



MICHELLE LUJAN GRISHAM
GOVERNOR

JAMES C. KENNEY
CABINET SECRETARY

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

August 11, 2022

Adrian Marrufo, S.C.
Acting Director SW/W/WW
City of Gallup WWTF
P.O. Box 1270
Gallup, NM 87305

RE: Discharge Permit Renewal and Invoice, DP-1342, City of Gallup WWTP

Dear Adrian Marrufo:

The New Mexico Environment Department (NMED) issues the enclosed Discharge Permit Renewal, DP-1342, to the City of Gallup (Permittee) pursuant to the New Mexico Water Quality Act and the New Mexico Ground and Surface Water Protection Regulations, 20.6.2 NMAC.

NMED sent the previous City of Gallup WSD Director, Tim Bodell, a draft permit dated May 4, 2022, and also made the draft available to the public for a 30-day comment period. NMED received comments from the City of Gallup and provides the following responses:

Comment: The City of Gallup objects to Condition 16 on Page 9; Condition 17 on Page 10; and Condition 44 on Page 25 for the following reasons:

Monitoring Well No. 4 was constructed according to the NMED monitoring well guidance in 1999 and the static water level was 80 ft below ground surface. Over the past 22 years the groundwater elevation has increased, it seems to fluctuating, and it may return to the original levels therefore there is no need to replace MW No. 4. There is also no need to abandon MW No. 4.

Monitoring Wells No. 5 and No. 6 were constructed and completed under NMED Ground Water Bureau direction in 2012. These wells replaced Monitoring Wells No. 2 and 3 as directed in DP-1342 and DP- 418 dated 2011. The wells deviated from NMED's typical casing/screen schedule to match the perforation interval of the existing monitoring well nos. 2 and 3. The casing, well screen/perforation and filter pack were approved by NMED Ground Water Bureau. Monitoring Well Nos. 5 and 6 deviations from typical NMED Monitoring Well Construction was approved by NMED therefore there is no need to replace MW No.5 and MW No. 6. There is also no need to abandon existing MW No. 5 and No. 6.

Response: As discussed at our 6/6/2022 meeting regarding monitoring well concerns, the goal of NMED's Monitoring Well guidance is to ensure Permittees and NMED can assess the condition of groundwater from the top of the aquifer. Although NMED's 5/9/2012 correspondence to the City of Gallup note that MW-2, MW-3, and MW-4 well logs may indicate geology that might result in confined aquifer conditions, there is no firm confirmation of a confining layer in any of the 2012 correspondence on file. There is no record of the City of Gallup requesting a modification from the Monitoring Well Guidance with respect to screen placement. Specially, the City of Gallup's 6/5/2012 letter to NMED states "...At such time

SCIENCE | INNOVATION | COLLABORATION | COMPLIANCE

Ground Water Quality Bureau | 1190 Saint Francis Drive, PO Box 5469, Santa Fe, New Mexico 87502-5469
Telephone (505) 827-2900 | www.env.nm.gov/gwqb/

ATTACHMENT A

groundwater is encountered, screened intervals will be installed no more than five (5) feet above and 15 feet below the water table." Per the 9/27/2012 DePauli Engineering and Surveying, LLC, monitoring well installation report, water moisture was detected at 80 and 90 feet while drilling MW-5 and MW-6, respectively. Therefore, the screen interval should have been placed at 75 to 95 and 85 to 105 feet, respectively, vs. at 100 to 120 feet for both wells. Regarding the need to plug and abandon existing monitoring wells that are no longer in use, they must be properly plugged and abandoned to avoid potential future ground water contamination pathways.

Comment: The City of Gallup objects to Condition 27 on Page 15:

Arsenic was detected in Monitoring Well No. 5 (or No. 6). This may be a local acute source of arsenic. Resampling for conformation (sic) should be completed after a specific amount of water is diverted from the well. This should be the first step before quarterly sampling is implemented. Also, arsenic is not present in the plant effluent therefore there is no need to perform quarterly sampling for arsenic in the treated wastewater.

Response: As stated in Condition #33, the Permittee shall complete and submit an existing conditions analysis report to NMED to determine if the existing concentration of dissolved arsenic in ground water exceeds the standard of 0.01 mg/L in Section 20.6.2.3103 NMAC. The following language has been added to Condition #27:

If the results of four consecutive quarterly sampling events document no dissolved arsenic above 0.01 mg/L, and elevated dissolved arsenic is determined to be an existing groundwater condition per Condition #33, the Permittee may request to remove quarterly dissolved arsenic sampling.

Enclosed is an invoice for \$7,000. This fee is due 30 days from the date of this letter. If you wish to make annual payments, you may instead pay one-fifth of the applicable permit fee \$1,400 and pay this amount annually thereafter until expiration or termination of the Discharge Permit, Pursuant to 20.6.2.3114(F) NMAC. In addition, NMED now offers an online payment option. If you would like additional information, please contact Howard Gurule at (505) 490-2352 or howard.gurule@state.nm.us or nmenv-gwqb-financials@state.nm.us.

NMED advises you to submit an application for renewal or renewal/modification at least 180 days prior to August 10, 2027, the end of the Discharge Permit term, in order to avoid a lapse in permit coverage which could result in enforcement action.

This approval is issued pursuant to WQCC Regulation 20.6.2.3109 NMAC, and the NMED Delegation Order dated May 24, 2021, through which the Cabinet Secretary has delegated this authority to sign a Discharge Permit to the Chief of the Ground Water Quality Bureau. If you have any questions, please contact Lynette Guevara at (505) 629-8811 or lynette.guevara@state.nm.us, or submit an email to pps.general@state.nm.us. Thank you for your cooperation during the application review process.

Sincerely,

Justin Ball Digitally signed by Justin Ball
Date: 2022.08.11 18:36:13
+06'00'

Justin D. Ball, Chief
Ground Water Quality Bureau

Encl: Discharge Permit Renewal, DP-1342
cc: William Chavez, Acting District Manager, NMED District I
Eric Hall, DWB, UOCP

State of New Mexico Environment Department
Ground Water Quality Bureau
PO Box 5469
Santa Fe, NM 87502-5469

INVOICE

Primary Billing Party:

Adrian Marrufo, S.C.
Acting Director SW/W/WW
City of Gallup WWTF
P.O. Box 1270
Gallup, NM 87305
amarrufo@gallupnm.gov

INVOICE DUE DATE: September 11, 2022 (30 days from issuance date)

ASSESSMENTS

Discharge Permit Renewal, DP-1342, City of Gallup WWTP
Discharge Fee \$7,000

CREDITS

Payment - received with application

BALANCE DUE \$7,000

Cut Here and Include Lower Portion with Payment

Agency Interest: DP-1342, City of Gallup WWTP

Primary Billing Party:

Adrian Marrufo, S.C.
Acting Director SW/W/WW
City of Gallup WWTF
P.O. Box 1270
Gallup, NM 87305
amarrufo@gallupnm.gov

INVOICE DUE DATE: September 11, 2022 (30 days from issuance date)

Invoice Amount: \$7,000

Amount Enclosed _____

Please make checks payable to:

New Mexico Environment Department

*****PLEASE ALSO NOTE "DP-1342, Permit Fee" ON YOUR CHECK *****

Mail payments to:

NMED Ground Water Quality Bureau
PO Box 5469
Santa Fe, NM 87502-5469

NMED Federal Tax ID#: 85-6000565



NEW MEXICO
ENVIRONMENT DEPARTMENT
Ground Water Quality Bureau
1190 Saint Francis Drive / PO Box 5469
Santa Fe, NM 87502-5469
Phone (505) 827-2900 Fax (505) 827-2965
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GROUND WATER QUALITY BUREAU
DISCHARGE PERMIT
Issued under 20.6.2 NMAC

Facility Name: City of Gallup Wastewater Treatment Facility
Discharge Permit Number: DP-1342
Facility Location: 800 Sweetwater Place
Gallup, NM

County: McKinley

Permittee: City of Gallup
Mailing Address: P.O. Box 1270
Gallup, NM 87305

Facility Contact: Adrian Marrufo, S.C., Acting Director SW/W/WW
Telephone Number/Email: 505-726-6041 / amarrufo@gallupnm.gov

Permitting Action: Renewal
Permit Issuance Date: August 11, 2022
Permit Expiration Date: August 10, 2027

NMED Permit Contact: Lynette Guevara
Telephone Number/Email: 505-629-8811 / lynette.guevara@state.nm.us or
pps.general@state.nm.us

Justin Ball Digitally signed by Justin Ball
Date: 2022.08.11 18:36:50
-06'00'

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)

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this groundwater discharge permit Renewal (Discharge Permit or DP-1342) to the City of Gallup (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 City of Gallup Wastewater Treatment Facility (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 City of Gallup wastewater treatment facility (WWTF) receives and treats domestic wastewater at a volume of up to 3.5 million gallons per day (MGD). Up to 1.25 MGD of treated wastewater (reclaimed domestic wastewater) stores in a reuse wet well prior to transfer to other entities for reuse purposes authorized by NMED under separate Discharge Permits. Temporary discharges occur in and around the City of Gallup including for dust control, construction purposes, and fire suppression that NMED has determined do not require a Discharge Permit when transferred to users in accordance with this Discharge Permit.

The permittee maintains a synthetically lined impoundment (Reserve Basin) to temporarily store diurnal influent peaks or storm flows from major precipitation events under emergency conditions only. Treated wastewater discharges to the Puerco River pursuant to National Pollutant Discharge Elimination System (NPDES) permit NM0020672.

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 800 Sweetwater, Gallup, in Section 23, Township 15N, Range 19W, in McKinley County. A discharge at the Facility is most likely to affect groundwater at a depth of approximately 55 feet and having a pre-discharge total dissolved solids (TDS) concentration of approximately 1,000 milligrams per liter.

NMED issued the original Discharge Permit to the Permittee on November 15, 1996, and subsequently renewed the Permit on April 11, 2001, and November 20, 2011. The application (i.e., discharge plan) associated with this Discharge Permit consists of the materials submitted by the City of Gallup dated June 17, 2016, 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 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
mL	milliliters	WQA	New Mexico Water Quality Act
MPN	most probable number	WQCC	Water Quality Control Commission

Abbreviation	Explanation	Abbreviation	Explanation
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 receive and treat up to 3.5 MGD of domestic wastewater using a WWTF. This Discharge Permit authorizes the Permittee to discharge up to 1.25 MGD of treated wastewater (reclaimed domestic wastewater) to a reuse wet well prior to transfer to other entities for reuse purposes authorized by NMED under separate Discharge Permits. This Discharge Permit also authorizes temporary discharges in and around the City of Gallup including for dust control, construction purposes, and fire suppression and other uses that NMED has determined do not require a Discharge Permit when transferred to users in accordance with this Discharge Permit. The authorized delivery point for these discharges is at the Facility.

Treated wastewater discharges to the Puerco River pursuant to National Pollutant Discharge Elimination System (NPDES) permit NM0020672.

This Discharge Permit does not authorize any discharge to the abandoned unlined 1.3-million-gallon flow equalization basin. This Discharge Permit includes requirements for the Permittee to complete full closure of the abandoned basin during this permit term.

