit cover page.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>
53.	<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> <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>

#	Terms and Conditions
54.	<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>
55.	<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>
56.	<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>
57.	<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 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.</p>

#	Terms and Conditions
	<p>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>
58.	<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>
59.	<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> <p>[NMSA 1978, § 74-6-5.L]</p>
60.	<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>

#	Terms and Conditions
	<p>[20.6.2.3112 NMAC, NMSA 1978, § 74-6-5.O]</p>
61.	<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>
62.	<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	Roswell Correctional Center
Discharge Permit Number	DP-612
Legally Responsible Party	Anna Silva, Deputy Cabinet Secretary General Services Department Property Control Division 2542 Cerrillos Rd Santa Fe, New Mexico 87505 (505) 827-2181

Treatment, Disposal and Site Information

Primary Waste Type	Domestic
Facility Type	Institution

Treatment Methods

Type	Designation	Description & Comments
Wastewater Treatment System	Package Treatment Plant	IFAS activated sludge package plant capable of treating up to 50,000 gpd of wastewater with the ability to chlorinate for disinfection. Currently not in use.
Impoundments	Synthetically lined aerated impoundments	Two-cell mechanically aerated 60-mil HDPE synthetically impoundment system operated in parallel.

Discharge Locations

Type	Designation	Description & Comments
Land Application	Non-Native Wetlands Area	Non-native wetlands area totaling ~0.75-acres receiving wastewater from the synthetically lined aerated impoundments.
Subsurface Irrigation	SSIS	Irrigation of five zones with a total of 1.3-acres. Infrastructure has collapsed and is required to be closed in accordance with Discharge Permit.

Flow Metering Locations

Type	Designation	Description & Comments
Totalizing Flow Meter	Effluent meter	Meter is located at the effluent discharge from the 5,000-gallon storage tank.

Ground Water Monitoring Locations

Type	Designation	Description & Comments
Monitoring Well	MW-1	4" diameter well; Located hydrologically downgradient and approximately 30 feet of the wetlands area. (33.139856, -104.539208)



**New Mexico Environment Department Ground Water Quality Bureau
Discharge Permit Summary**

Monitoring Well	MW-2	2" diameter well; located hydrologically downgradient and approximately 50 feet of the former effluent infiltration area. (33.139352, -104.539211)
Monitoring Well	MW-3	2" diameter well; located approximately 60 feet hydrologically downgradient of the residential subsurface irrigation area. (33.140505, -104.540891)
Monitoring Well	MW-4	Located 20 to 50 ft hydrologically downgradient of the synthetically lined impoundments. Required to be installed.

Depth-to-Ground Water 76 feet
Total Dissolved Solids (TDS) 2,240 mg/L

Permit Information

Original Permit Issued June 28, 1989
Permit Renewal June 10, 1996
Permit Renewal and Modification April 10, 2007
Permit Renewal and Modification June 7, 2013
Permit Renewal August 13, 2019

Current Action
 Application Received
 Public Notice Published
 Permit Issued (Issuance Date)
 Permitted Discharge Volume

Permit Renewal
 August 13, 2019
 [not yet published]
 [issuance date]
 50,000 gallons per day

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 Andrew Romero
Lead Staff Telephone Number (505) 660-8624
Lead Staff Email andrewc.romero@env.nm.gov or pps.general@env.nm.gov

**NEW MEXICO ENVIRONMENT DEPARTMENT
GROUND WATER POLLUTION PREVENTION SECTION
SYNTHETICALLY LINED LAGOONS - LINER MATERIAL AND SITE PREPARATION
GUIDELINES**

Purpose: These guidelines represent minimum liner material and site preparation requirements for wastewater treatment, storage and evaporation lagoons. These requirements do not apply to lagoons storing hazardous wastes or high strength waste. The Ground Water Quality Bureau may impose additional requirements (e.g., double-lined lagoons with leak detection) for facilities discharging hazardous or high strength waste to lagoons through the development of specific Discharge Permit conditions for such facilities.

Liner Material Requirements:

1. The liner shall be chemically compatible with any material that will contact the liner.
2. The liner material shall be resistant to deterioration by sunlight if any portion of the liner will be exposed.
3. Synthetic liner material shall be of sufficient thickness to have adequate tensile strength and tear and puncture resistance. Under no circumstances shall a synthetic liner material less than 40 mils in thickness be accepted. Any liner material shall be certified by a licensed New Mexico professional engineer and approved by the New Mexico Environment Department (NMED) prior to its installation.

Lagoon Design and Site Preparation Requirements:

1. The system shall be certified by a licensed New Mexico professional engineer and approved by NMED prior to installation.
2. Inside slopes shall be a maximum of 3 (horizontal): 1 (vertical), and a minimum of 4 (horizontal); 1 (vertical).
3. Lagoon volume shall be designed to allow for a minimum of 24 inches of freeboard.
4. The liner shall be installed with sufficient liner material to accommodate shrinkage due to temperature changes. Folds in the liner are not acceptable.
5. To a depth of at least six inches below the liner, the sub-grade shall be free of sharp rocks, vegetation and stubble. In addition, liners shall be placed on a sub-grade of sand or fine soil. The surface in contact with the liner shall be smooth to allow for good contact between liner and sub-grade. The surface shall be dry during liner installation.
6. Sub-grade shall be compacted to a minimum of 90% of standard proctor density.
7. The minimum dike width shall be eight feet to allow vehicle traffic for maintenance.
8. The base of the pond shall be as uniform as possible and shall not vary more than three inches from the average finished elevation.
9. Synthetic liners shall be anchored in an anchor trench in the top of the berm. The trench shall be a minimum of 12 inches wide, 12 inches deep and shall be set back at least 24 inches from the inside edge of the berm.
10. If the lagoon is installed over areas of decomposing organic materials or shallow ground water, a liner vent system shall be installed.
11. Any opening in the liner through which a pipe or other fixture protrudes shall be properly sealed. Liner penetrations shall be detailed in the construction plans and record drawings.
12. A synthetic liner shall not be installed in temperatures below freezing.
13. The liner shall be installed or supervised by an individual that has the necessary training and experience as required by the liner manufacturer.
14. All manufacturer's installation and field seaming guidelines shall be followed.
15. All synthetic liner seams shall be field tested by the installer and verification of the adequacy of the seams shall be submitted to NMED along with the record drawings.

16. Concrete slabs installed on top of the synthetic liner for operational purposes shall be completed in accordance with manufacturer and installer recommendations to ensure liner integrity.
17. NMED shall be notified in advance when construction of the lagoon is to begin. NMED shall be notified upon completion of the liner installation and prior to any discharge to the lagoon to allow NMED the opportunity to inspect the liner installation.
18. Record drawings, final specifications and final lagoon capacity calculations shall be submitted to NMED within 30 days of completion of construction. These plans shall be certified by a licensed New Mexico professional engineer.

**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)