[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]

Operating Conditions

#	Terms and Conditions															
3.	The Permittee shall ensure that treated wastewater discharged from the final treatment process does not exceed the following discharge limit. Total Nitrogen: 15 mg/L [Subsection C of 20.6.2.3109 NMAC]															
4.	The Permittee shall ensure that Class 1B reclaimed domestic wastewater discharged from the final treatment process does not exceed the following discharge limits. <table border="1" data-bbox="310 1530 1164 1812"> <thead> <tr> <th>Test</th> <th>30-day Average</th> <th>Maximum</th> </tr> </thead> <tbody> <tr> <td>E. coli bacteria</td> <td>63 CFU or MPN/100 mL</td> <td>126 CFU or MPN/100 mL</td> </tr> <tr> <td>BOD₅</td> <td>30 mg/L</td> <td>45 mg/L</td> </tr> <tr> <td>TSS:</td> <td>30 mg/L</td> <td>45 mg/L</td> </tr> <tr> <td>TRC</td> <td>Monitor Only</td> <td>Monitor Only</td> </tr> </tbody> </table>	Test	30-day Average	Maximum	E. coli bacteria	63 CFU or MPN/100 mL	126 CFU or MPN/100 mL	BOD ₅	30 mg/L	45 mg/L	TSS:	30 mg/L	45 mg/L	TRC	Monitor Only	Monitor Only
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#	Terms and Conditions
	[Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]
5.	<p>The Permittee shall meet the following requirements for any temporary above-ground uses of reclaimed domestic wastewater.</p> <ul style="list-style-type: none"> a) Restrict access to the reclaimed domestic wastewater distribution system (standpipe). Transfer of reclaimed domestic wastewater to other users shall only be done by the Permittee or its designee. The Permittee shall prohibit public access to the reclaimed domestic wastewater system. b) Notify all recipients of reclaimed domestic wastewater for temporary uses in writing of the following. <ul style="list-style-type: none"> i. Reclaimed domestic wastewater is approved only for construction activities; soil compaction; mixing of mortars, slurries or cement; dust control on roads and construction sites; animal watering; and irrigation of non-food crops. ii. Reclaimed domestic wastewater shall be discharged by gravity flow or under low pressure in a manner that minimizes misting and does not results in excessive standing or ponding of wastewater. iii. If the discharge method results in misting, the area(s) receiving the reclaimed domestic wastewater must be 100 feet from areas accessible to the public. iv. The area receiving the discharge must be 300 feet from potable water supply wells. v. Transport vehicles and storage tanks containing reclaimed domestic wastewater shall have signs, in English and Spanish, identifying the contents as non-potable water and advising against consumption. vi. The user shall not apply of reclaimed domestic wastewater at times when the receiving area is saturated or frozen. <p>The Permittee shall maintain a log of all recipients of reclaimed domestic wastewater and shall provide the log to NMED upon request.</p> <p>[20.6.2.3109 NMAC]</p>
6.	<p>The Permittee shall institute a backflow prevention method to protect wells and public water supply systems from contamination by reclaimed domestic wastewater prior to discharging to the reuse area. Backflow prevention shall be achieved by a total disconnect (physical air gap separation between the discharge pipe and the liquid surface at least twice the diameter of the discharge pipe), or by a reduced pressure principal backflow prevention assembly (RP) installed on the line between the fresh water supply wells or public water supply and the reclaimed domestic wastewater delivery system. The Permittee shall maintain backflow prevention at all times.</p> <p>The Permittee shall have RP devices inspected and tested by a certified backflow prevention assembly tester at the time of installation, repair or relocation and at least</p>

#	Terms and Conditions
	<p>on an annual basis thereafter. The backflow prevention assembly tester shall have successfully completed a 40-hour backflow prevention course based on the University of Southern California's Backflow Prevention Standards and Test Procedures, and obtained certification demonstrating completion. The Permittee shall have all malfunctioning RP devices repaired or replaced within 30 days of discovery. The Permittee shall cease using supply lines associated with the RP device until repair or replacement is complete.</p> <p>The Permittee shall maintain copies of the inspection and maintenance records and test results for each RP device associated with the backflow prevention program at a location available for inspection by NMED.</p> <p>[Subsection C of 20.6.2.3109 NMAC]</p>
7.	<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>
8.	<p>The Permittee shall install and 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>
9.	<p>The Permittee shall maintain the Reserve Basin impoundment liner to avoid conditions that could affect the liner or the structural integrity of the impoundment. 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.

#	Terms and Conditions
	<p>The Permittee shall routinely control vegetation growing around the impoundment by mechanical removal that is protective of the impoundment liner.</p> <p>The Permittee shall visually inspect the impoundment 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>
10.	<p>The Permittee shall preserve a minimum of two feet of freeboard, i.e., the liquid level in the Reserve Basin and the elevation of the lowest-most top of the impoundment liner.</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>
11.	<p>The Permittee shall properly manage all solids generated by the treatment system to maintain effective operation of the system by removing solids as necessary and in accordance with associated equipment manufacturer's specifications. The Permittee shall contain, transport and dispose of solids removed from the treatment process in accordance with all local, state, and federal regulations. The Permittee shall maintain records of solid disposal.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>
12.	<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>

#	Terms and Conditions
	[Subsection C of 20.6.2.3109 NMAC, 20.7.4 NMAC]

B. MONITORING AND REPORTING

#	Terms and Conditions
13.	The Permittee shall conduct the monitoring, reporting, and other requirements listed below in accordance with the monitoring requirements of this Discharge Permit. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
14.	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. [Subsection B of 20.6.2.3107 NMAC]

Due Dates for Monitoring Reports

15.	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: <ul style="list-style-type: none"> • January 1st through March 31st – due by May 1st; • April 1st through June 30th – due by August 1st; • July 1st through September 30th – due by November 1st; and • October 1st through December 31st – due by February 1st. [Subsection A of 20.6.2.3107 NMAC]
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Monitoring Actions with Implementation Deadlines

#	Terms and Conditions
16.	Within 60 days following the issuance date of this Discharge Permit (by October 10, 2022), 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. <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 wells including the distance (in feet) and direction of the monitoring wells from the edge

#	Terms and Conditions
	<p>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 leachfield; and 30 feet southeast of the reuse area 150 degrees from north.</p> <p>c) A statement describing the groundwater flow direction beneath the Facility, and documentation and/or data supporting the determination.</p> <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>Within 180 days of the issuance date of this Discharge Permit (by February 7, 2023), the Permittee shall install the following new monitoring wells.</p> <p>a) MW-4R, intended to be located hydrologically upgradient (north) of the Facility and downgradient of the abandoned flow equalization basin.</p> <p>b) MW-5R, intended to be located hydrologically downgradient of the NPDES Permit #NM0020672 Outfall 001.</p> <p>c) MW-6R, intended to be located 20-50 feet hydrologically downgradient of the synthetically lined reserve impoundment.</p> <p>The Permittee shall complete the well(s) in accordance with the attached Monitoring Well Guidance or alternative methods submitted for approval. 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>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>Within 240 days of the issuance date of this Discharge Permit (by April 8, 2023), 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>

#	Terms and Conditions
	<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>
19.	<p>The Permittee shall sample treated wastewater, reclaimed domestic wastewater for the presence of perfluorinated chemicals (PFCs).</p> <p>Within 180 days of the issuance date of this Discharge Permit (by February 7, 2023), the Permittee shall collect a single grab sample from final treatment process. 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>

Groundwater Monitoring Conditions

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20.	<p>The Permittee shall develop a groundwater elevation contour map, i.e., potentiometric surface map, on a semi-annual 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 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 monitoring reports due by February 1st and August 1st each year.</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 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(s) prior to pump placement.</p> <p>[Subsections A and D of 20.6.2.3107 NMAC]</p>

Facility Monitoring Conditions

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22.	<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 treatment facility each month using a primary measuring device (equipped with head sensing,</p>

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	<p>totalizing and chart recording/data logging mechanism). The Permittee shall submit the totalized average daily and peak daily influent volumes for each 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>
23.	<p>The Permittee shall measure the totalized, average daily and peak daily volume of treated wastewater discharged from the WWTF to the Puerco River using a primary measuring device (equipped with head sensing, totalizing and chart recording/data logging mechanism). The Permittee shall submit the totalized average daily and peak daily influent volumes for each 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>
24.	<p>The Permittee shall on a monthly basis measure the volume of reclaimed wastewater transferred from the WWTF to any reuse areas authorized for reuse under separate Discharge Permits using a totalizing flow meter. The meter(s) shall be located on the transfer line(s) at the WWTF.</p> <p>The Permittee shall maintain a log that records the date that discharges occur to <i>each</i> location and the monthly totalizing meter readings and units of measurement. The Permittee shall use the log to calculate the total monthly volume of reclaimed domestic wastewater discharged to <i>each</i> location. 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>
25.	<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 November 9, 2022), and then every 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> <p>a) The location and meter identification.</p>

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	<p>b) The method of flow meter field calibration employed.</p> <p>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.</p> <p>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.</p> <p>e) Any flow meter repairs made during the previous year or during field calibration.</p> <p>f) The name of the individual performing the calibration and the date of the calibration.</p> <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>
26.	<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>
27.	<p>The Permittee shall collect samples of treated wastewater from following the final treatment process on a quarterly basis and analyze the samples for:</p> <ul style="list-style-type: none"> • TKN; • NO₃-N; • TDS; • Cl, and • Dissolved arsenic.

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	<p>If the results of four consecutive quarterly sampling events indicate no dissolved arsenic above 0.01 mg/L and if elevated dissolved arsenic is determined to be an existing groundwater condition per Condition #33, the Permittee may request to remove quarterly dissolved arsenic sampling.</p> <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 the laboratory analytical data results, including the QA/QC summary and Chain of Custody, to NMED in the subsequent quarterly monitoring report.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]</p>
28.	<p>During any week that the discharge of reclaimed domestic wastewater occurs, the Permittee shall perform the following analyses on the wastewater samples collected at the final treatment process using the following sampling method and frequency:</p> <ul style="list-style-type: none"> • E. coli bacteria: grab sample at peak daily flow once per week; • BODs: six-hour composite sample once per week; • TSS: six-hour composite sample once per week; and • TRC concentrations: record whenever collecting bacteria samples. <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 the laboratory analytical data results, including the QA/QC summary and Chain of Custody, and a copy of the log of TRC concentrations to NMED in the subsequent quarterly monitoring report.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsections B, C and H of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]</p>
29.	<p>On an annual basis, the Permittee shall collect a 24-hour flow weighted composite sample (except as noted for pH) of treated wastewater from the final treatment process and analyze the sample for the following inorganic contaminants (dissolved fraction, except as noted):</p> <ul style="list-style-type: none"> • aluminum (CAS 7429-90-5) • antimony (CAS 7440-36-0) • arsenic (CAS 7440-38-2) • barium (CAS 7440-39-3) • beryllium (CAS 7440-41-7) • boron (CAS 7440-42-8) • cadmium (CAS 7440-43-9) • molybdenum (CAS 7439-98-7) • total mercury (nonfiltered) (CAS 7439-97-6) • pH (instantaneous) • nickel (CAS 7440-02-0)

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	<ul style="list-style-type: none"> • chromium (CAS 7440-47-3) • cobalt (CAS 7440-48-4) • copper (CAS 7440-50-8) • cyanide CAS 57-12-5) • fluoride (CAS 16984-48-8) • iron (CAS 7439-89-6) • lead (CAS 7439-92-1) • manganese (CAS 7439-96-5) • radioactivity: combined radium-226 & radium-228 (CAS 15262-20-1) • selenium (CAS 7782-49-2) • silver (CAS 7440-224) • sulfate (CAS 14808-79-8) • thallium (CAS 7440-28-0) • uranium (CAS 7440-61-1) • zinc (CAS 7440-66-6) <p>The Permittee shall properly collect, prepare, preserve, transport and analyzed the samples in accordance with the methods authorized in this Discharge Permit. The Permittee shall analyze the sample using methods with reporting limits that are less than the corresponding numerical groundwater standards identified in 20.6.2.3103 NMAC.</p> <p>The Permittee shall submit a summary of measured concentrations compared with the corresponding groundwater standards, a copy of the laboratory report including the laboratory analytical data results, the QA/QC summary and the Chain of Custody, to NMED in the monitoring reports due by August 1st each year.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]</p>
30.	<p>On an annual basis, the Permittee shall collect a grab sample of treated wastewater from the final treatment process and analyze the non-filtered sample for the following organic contaminants:</p> <ul style="list-style-type: none"> • atrazine (CAS 1912-24-9) • benzene (CAS 71-43-2) • benzo-a-pyrene (CAS 50-32-8) • carbon tetrachloride (CAS 56-23-5) • chloroform (CAS 67-66-3) • 1,2-dichlorobenzene (CAS 95-50-1) • 1,4-dichlorobenzene (CAS 106-46-7) • 1,1-dichloroethane (CAS 75-34-3) • 1,2-dichloroethane (EDC, CAS 107-06-2) • ethylene dibromide (EDB, CAS 106-93-4) • methylene chloride (CAS 75-09-2) • <u>PAHs</u>: total naphthalene (CAS 91-20-3) plus monomethylnaphthalenes • phenols • polychlorinated biphenyls (PCBs, CAS 1336-36-3) • pentachlorophenol (CAS 87-86-5) • toluene (CAS 108-88-3) • styrene (CAS 100-42-5) • 1,1,2,2-tetrachloroethane (CAS 79-34-5)

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	<ul style="list-style-type: none"> • 1,1-dichloroethene (1,1-DCE, CAS 75-35-4) • cis-1,2-dichloroethene (CAS 156-59-2) • trans-1,2-dichloroethene (CAS 156-60-5) • 1,2-dichloropropane (PDC, CAS 78-87-5) • 1,4-dioxane (CAS 123-91-1) (using EPA Method 8270D-SIM) • ethylbenzene (CAS 100-41-4) • tetrachloroethene (PCE, CAS 127-18-4) • 1,2,4-trichlorobenzene (CAS 120-82-1) • 1,1,1-trichloroethane (1,1,1-TCA, CAS 71-55-6) • 1,1,2-trichloroethane (CAS 79-00-5) • trichloroethene (TCE, CAS 79-01-6) • vinyl chloride (CAS 75-01-4) • total xylenes (CAS 1330-20-7) <p>The Permittee shall properly collect, prepare, preserve, transport and analyze the samples in accordance with the methods authorized in this Discharge Permit. The Permittee shall analyze samples using methods with reporting limits that are less than the corresponding numerical groundwater standards identified in 20.6.2.3103 NMAC. The reporting limit for 1,4-dioxane shall be less than the Tap Water Screening Level for 1,4-dioxane 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).</p> <p>If the results of two consecutive sampling events indicate no detection of 1,4-dioxane above the reporting limit, the Permittee may request to reduce the sampling frequency.</p> <p>The Permittee shall submit a summary of measured concentrations compared with the corresponding groundwater standards, and a copy of the laboratory report including the laboratory analytical data results, the QA/QC summary and the Chain of Custody to NMED in the monitoring reports due by August 1st each year.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]</p>
31.	<p>On an annual basis, the Permittee shall collect a grab sample of untreated wastewater from the inlet of the treatment facility (prior to any treatment) and analyze the sample for fats, oils and grease (FOG).</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, QA/QC summary, and the Chain of Custody to NMED in the monitoring reports due by August 1st each year.</p>

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	[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]
32.	<p>The Permittee shall submit records of solids disposal, including a copy of all Discharge Monitoring Reports (i.e., DMRs) required by the EPA pursuant to 40 CFR Part 503, 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. ADDITIONAL STUDIES OR CORRECTIVE ACTION/ABATEMENT PLANS

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33.	<p>The Permittee shall complete and submit an existing conditions analysis report to NMED for review. The report shall analyze data and use appropriate statistical analysis to determine if the arsenic exceedances reported in MW-5 fall within two standard deviations of the existing conditions at the site as defined by 20.6.2.3101 (A)(2) NMAC.</p> <p>If the report determines that existing conditions do not exist, the Permittee shall submit to NMED a corrective action plan in accordance with the contingency conditions of this Discharge Permit.</p> <p>[Subsection (A)(2) of 20.3.2.3101 NMAC]</p>

D. CONTINGENCY PLAN

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34.	<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>

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	<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> <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>
35.	<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> <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 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 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>
36.	<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</p>

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	<p>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 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 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>
37.	<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; and ii) 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. 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

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	<p>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 limit is continuing to be exceeded. 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>
38.	<p>In the event that analytical results of a reclaimed domestic wastewater sample indicate an exceedance of any of the maximum discharge limits for BOD₅, TSS, fecal coliform or E. coli bacteria set by this Discharge Permit, the Permittee shall collect and submit for analysis a second sample within 24 hours after becoming aware of the exceedance. In the event the second sample results confirm the exceedance of the maximum discharge limits, the Permittee shall implement the Contingency Plan below.</p> <p>In the event that analytical results of a reclaimed domestic wastewater sample indicate an exceedance of any of the 30-day average discharge limits for BOD₅, TSS, or fecal coliform or E. coli bacteria set by this Discharge Permit (i.e., confirmed exceedance), the Permittee shall implement the Contingency Plan below.</p> <p><u>Contingency Plan</u></p> <ol style="list-style-type: none"> a) Within 24 hours of becoming aware of a confirmed exceedance (as identified above), the Permittee shall: <ol style="list-style-type: none"> i) notify NMED that the Permittee is implementing the Contingency Plan; and ii) submit copies of the recent analytical results indicating an exceedance to NMED. b) The Permittee shall immediately cease discharging reclaimed domestic wastewater to any reuse transfer lines if the fecal coliform or E. coli bacteria maximum limit is exceeded. 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 and shall correct any abnormalities discovered. The Permittee shall submit a report detailing the corrections made to NMED within 30 days following correction. <p>When the analytical results from samples of reclaimed domestic wastewater, sampled</p>

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	<p>as required by this Discharge Permit, no longer indicate an exceedance of any of the maximum discharge limits, the Permittee may resume discharging reclaimed domestic wastewater to the reuse area.</p> <p>If a Facility is required to implement the Contingency Plan more than two times in a 12-month period, the Permittee shall propose to modify operational procedures and/or upgrade the treatment process to achieve consistent compliance with the maximum and 30-day average discharge limits by submitting CAP for NMED approval. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions and submit the CAP within 60 days following receipt of the analytical results confirming the exceedance. The Permittee shall initiate implementation of the CAP following approval by NMED. NMED may require, prior to recommencing discharge to the reuse area, additional sampling of any stored reclaimed domestic wastewater.</p> <p>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</p>
39.	<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>
40.	<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 by submitting a short-term Corrective Action Plan (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>

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	<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 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>
41.	<p>In the event the average solids accumulation exceeds one-third of the maximum liquid depth in the impoundment, 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 includes 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>
42.	<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> <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.

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	<p>e) A description of the unauthorized discharge, including its estimated chemical composition.</p> <p>f) The estimated volume of the unauthorized discharge.</p> <p>g) Any actions taken to mitigate immediate damage from the unauthorized discharge.</p> <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> <p>a) A description of proposed actions to mitigate damage from the unauthorized discharge.</p> <p>b) A description of proposed actions to prevent future unauthorized discharges of this nature.</p> <p>c) A schedule for completion of proposed actions.</p> <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>
43.	<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>

E. CLOSURE PLAN

Closure Actions with Implementation Deadlines

#	Terms and Conditions
44.	<p>Within 240 days of the issuance date of this Discharge Permit (by April 8, 2023), the Permittee shall properly plug and abandon the following monitoring wells.</p> <ul style="list-style-type: none"> a) MW-4, located hydrologically upgradient (north) of the Facility and downgradient of the abandoned flow equalization basin. b) MW-5, located hydrologically downgradient of the NPDES Permit #NM0020672 Outfall 001. c) MW-6, located 20-50 feet hydrologically downgradient of the synthetically lined reserve impoundment. <p>The Permittee shall abandon monitoring wells in accordance with the attachment titled <i>New Mexico Environment Department Ground Water Quality Bureau Monitoring Well Construction and Abandonment Guidelines</i>, Revision 1.1, March 2011, and all applicable local, state, and federal regulations, including 19.27.4 NMAC.</p> <p>The Permittee shall submit documentation describing the well abandonment procedures 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>
45.	<p>Within 30 days of the issuance date of this Discharge Permit (by September 10, 2022), the Permittee shall commence the following closure measures on the <i>abandoned flow equalization basin</i> impoundment.</p> <ul style="list-style-type: none"> a) Cease discharging to the impoundment. b) Temporarily plug all lines leading to and from the impoundment. c) Drain wastewater from the impoundment and any other wastewater system components and dispose of it in accordance with all local, state and federal regulations, or evaporate remaining wastewater from the impoundment. <p>Within 90 days of the issuance date of this Discharge Permit (by November 9, 2022), the Permittee shall submit a sludge removal and disposal plan to NMED for approval. 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 to be removed and disposed of, including measurements and calculations.

#	Terms and Conditions
	<p>b) Laboratory analytical data 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).</p> <p>c) The method(s) of sludge <i>removal</i> from the impoundment.</p> <p>d) The method(s) of <i>disposal</i> for all of the sludge (and its contents) removed from the impoundment. The method(s) 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 impoundment ceased.</p> <p>The Permittee shall initiate implementation of the plan within 30 days following approval by NMED.</p> <p>Within <u>one year</u> following completion of the sludge removal and disposal, the Permittee shall complete the following closure measures for the impoundment.</p> <p>a) Remove all lines leading to and from the impoundment, or permanently plug and abandon them in place.</p> <p>b) Perforate or remove the impoundment liner.</p> <p>c) Fill the impoundment with suitable fill.</p> <p>d) Re-grade the impoundment site to blend with surface topography, promote positive drainage and prevent ponding.</p> <p>The Permittee shall continue to sample groundwater monitoring wells associated with the closed impoundment 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, the Permittee shall implement the Contingency Plan required by this 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>

Permanent Facility Closure Conditions

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46.	<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 impoundment(s), 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 impoundment(s), the Permittee shall evaporate or drain all wastewater from the impoundment and any other wastewater system component and disposed of it in accordance with all local, state, and federal regulations. The Permittee shall not discharge accumulated solids (sludge) from the impoundment to any reuse area.</p> <p>Within <u>90 days</u> of ceasing to discharge to the impoundment(s), 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> <ol 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).c) The method of sludge <i>removal</i> from the impoundment(s).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>e) A schedule for completion of sludge removal and disposal not to exceed two years from the date discharge to the impoundment(s) ceased. <p>Within <u>one year</u> following completion of the sludge removal and disposal, the Permittee shall complete the following closure measures.</p> <ol style="list-style-type: none">a) Remove all lines leading to and from the impoundment(s), or permanently plug and abandon the lines in place.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.c) Characterize, remove and dispose of all solids from the impoundments in

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	<p>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 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, Subsection D of 20.6.2.4103 NMAC, 40 CFR Part 503]</p>

F. GENERAL TERMS AND CONDITIONS

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47.	<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;

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	<ul style="list-style-type: none"> • 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; ○ 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 the 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>
48.	<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.,</p>

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	<p>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>
49.	<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>
50.	<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>
51.	<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>
52.	<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</p>

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	<p>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>
53.	<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. 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>
54.	<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</p>

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	<p>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>
55.	<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>
56.	<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>
57.	<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>
58.	<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</p>

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	<p>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 Gallup WWTF
Discharge Permit Number	DP-1342
Legally Responsible Party	City of Gallup P.O. Box 1270 Gallup, NM 87305 928.566.2777

Treatment, Disposal and Site Information

Primary Waste Type	Domestic
Facility Type	Municipal WWTF

Treatment Methods

Type	Designation	Description & Comments
Wastewater Treatment System	Gallup Municipal WWTF	Conventional Activated Sludge with oxic/anoxic nitrogen removal, filtration, chlorination/dechlorination, aerobic sludge digestion and surface disposal or sludge drying (Class A)

Discharge Locations

Type	Designation	Description & Comments
Impoundment	Flow Equalization Basin	1.3 MG. Clay lined with concrete skirt. Discharge to this basin is prohibited. Full closure required this permit term.
Impoundment	Reserve Basin	Temporarily stores diurnal influent peaks and storm water from major precipitation events in emergency situations only.
Sludge Drying Beds	Sludge Beds	4 concrete-walled, asphalt-lined drying beds.
WWTF Wash and Irrigation Water	Plant Wash Water	Treatment plant process, wash, and landscape irrigation.
Outfall	Outfall 001	Regulated pursuant to NPDES permit #NM0020672

Flow Metering Locations

Type	Designation	Description & Comments
Open Channel Device	Influent flow meter	Parshall flume, prior to screw pumps
Open Channel Device	Effluent flow meter	Parshall flume, prior to outfall
Totalizing Flow Meter	Reclaimed wastewater flow meter	On the transfer line from the WWTF to the Fox Run Golf Course



New Mexico Environment Department Ground Water Quality Bureau
Discharge Permit Summary

Ground Water Monitoring Locations

Type	Designation	Description & Comments
Monitoring Well	MW-4/4R	North of the WWTF; downgradient of the flow equalization basin.
Monitoring Well	MW-5/5R	Located hydrologically downgradient of NPDES Outfall 001
Monitoring Well	MW-6/6R	Located 20 to 50 feet hydrologically downgradient of the reserve impoundment

Depth-to-Ground Water 55 feet
Total Dissolved Solids (TDS) 1,000 mg/L

Permit Information

Original Permit Issued November 15, 1996
Permit Renewal April 1, 2001
Permit Renewal November 20, 2011

Current Action **Renewal**
Application Received June 17, 2016
Public Notice Published May 4, 2022
Permit Issued (Issuance Date) August 11, 2022
Permitted Discharge Volume 3.5 MGD

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 Lynette Guevara
Lead Staff Telephone Number (505) 629-8811
Lead Staff Email lynette.guevara@state.nm.us

Groundwater Discharge Permit Guidance for Synthetically Lined Lagoons – Liner Material and Site Preparation

This guidance document represents 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 groundwater, 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.

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.

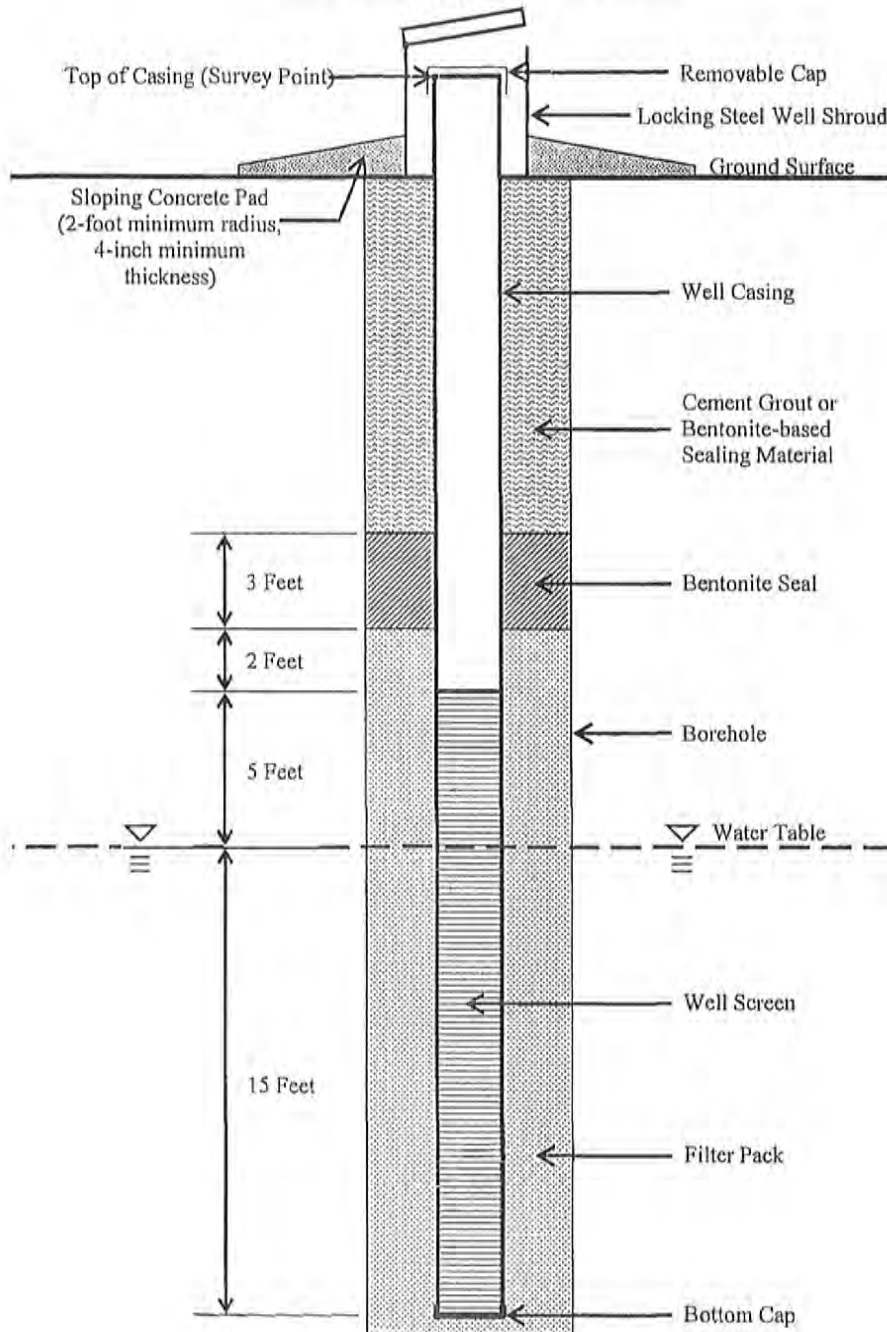
Abandonment:

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)



STATE OF NEW MEXICO
WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF THE PETITION FOR)	
A PERMIT REVIEW OF DISCHARGE)	
PERMIT RENEWAL, DP 1342)	WQCC NO. _____
CITY OF GALLUP,)	
PETITIONER)	
V.)	
NEW MEXICO ENVIRONMENT)	
DEPARTMENT,)	
RESPONDENT)	

ATTACHMENT B: VERIFICATION OF MARC DEPAULI, P.E./P.S.

Marc DePauli, being duly sworn, deposes and states as follows:

1. I am over the age of eighteen and have personal knowledge of the matters set forth in this verification.

2. My name is Marc DePauli. I am a licensed Professional Engineer and Surveyor in the State of New Mexico. I am the principal civil engineer and land surveyor of DePauli Engineering and Surveying, LLC. We specialize in civil engineering and land surveying, including planning, and design of utility scale civil engineering projects, water resources and management and wastewater treatment.

3. I have been providing engineering services in Gallup, New Mexico, and the surrounding areas for over 29 years. I am currently providing engineering services on behalf of the City of Gallup for the Navajo Gallup Water Supply Project (“NGWSP”), a billion-dollar Bureau of Reclamation project that is nearing completion in order to convey a reliable municipal and industrial water supply from the San Juan River. The NGWSP will deliver potable water to the eastern section of the Navajo Nation, southwestern portion of the Jicarilla Apache Nation, and the city of Gallup, New Mexico. The Project consists of approximately 300 miles of pipeline, nineteen pumping plants, and two water treatment plants. The NGWSP is designed to provide a

long-term sustainable water supply to meet the future (40-year) population needs of approximately 250,000 people in these communities through the annual delivery of 37,764 acre-feet of water from the San Juan Basin. A more complete description of my qualifications and proceedings in which I have been involved is included at the end of my verification as Exhibit MD-1.

4. I am uniquely qualified to testify as to site specific conditions that exist related to this matter because of my background and experience.

5. DePauli Engineering and Surveying, LLC was initially hired by the City of Gallup, New Mexico (“Gallup” or “the City”) to assist with installation of two (2) new monitoring wells that were required as part of the Discharge Permit 1342 (“DP-1342”) renewal in 2012.

6. DP-1342 was issued by the New Mexico Environment Department (“NMED”) Ground Water Quality Bureau (“GWQB”) in order to monitor any ground water impacts that could be attributed to the Gallup Wastewater Treatment Plant (“WWTP”) by its surface discharge to the Puerco River.

7. The surface discharge to the Puerco River is regulated by the Environmental Protection Agency (“EPA”), Region 6. The EPA has separate, stringent, discharge requirements in order to discharge into the Puerco River. DP-1342 focuses on specific potential impacts to ground water quality by the surface discharges. That is why this permit was reviewed by the GWQB and not the EPA.

8. I was personally involved in multiple facets of DP-1342 from its reissuance in 2012, to the reapplication in 2016, and ongoing monitoring and construction efforts related to the WWTP. I oversaw the monitoring well design, reviewed monitoring well “as-built” drawings, and prepared the 2016 DP-1342 application permit package for submission to NMED and participated

in all substantial discussions with Gallup and the NMED up to the reissuance of DP-1342 on August 11, 2022.

Objection No. 1 – Conditions 16, 17 and 44 - The requirement to plug, abandon, and replace monitoring wells 4, 5, and 6.

9. Monitoring Well (“MW”) 4 was constructed according to the NMED monitoring well guidance in 1999 and the static water level was 80’ below ground level (bgl) and was perforated from 75’ to 95’. Current information available to the City demonstrates that the groundwater level in MW 4 is currently at 56’ bgl.

10. In consultation with NMED on May 9, 2012, NMED acknowledged that despite “not being perfect”, it would not require the MW 4 to be replaced. See Exhibit MD-2 at pdf p. 33.

11. In 2012, DP-1342 required the City to install two (2) new monitoring wells on the WWTP property. DePauli Engineering and Surveying, LLC was subsequently retained to aid with the installation of MW 5 and 6. In addition, DePauli Engineering worked closely with NMED GWQB staff to ensure that MWs 5 and 6 would meet their expectations of having groundwater present in the well for sampling and testing knowing the confined aquifer conditions.

12. MWs 5 and 6 were drilled to approximately 120’ bgl with perforated intervals from 100’ to 120’. The wells were drilled to this depth to ensure there would be water to sample within each well. See Exhibit MD-2 - City of Gallup Wastewater Treatment Plant Monitoring Well Installation Report for the 2012 Well Log Data, Exhibit MD-3 for Monitoring Well State Plane Coordinates and elevations and Exhibit MD-4 for groundwater depth and flow direction.

13. Though some moisture was encountered at 80’ bgl in MWs 5 and 6, it could not be considered a groundwater aquifer. A viable groundwater source was encountered at about 100

feet bgl as detailed in Exhibit MD-2. Per NMED MW Guidelines, a MW should be perforated from 5' above the water table to 15' below the water table, but if a MW is not drilled and perforated deep enough to ensure groundwater in the well, the MW will be useless as there will not be any water to gather a sample representative of the groundwater in the area.

14. Additionally, from other MWs (MWs 2, 3 and 4) on location, there is evidence that confining conditions exist above the groundwater aquifer. Therefore, a longer filter pack and perforating a deeper interval on the well is the most effective way to ensure these MWs remain viable. As groundwater conditions fluctuate seasonally and annually, possibly beyond the limits sited in ¶ 13 above, a greater perforated interval is necessary.

15. Therefore, in consultation with the NMED GWQB, MW 5 and 6 were constructed and completed as detailed in Exhibit MD-2. The wells deviated from NMED's typical casing/screen/filter pack schedule to ensure that the wells would have water for sampling. The casing, well screen/perforation and filter pack were discussed with NMED GWQB and it was decided to install the filter pack and slotted casing considering the perforation interval of the existing MWs 1, 2, and 3, in recognition of the limited available groundwater within the layered stratigraphy comprised of sandstone, clay and coal.

16. Exhibits MD-2, thru -4 were submitted to NMED GWQB in the fall of 2012 as part of the DP-1342 renewal and compliance process. The GWQB recognized the confined aquifer conditions and accepted the monitoring wells as built. While there was no specific variance made in 2012 to the GWQB regarding the perforation/filter pack requirements, the monitoring well report contained in Exhibit MD-2 was presented and accepted by the GWQB.

17. The construction of MW 5, and 6 varied from NMED Monitoring Well guidelines for the following reasons:

- a. The deeper perforations ensured that these wells would always have water in them;
- b. Location specific geology and confined aquifer conditions caused difficulty in accurately determination of groundwater depth; and
- c. The monitoring wells were installed with 25' of 6" steel surface casing to stabilize the soil before drilling to the water bearing confined aquifer. The steel surface casing is comprised of cement placed between the casing and the dirt (annulus). The air rotary drilling method was used because the layered swelling clay stratigraphy cannot be drilled with a conventional auger drill rig.

18. The monitoring wells have performed as intended and water has always been present in the wells for sampling and testing.

19. Despite this history, when DP-1342 was reissued on August 11, 2022, the GWQB did not consider the confined aquifer and variable water level conditions that exist on the WWTP site. Thus, GWQB now requires Gallup to install three (3) additional MWs and plug and abandon the viable MWs 4, 5, and 6. See Aug. 11, 2022 Discharge Permit Renewal Conditions 16, 17 and 44. The GWQB did not provide any justification beyond a cursory conflation of "water moisture" above the water table that was provided in the same MW installation report that the NMED GWQB had previously relied on in 2012. Aug. 11 Letter Renewing DP-1342.

20. Requiring three additional monitoring wells, and the plugging and abandoning of MWs 4, 5, and 6 will cost the City over one hundred thousand taxpayer dollars. Additionally, the perforated zones required in the reissued DP-1342 will not guarantee the new MWs are viable. Strict conformance to these permit conditions will therefore result in needless expense of time, effort, and resources to the detriment of the taxpayers of Gallup. The specific need of air rotary drilling or other means of drilling through the layered surface soil, sandstone, clay, and coal is

particularly expensive and onerous given the fact that auger drilling that is not viable in this area as discussed above.

21. Further, NMED has comingled the conditions for the need, use, location and abandonment of monitoring wells in DP-1342 and DP-418 per correspondence dated May 9, 2012 contained in Exhibit MD-2. The monitoring wells for DP-418 are constructed similar to the MW No. 5 and 6. These monitoring wells will put the City of Gallup in the same predicament when DP-418 is renewed. The City's reliance on NMED GWQB permit conditions create a regulatory moving target that will create undue expense and regulatory burden.

Objection No. 2 – Condition 27 - The requirement of quarterly testing for arsenic.

22. Arsenic was detected in either MW 5 or MW 6. It is unclear from current records which well. Because arsenic is not present in the plant effluent, the detected arsenic may have been from be a local acute source of arsenic from the coal section of the formation encountered.

23. While the GWQB amended this permit condition and allowed the City to request this condition be removed after 4 consecutive quarterly tests, that requirement will be costly and burdensome. The first step with regard to this condition should involve resampling for contamination after diversion of a specific amount of water from the well in order to determine the source.

Objection No. 3 – Supply Chain constraints will make compliance with the conditions of DP-1342 impossible.

24. Permit condition 17 requires compliance within 180 days of August 11.

25. For construction of new monitoring wells, the City shall advertise for the procurement of a licensed New Mexico Well Driller capable of setting and cementing steel

surface casing and drilling and completing a well within variable stratigraphy of soil, sandstone, clay, and coal.

26. In my recent experience, the lead times for the materials needed to complete the well will exceed the time allowed.

27. Under the current material supply and labor shortages and inflationary conditions there is no way to predict the time frame for completing a well. The City would need at least 365 days to complete the well given these uncontrollable conditions.

Possible alternative solutions not considered by the GWQB.

28. The City of Gallup, like most, if not all, of New Mexico, is highly dependent on groundwater for domestic, agricultural, and industrial uses. The City has a vested interest in maintaining and exceeding all standards related to water quality to ensure the City has access to clean and reliable water sources.

29. The City and the NMED's goals to ensure access to clean and safe water are aligned. However, the City can achieve these goals in a less burdensome manner and was not given an opportunity to submit evidence and present any alternatives to the permit conditions in DP-1342.

30. The City of Gallup suggests the following potential modifications to the existing MWs that would satisfy NMED GWQB and would not require the needless abandonment of viable MWs. The City suggests the following:

- a. Perforate casing from 75' below ground level to the top of the existing slotted interval; and/or

- b. Pull casing up to match the current groundwater elevation with the slotted interval. Pulling the casing up will do the same as stated above in item a. but with less groundwater from the lower portion of the well; and/or
- c. Install a single well near MW 5 (or 6) according to the NMED groundwater bureau monitoring well guidelines. This well will be used as confirmation of water availability and water quality. The presence of arsenic could also be verified from groundwater in this well.

31. At various times throughout the permitting process, the City did proffer these possible solutions and remedies to the GWQB's concerns, however, they were never considered or ruled on by the GWQB and were summarily rejected with little acknowledgement and no documented supporting authority.

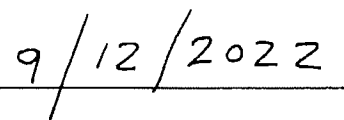
32. Therefore, the City respectfully requests the opportunity to supplement the record in this case with any additional evidence that may demonstrate alternative acceptable conditions to DP-1342 that will ensure groundwater quality without incurring needless and unnecessary expense of taxpayer resources.

VERIFICATION

I, Marc DePauli, P.E./P.S. state and affirm under penalty of perjury under the laws of the State of New Mexico, that the preceding Verification of Marc DePauli, P.E./P.S. was prepared by me or under my direction, and that its contents are true and accurate to the best of my knowledge.



Mark DePauli P.E./P.S.



Dated:

DePauli Engineering and Surveying, LLC

307 S. 4th Street
Gallup, NM 87301
(505) 863-5440

www.depauliengineering.com

Principal/Owner DePauli Engineering and Surveying, LLC
Civil Engineer and Land Surveyor responsible for all planning, design, surveying, and construction management of the firm.

Education Gallup High School 1983
B.S. Civil Engineering, University of Arizona 1987

Professional Registrations

- New Mexico Civil Engineer No. 12268
- Arizona Civil Engineer No. 34929
- New Mexico Professional Surveyor No. 13606
- Arizona Land Surveyor No. 36202
- California Civil Engineer No. 50809

Professional Affiliations American Society of Civil Engineering ASCE
New Mexico Professional Surveyors NMPS
Water Environment Federation WEF
American Waterworks Association AWWA
National Society of Professional Engineers NSPE

Experience Engineering experience during the past 35 years consists of planning, design and construction management of water distribution and supply, wastewater collection and treatment, street and drainage projects.

Surveying experience includes boundary, right- of- way, easement, topographic and construction surveys within the City of Gallup and surrounding areas. Previous employers include Malcolm Pirnie, Inc. and Sterling & Mataya, Engineers and Surveyors.

Civil Engineering & Construction Management Projects

Planning, permitting, design and construction management for the following water supply wells and monitoring wells in Mckinley County:

Galanis Well: Single completion within Gallup Sandstone aquifer, Depth 2104', 10 3/4" Steel Casing, , production 250 gpm.

Santa Fe No. 17 Well: Dual completion within the Gallup Sandstone and Dakota/Westwater aquifers, Depth 2320', 10 3/4"

Steel Casing, production 150 gpm.

Pena Well: Single completion within the Gallup Sandstone aquifer, Depth 2523', 10 3/4" Steel Casing, production 600 gpm.

Rosebrough Well Nos. 1 and 2: Multi - Completion/Exploratory within the San Andres/Glorieta (permian) Depth 2,500 to 3,700.

SJ 1491: Single Completion within the Dakota/Westwater aquifers, Depth 3,200' 13 3/8" Steel Casing, production to be determined.

Manuelito Chapter House Water Well: Completion within the Dakota/ Westwater aquifers Depth 500 ft.

Yah-ta Hey Water and Sanitation District Wastewater Treatment Facility and Monitoring Wells -1997. The project involved the construction of wastewater stabilization lagoons and evaporation ponds for the treatment of wastewater from the community of Navajo Estates in McKinley County, NM. Three (3) ground water monitoring wells vary in depth were constructed where layered sandstone, clay, sand and coal are present. The monitoring wells are in service today.

Williams Acre Water and Sanitation District Wastewater Treatment Facility Monitoring Wells – 2002. The project consisted of construction of three (3) groundwater monitoring wells to monitor groundwater flow direction and water quality. The monitoring wells were constructed around the district's wastewater stabilization lagoons. The monitoring wells are in service today.

Thoreau Water and Sanitation District Wastewater Treatment Facility - 2012. The project involved the construction of wastewater stabilization lagoons and evaporation ponds for the treatment of wastewater from the community of Thoreau in McKinley County, NM. Three (3) ground water monitoring wells vary in depth were constructed around the wastewater stabilization lagoons. The monitoring wells are in service today.

White Cliffs Mutual Domestic Wastewater Treatment Facility – 2009
The project involved the construction of wastewater stabilization lagoons and evaporation ponds for the treatment of wastewater from the community of White Cliffs in McKinley County, NM. Three (3) ground water monitoring wells vary in depth were constructed around the wastewater stabilization lagoons. The monitoring wells are in service today.

City of Gallup Wastewater Treatment Facility and Sludge Disposal
The project consisted of installation of six (6) monitoring wells and abandonment of three (3) monitoring wells for NMED Groundwater permits DP-418 and DP-1342.

Navajo-Gallup Water Supply Project:

Project consisted of construction of water pipelines, tanks, valves and pumping plants for distribution of water to the Gallup Regional Water Supply system. This is the southern component of the Navajo Gallup Water Supply Project which will deliver treated drinking from the San Juan River in San Juan County to Gallup and the surrounding customers.

Boundary survey according to New Mexico Standards for Surveying or ALTA/ASCM requirements

Right-of-Way and Easement surveying according to New Mexico Minimum Standards and CFR (Code of Federal Regulation) 25 part 169 for surveys on Indian lands.

Topographical surveys for roadway, drainage system, utility and building design.

Sectional surveys according to the Bureau of Land Management Survey Instruction Manual.

Establishment of horizontal and vertical control for Ariel surveys, construction project and monitoring wells according to New Mexico Environment Department requirements.

Construction surveying and staking for roadways, drainage systems, utility and building construction.

"As Built" surveys of utility line installation according to City of Gallup, Burlington Northern and Santa Fe Railroad and New Mexico Department of Transportation regulations.

Plan and profile, cross sectional for design purposes.

"As Built" surveys for record drawings.

CITY OF GALLUP
WASTEWATER TREATMENT PLANT
**MONITOR WELL INSTALLATION
REPORT**

PERMIT NO. DP-1342

PREPARED FOR:

NEW MEXICO ENVIRONMENT DEPARTMENT
GROUND WATER QUALITY BUREAU
PO BOX 5469
SANTA FE, NM 87502-5469

September 27, 2012

PREPARED BY:

DEPAULI ENGINEERING & SURVEYING, LLC
307 SOUTH 4TH STREET
GALLUP, NM 87301

EXHIBIT MD-2

September 27, 2012

Mr. Robert J. George
Domestic Waste Team Leader
New Mexico Environment Department
Ground Water Quality Bureau
PO Box 5469
Santa Fe, NM 87502-5469

**RE: Monitor Well Installation Report for the City of Gallup Wastewater Treatment
Plant: Discharge Permit Renewal and Modification DP-1342**

Dear Mr. George,

On behalf of the City of Gallup, we are pleased to submit this report regarding the installation of monitor wells MW-5 and MW-6 at the City of Gallup Wastewater Treatment Plant.

Should you have any questions regarding this report, please do not hesitate to contact me at (505) 863-5440.

Thank you,



Barbara Winfield
Geologist

cc: Lance Allgood, Executive Director, Gallup Joint Utilities
Gary Munn, Chief Engineer, Gallup Joint Utilities

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1.0 DP-1342 MONITOR WELL INSTALLATION SUMMARY

This report summarizes the drilling, well construction, and well development that took place between August 22, 2012 and August 30, 2012 at the City of Gallup Wastewater Treatment Plant (WWTP) during the installation of monitor wells MW-5 and MW-6. The facility is located at 800 Sweetwater Drive, Gallup, New Mexico; it lies within Section 23, Township 15 North, Range 19 West (S23, T15N, R19W), N.M.P.M.

Monitor well MW-5 is located north of the treatment facility and approximately 450 feet west of the outfall. Monitor Well MW-6 is located near the corner of the on-site sludge processing building, approximately 50 feet northwest of the lined impoundment. A map showing the location of these wells is provided as Figure 1.

Well installation and development was completed by Grants Drilling Service. Clarence Freeman, Master Groundwater Contractor (MGWC) was driller. DePauli Engineering and Surveying, LLC (DES) personnel were on site during installation activities. Monitor wells MW-5 and MW-6 were installed in accordance with a New Mexico Environment Department (NMED)-approved well design and modified for perched conditions. Each well was thoroughly developed and will perform effectively to meet specified on-site monitoring objectives.

2.0 INTRODUCTION

There are currently four (4) wells on site; MW-1, MW-2, MW-3 and MW-4. In a letter dated May 9, 2012 to the City of Gallup, the NMED stated that monitor wells MW-1, MW-2, and MW-3 are unsuitable for the following reasons:

- The depth of the water column in the wells, which results in an unacceptable level of dilution of any samples collected from the wells following purging, and;
- The location of the screens in relation to the static water level. Because in this scenario contaminants will migrate from above, samples should be collected as near to the top of the aquifer as possible in order to conservatively assess impacts.

NMED stated that the addition of two (2) new monitor wells, MW-5 and MW-6, will help define local lithology as well as the point at which groundwater is first encountered at the site. These wells will also assist the NMED in their determination of whether or not the City needs to replace the existing wells or simply plug and abandon them.

On June 5, 2012, the City of Gallup sent a response letter to NMED requesting approval of well locations for MW-5 and MW-6. The response included proposed monitor well locations, cost estimates, and general groundwater flow direction, all to be approved by NMED. An excerpt from this letter, which includes the May 9, 2012 letter to the City of Gallup, is provided as Exhibit A.

In a letter dated July 24, 2012, the NMED approved the proposed monitor well locations and installation methods. This letter is provided as Exhibit B.

3.0 PRELIMINARY ACTIVITIES

Personnel from DES coordinated with NMED to determine suitable well locations for MW-5 and MW-6. New Mexico One Call service was notified of the proposed well locations in order to define below-ground lines, if any, that would potentially be impacted by drilling activities. Following clearance from the One Call services, DES, Grants Well Service, and the WWTP director met on site to schedule drilling activities.

4.0 DRILLING ACTIVITIES

Drilling method, selection of equipment, and drill casing sizes for the two (2) monitoring wells were determined using NMED specifications. These specifications are designed to retain the ability to investigate and case off any perched groundwater encountered above the target groundwater zone.

The drill rig was equipped with conventional drilling rods, diamond and diamond bits, a deck-mounted air compressor, and general drilling equipment. Air and water rotary drilling methods were employed to drill the boreholes for MW-5 and MW-6. When necessary, drilling fluids used in the borehole included potable water, potable water with 20 Mule Team Borax, and potable water with Quick Foam foaming agent. These additives were used to cool the bit and help lift cuttings from the borehole. Use of the foaming agent was terminated at the total depth of each well.

Mobilization of drilling equipment and supplies to the Gallup WWTP occurred on August 23, 2012. Decontamination of the equipment and tooling was performed before mobilization to the site. Drilling commenced on August 23, 2012; DES personnel were present during all drilling activities. During drilling, field crews worked approximate eight (8)-hour shifts. Operations were suspended between August 23 and 27, 2012 to allow cement grout to cure. All well installation activities proceeded normally without incident or delay.

4.1 Drilling Methods: MW-5

Following on-site equipment inspections, drilling of the initial MW-5 borehole commenced at 09:23h on August 23, 2012. The borehole was completed using air and fluid-assisted rotary methods with a 10-inch diamond bit. Drilling proceeded through alluvium, sand, and some clay to a total depth of 25 feet bls; no indication of groundwater was observed while the initial borehole was advanced. Installation of the six (6)-inch steel surface casing was completed after drilling activities ceased. Approximately 11 bags (94 pounds each) of Type I and II Portland Quick Crete cement mixed with gravel was used to cement surface casing into place. DES personnel were present during all drilling activities.

On August 29, 2012, drilling with a four (4)-inch tri-head bit began. Drilling proceeded through intermittent beds of sand, sandstone, siltstone, and clay. At a depth of approximately 60 feet bls, a loss of circulation was encountered due to increasing amounts of clay. Water and foam were introduced in order to negate this loss of circulation during the remainder of drilling.

According to driller observation (16:35h), damp sand was encountered at approximately 80 feet bls; however, there was not enough moisture to determine if a viable groundwater source was encountered. Drilling activities ceased, to be completed on August 30, 2012.

The borehole for monitor well MW-5 was completed to a total depth of 120 feet bls. Drill rod was removed from the hole allowing for the installation of two (2)-inch Schedule 40 PVC slotted screen and casing. Filter pack, comprising clean silica sand, was installed around the two (2)-inch casing from 70 feet bls to 120 feet bls. Bentonite was used to seal the well to land surface.

4.2 Drilling Methods: MW-6

After completing surface casing installation on monitor well MW-5, mobilization to the location of MW-6 occurred on August 23, 2012. Following equipment inspections, the MW-6 borehole was initiated at 10:35h using air and fluid assisted rotary methods with nominal 10-inch diamond bit. Drilling proceeded through alluvium, sand, and some clay to a depth of 25-feet bls. No indication of groundwater was observed while the initial borehole was advanced. Six (6)-inch steel casing was installed to a depth of 25-feet bls. Approximately 14 bags (94 pounds each) of Type I and II Portland Quick Crete cement mixed with gravel was used to cement surface casing into place.

On August 27, 2012, air-rotary drilling with a four (4)-inch tri-head bit began. Drilling proceeded through intermittent beds of sand, sandstone, siltstone, and clay. At a depth of approximately 80-feet bls, a loss of circulation was encountered due to increasing amounts of clay. Water and foaming agent were added to clean the bit and allow for circulation during the remainder of drilling on MW-6.

According to driller observation, damp sand was encountered at approximately 80 feet bls; however, there was not enough moisture to determine if a viable groundwater source was encountered. A low-producing zone was first encountered at approximately 120 feet bls. The borehole was completed at a total depth of 150 feet bls. Drill rod was removed from the hole to allow for installation of the two (2)-inch Schedule 40 PVC slotted screen and casing.

Upon installation of the two (2)-inch PVC casing, it was discovered that the hole had collapsed to a depth of 90 feet bls. Casing was disassembled and removed from the hole at 1645h. Drill crew and DES personnel left the site for the day.

On August 28, 2012, a water sensor was first used to determine if there was existing groundwater in the borehole. The sensor indicated that increased moisture was present at a depth of approximately 90 feet bls. It was determined by both DES personnel and Grants Drilling Service that groundwater was available between 80 and 120 feet bls.

The borehole was completed to a total depth of 120 feet bls. Drill rod was removed from the hole allowing for the installation of two (2)-inch Schedule 40 PVC slotted screen and casing. A filter pack composed of clean silica sand was placed around the well from 70 feet bls to a total depth of 120 feet bls. Bentonite cement was used to seal the well to land surface.

5.0 GEOLOGY AND HYDROGEOLOGY

Descriptions of subsurface lithology are based on drill cuttings collected in the field between August 24 and 30, 2012. Lithologic logs for monitor wells MW-5 and MW-6 are presented as Table A and Table B, respectively.

5.1 Groundwater

Groundwater was encountered on monitor wells MW-5 and MW-6 between 95 and 125 feet bls while drilling. Groundwater flow was observed in the field and estimated to be between five (5) and eight (8) gallons per minute (gpm). Static water levels were obtained on September 19, 2012, during a post-installation site visit. Water levels for MW-5 and MW-6 are 78.5 feet below the top of PVC casing (TOC) and 80.56 feet below TOC, respectively. These measurements, as well as final field measurements, are provided as Table C, Well Measurements.

Groundwater samples and field parameters for MW-5 and MW-6 were also collected on September 19, 2012. Field parameters recorded during this site visit include pH, conductivity, total dissolved solids (TDS), and temperature. These are provided as Table D, Groundwater Field Parameters. Groundwater samples were sent to the laboratory for analysis of NO₂, NO₃, TKN, TDS, and Cl⁻. Groundwater sample data and testing analysis, provided by Hall Environmental, will be provided as an addition to this report when complete.

6.0 WELL INSTALLATION

The information below includes well installation specifics for monitor wells MW-5 and MW-6. Well installation was completed in accordance with NMED standards.

6.1 Well Construction and Design

Six (6)-inch steel surface casing was installed on August 24, 2012 for both MW-5 and MW-6. Cement grout containing Type II Portland Quick Crete (concrete) and gravel surrounds the six (6)-inch steel casing to 25 feet bls on each well.

Surface casing for both MW-5 and MW-6 surrounds a nominal two (2)-inch, schedule 40 PVC well that includes 20 feet of slotted screen with a cap at the bottom. The top of the screened interval is set at 100 feet bls, with a resulting bottom depth of 120 feet bls for each monitor well. The two (2)-inch wells were installed on August 30, 2012 and August 29, 2012 for MW-5 and MW-6, respectively. Centralizers are attached to the two (2)-inch well at the base of the well, top of the screened interval, and approximately 50 feet above the top of the slotted screen for each well.

Filter packs comprising clean silica sand surrounds each two (2)-inch well from about 70-feet bls to 120 feet bls. Bentonite seals are completed above the filter pack from 70 feet bls to land surface on each well. The bentonite was hydrated with potable water during placement. One (1)-inch diameter Tremie pipe was used while placing sealing materials. Monitor well diagrams for MW-5 and MW-6 are included in as Figure 2 and Figure 3, respectively.

Monitor wells are designed in accordance with NMED approved Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions, Revision 1.1, March 2011.

7.0 POST-INSTALLATION ACTIVITIES

Following well installation, the screened intervals were developed for approximately two (2) hours for both MW-5 and MW-6. Flow rate for each well was estimated between five (5) and eight (8) gpm during development. On September 19, 2012, static water levels, field parameters, groundwater samples, and final well measurements were obtained during a post-installation site visit. These measurements are provided as Table C, Field Measurements.

Static water levels and final well measurements are provided in Appendix A, Well Construction Diagrams. Field parameters are provided in Table D, Groundwater Field Parameters.

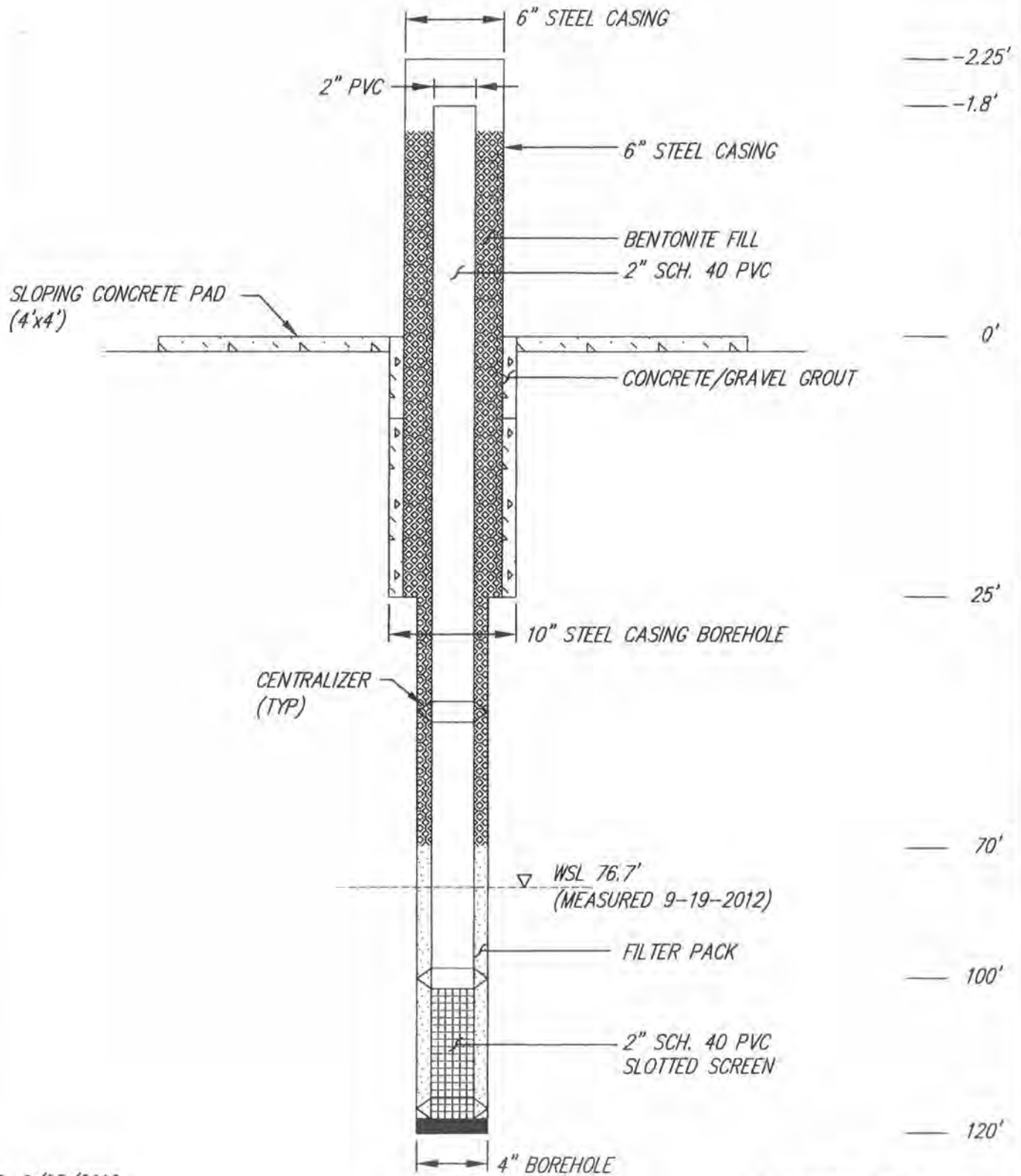
Groundwater samples were collected and sent to the laboratory for analysis of the following parameters: Nitrites (NO_2), Nitrates (NO_3), Total Kjeldhal Nitrogen (TKN), Total Dissolved Solids (TDS), and Chloride (Cl^-). Groundwater sample data and testing analysis, provided by Hall Environmental, will be provided as an addition to this report when complete.

Well surveys will be completed within the 60-day timeline provided by the NMED. Results of these surveys and a map showing groundwater flow direction, when complete, will be submitted to NMED no later than 30 days after completion of the survey.

FIGURES



FIGURE 1. Gallup WWTF Monitor Well Locations (MW-5 and MW-6)



NOT TO SCALE

DATE: 9/25/2012

Prepared by:

DePauli Engineering & Surveying LLC

- Civil Engineers and Land Surveyors -

307 South 4th Street Gallup, New Mexico 87301

Tel: (505) 863-5440

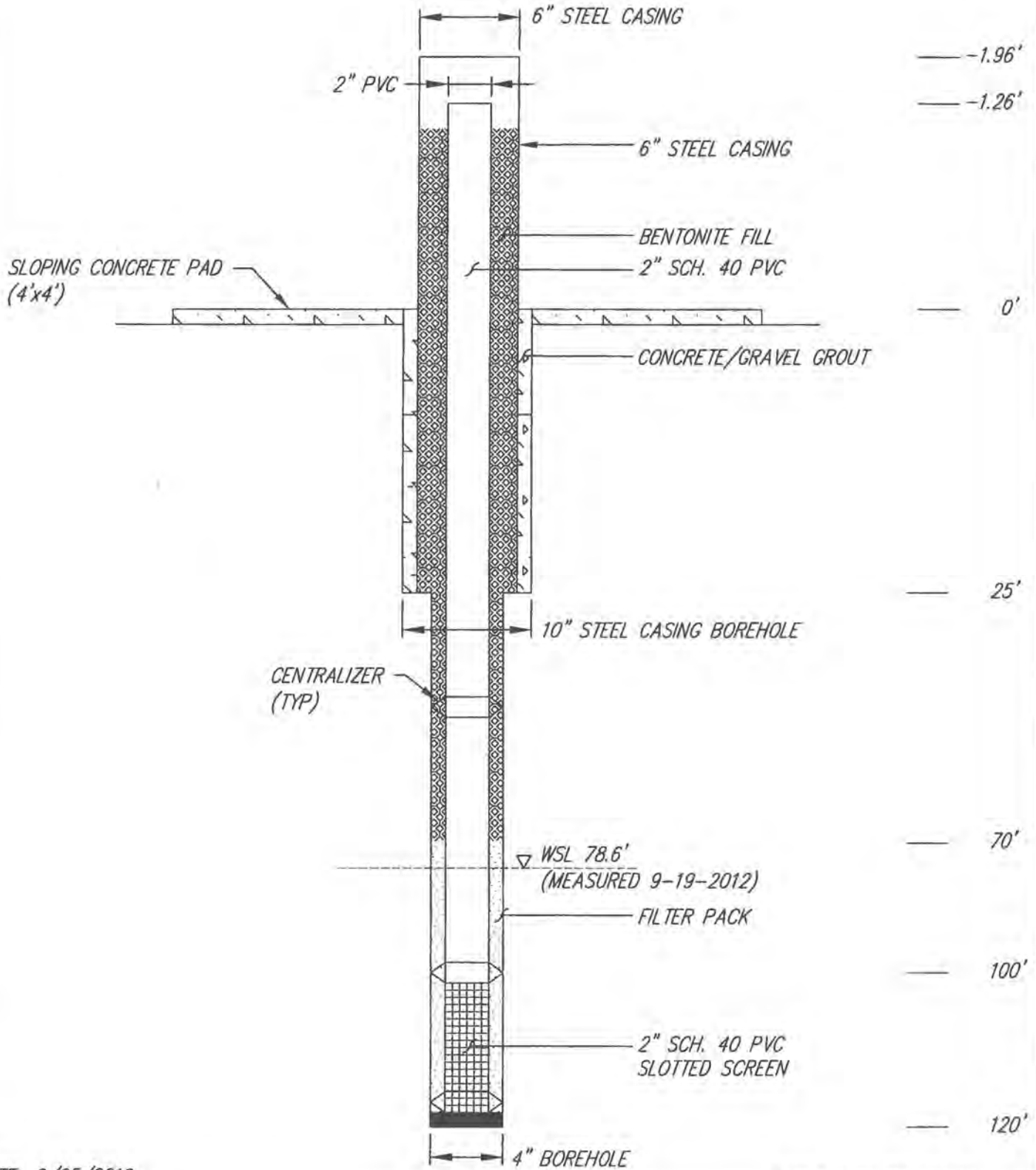
Fax: (505) 863-1919

des@cnetco.com



FIGURE 2
GALLUP WWTF
MONITOR WELL No. 5

C:\Engineer\wwtf\mwinstal.dwg, 9/27/2012 3:16:31 PM, cad2



DATE: 9/25/2012

NOT TO SCALE

Prepared by:

DePauli Engineering & Surveying LLC

- Civil Engineers and Land Surveyors -

307 South 4th Street Gallup, New Mexico 87301

Tel: (505) 863-5440

Fax: (505) 863-1919

des@cnetco.com



FIGURE 3
GALLUP WWTF
MONITOR WELL No. 6

TABLES

TABLE A. Gallup Wastewater Treatment Facility (WWTF) MW-5 Lithologic Log.

DEPTH BELOW LAND SURFACE (Feet)	DESCRIPTION
0.0 - 12.0	Sand, light brown to brown, fine to medium grained
12.0 - 17.0	Clay, sandy, silty, tan to gray, very fine to medium grained
17.0 - 25.0	Clay, medium to dark gray, silty, fine grained
25.0 - 35.0	Sand, grayish yellow to dark yellowish orange, fine to medium grained
35.0 - 40.0	Sand, grayish yellow to moderate yellow, fine to medium grained
40.0 - 45.0	Clay, sandy, silty, moderate yellowish brown, fine to medium grained
45.0 - 55.0	Sandstone, moderate brown to moderate yellowish brown, very fine grained, black flecks
55.0 - 75.0	indicates shale, sandy silt, fine grained, black flecks
75.0 - 80.0	Silt, silty shale, moderate to dark yellowish brown, very fine grained
80.0 - 95.0	Clay, sandy, moderate brown, fine grained
95.0 - 100.0	Sand, clayey, silty, grayish yellow to dark yellowish orange, fine to very fine grained
100.0 - 105.0	As above, increased sand, dark yellowish orange to moderate yellowish brown
105.0 - 110.0	Sand, sandy silt, grayish orange to dark yellowish orange, very fine grained
110.0 - 115	Sandy clay, moderate brown to dark yellowish brown, fine grained
115.0 - 125.0	As above, increasing moisture, increasing sand with depth. Water present.

TABLE B. Gallup Wastewater Treatment Facility (WWTF) MW-6 Lithologic Log.

DEPTH BELOW LAND SURFACE (Feet)	DESCRIPTION
0.0 - 2.0	Asphalt
2.0 - 12.0	Clay, dark gray, silty, very fine grained
12.0 - 20.0	Sand, brown to redish brown, fine grained
20.0 - 25.0	Sand, brown to redish brown, fine grained
25.0 - 30.0	Clay, sandy, moist, moderate brown, fine to very fine grained
30.0 - 32.0	Sand, medium tan to brown, fine grained
32.0 - 35.0	Clay and sand mix, very fine grained, grayish to moderate yellow
35.0 - 48.0	Claystone, firm, dark redish brown to very dusky red, very fine grained
48.0 - 54.0	Sand, fine to very fine grained, dark yellowish orange
54.0 - 58.0	No cuttings.
58.0 - 70.0	Sand, fine to very fine grained, dark yellowish orange with black flecks
70.0 - 75.0	Sand, clay rich, fine to medium grained, moderate olive brown
75.0 - 125.0	Cuttings not collected; quick-foam liquid foaming agent and water were used to complete drilling

TABLE C. Well Measurements: September 19, 2012

WELL NAME	PAD TO TOP OF STEEL CASING (Feet)	BENTONITE FILL TO TOP OF PVC (Feet)	WATER LEVEL (Feet Below TOC)	TOTAL DEPTH (Feet)
MW-5	2.25	0.75	78.50	117.25
MW-6	1.96	0.70	80.56	116.00

TABLE D. Groundwater Field Parameters for MW-5, MW-6: September 19, 2012

WELL NAME	TIME	CONDUCTIVITY (μ s)	TEMPERATURE ($^{\circ}$ C)	TOTAL DISSOLVED SOLIDS (PPM)	pH	OBSERVATIONS
MW-5	1512	1705	18.0	854	6.91	Water somewhat cloudy.
MW-6	1545	872	20.2	425	7.20	Water somewhat cloudy.

*PPM = parts per million

NEW MEXICO OFFICE OF THE STATE ENGINEER



**APPLICATION FOR PERMIT TO DRILL A WELL
WITH NO CONSUMPTIVE USE OF WATER**



(check applicable box):

For fees, see State Engineer website: <http://www.ose.state.nm.us/>

Purpose:	<input type="checkbox"/> Pollution Control And / Or Recovery	<input type="checkbox"/> Geo-Thermal
<input type="checkbox"/> Exploratory	<input type="checkbox"/> Construction Site De-Watering	<input type="checkbox"/> Other (Describe):
<input checked="" type="checkbox"/> Monitoring	<input type="checkbox"/> Mineral De-Watering	
A separate permit will be required to apply water to beneficial use.		
<input checked="" type="checkbox"/> Temporary Request - Requested Start Date: August 23, 2012		Requested End Date: August 27, 2012
Plugging Plan of Operations Submitted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

1. APPLICANT(S)

Name: City of Gallup	Name: DePauli Engineering & Surveying, LLC
Contact or Agent: Gary Munn <input type="checkbox"/> check here if Agent	Contact or Agent: Marc DePauli, P.E./P.S. <input type="checkbox"/> check here if Agent
Mailing Address: 110 W. Aztec	Mailing Address: 307 S. 4th Street
City: Gallup	City: Gallup
State: NM Zip Code: 87301	State: NM Zip Code: 87301
Phone: <input type="checkbox"/> Home <input type="checkbox"/> Cell Phone (Work): (505) 863-1220	Phone: <input type="checkbox"/> Home <input type="checkbox"/> Cell Phone (Work): (505) 863-5440
E-mail (optional):	E-mail (optional):

FOR OSE INTERNAL USE

Application for Permit, Form wr-07, Rev 4/12/12

File Number:	Trn Number:
Trans Description (optional):	
Sub-Basin:	
PCW/LOG Due Date:	

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

NM State Plane (NAD83) (Feet)
 UTM (NAD83) (Meters)
 Lat/Long (WGS84) (to the nearest 1/10th of second)

NM West Zone
 Zone 12N
 NM East Zone
 Zone 13N
 NM Central Zone

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
MW-5	1645242.11	2429731.34	Section 23, T15N, R19W, NMPM
MW-6	1644408.54	2430290.57	Section 23, T15N, R19W, NMPM

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: Yes No If yes, how many _____

Other description relating well to common landmarks, streets, or other: **City of Gallup Wastewater Treatment Plant, 800 Sweetwater Place, Gallup, NM 87301**

Well is on land owned by: **City Of Gallup**

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? Yes No
 If yes, how many 2

Approximate depth of well (feet): 117.00	Outside diameter of well casing (inches):
Driller Name: Clarence Freeman, Mgwc	Driller License Number: WD-634

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

Per Condition No. 20, required for Discharge Permit Renewal and Modification DP-1342, two new monitor wells must be installed at the City of Gallup Wastewater Treatment Facility. One Monitor well to be located hydrologically downgradient of NPDES Permit #NM0020672 Outfall 001 and one monitor well to be located 20 to 50 feet hydrologically downgradient of the reserve impoundment. These monitor wells shall be used to monitor water quality for the City of Gallup Wastewater Treatment Facility for the duration of DP-1342 and/or corresponding permit regulations.
Refer to the attached report for additional information regarding monitor well installation.

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Application for Permit, Form wr-07

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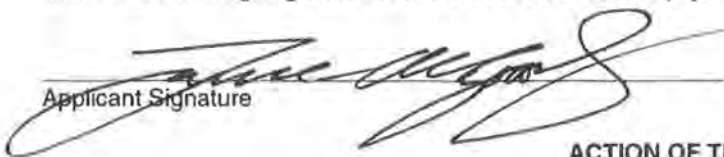
4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

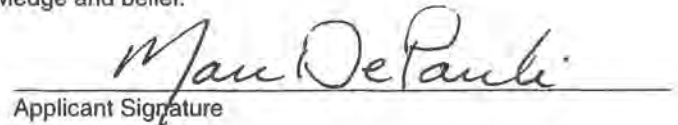
<p>Exploratory: <input type="checkbox"/> Include a description of any proposed pump test, if applicable.</p>	<p>Pollution Control and/or Recovery: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for the pollution control or recovery operation. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The annual diversion amount. <input type="checkbox"/> The annual consumptive use amount. <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation. <input type="checkbox"/> The method and place of discharge.</p>	<p>Construction De-Watering: <input type="checkbox"/> Include a description of the proposed dewatering operation, <input type="checkbox"/> The estimated duration of the operation, <input type="checkbox"/> The maximum amount of water to be diverted, <input type="checkbox"/> A description of the need for the dewatering operation, and, <input type="checkbox"/> A description of how the diverted water will be disposed of.</p>	<p>Mine De-Watering: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for mine dewatering. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The source(s) of the water to be diverted. <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s). <input type="checkbox"/> The maximum amount of water to be diverted per annum. <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation. <input type="checkbox"/> The quality of the water. <input type="checkbox"/> The method of measurement of water diverted.</p>
<p>Monitoring: <input checked="" type="checkbox"/> Include the reason for the monitoring well, and, <input checked="" type="checkbox"/> The duration of the planned monitoring.</p>	<p><input type="checkbox"/> The method of measurement of water produced and discharged. <input type="checkbox"/> The source of water to be injected. <input type="checkbox"/> The method of measurement of water injected. <input type="checkbox"/> The characteristics of the aquifer. <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system. <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department. <input type="checkbox"/> An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.</p>	<p>Geo-Thermal: <input type="checkbox"/> Include a description of the geothermal heat exchange project, <input type="checkbox"/> The amount of water to be diverted and re-injected for the project, <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and, <input type="checkbox"/> The duration of the project. <input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.</p>	<p><input type="checkbox"/> The recharge of water to the aquifer. <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights. <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.</p>

ACKNOWLEDGEMENT

I, We (name of applicant(s)), the City of Gallup and DePauli Engineering and Surveying, LLC
 Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.


 Applicant Signature


 Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

- approved partially approved denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this _____ day of _____ 20 _____, for the State Engineer,

_____, State Engineer

By: _____
 Signature

Print

Title:

FOR OSE INTERNAL USE

Application for Permit, Form wr-07

File Number:	Trn Number:
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FOR OSE INTERNAL USE

Application for Permit, Form wr-07

File Number:

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NEW MEXICO OFFICE OF THE STATE ENGINEER



APPLICATION FOR PERMIT TO DRILL A WELL WITH NO CONSUMPTIVE USE OF WATER



(check applicable box):

For fees, see State Engineer website: <http://www.ose.state.nm.us/>

Purpose:	<input type="checkbox"/> Pollution Control And / Or Recovery	<input type="checkbox"/> Geo-Thermal
<input type="checkbox"/> Exploratory	<input type="checkbox"/> Construction Site De-Watering	<input type="checkbox"/> Other (Describe):
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<input checked="" type="checkbox"/> Temporary Request - Requested Start Date: August 23, 2012		Requested End Date: August 27, 2012
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Phone: <input type="checkbox"/> Home <input type="checkbox"/> Cell Phone (Work): (505) 863-1220	Phone: <input type="checkbox"/> Home <input type="checkbox"/> Cell Phone (Work): (505) 863-5440
E-mail (optional):	E-mail (optional):

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Application for Permit, Form wr-07, Rev 4/12/12

File Number:	Trn Number:
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ACKNOWLEDGEMENT

I, We (name of applicant(s)), the City of Gallup and DePauli Engineering and Surveying, LLC
Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.


Applicant Signature


Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

- approved partially approved denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this _____ day of _____ 20 _____, for the State Engineer,

_____, State Engineer

By: _____
Signature Print

Title:

FOR OSE INTERNAL USE

Application for Permit, Form wr-07

File Number:

Trn Number:

FOR OSE INTERNAL USE

Application for Permit, Form wr-07

File Number:

Trn Number:

EXHIBIT A



CITY OF GALLUP

MAYOR: JACKIE MCKINNEY
COUNCILORS: MIKE ENFIELD
ALLAN LANGAVAZO
E. BRYAN WALL
CECIL GARCIA
CITY MANAGER: DAN DIBLE

June 5, 2012

Mr. Robert J. George
Domestic Waste Team Leader
New Mexico Environment Department
Ground Water Quality Bureau
PO Box 5469
Santa Fe, New Mexico 87502-5469

RE: City of Gallup Wastewater Treatment Facility, Discharge Permit Renewal and Modification DP-1342: Proposed Monitoring Well Locations and Localized Groundwater Flow Direction

Dear Mr. George:

The City of Gallup's Wastewater Treatment Facility is currently equipped with four (4) ground water monitoring wells, MW-1, MW-2, MW-3, and MW-4. Well MW-1 is intended to be located hydrologically upgradient of the sludge disposal cells. Wells MW-2 and MW-3 are located down gradient of the sludge disposal cells. Monitoring well MW-4 is located northeast of the facility. All wells are located in the north ½ of Section 23, Township 15 North, Range 19 West NMPM.

The New Mexico Environment Department (NMED) visited the Gallup Wastewater Treatment Facility in March, 2012. At this time, video logs were completed for each of the on-site monitoring wells. Video logs indicate that well MW-1 may have vertical cuts in the casing instead of screen, which was common in 1960's domestic wells. The video log of well MW-2 was terminated shortly after the camera entered the well due to turbid conditions. The log for well MW-3 showed surfactant bubbles above the water level, which was likely due to the use of soap to remove the pump from the well prior to video logging. Well MW-4 appeared to be in good operating condition; however, a hand bailer appeared to have been lost at the bottom of the well.

In a letter to Gallup Joint Utilities, dated May 9, 2012, the NMED commented that the well logs for MW-1, MW-2, MW-3, and MW-4 may show geology that indicates confined aquifer conditions on-site. NMED also stated that the difference in static water levels may also indicate confined conditions. A copy of this letter is provided as Exhibit A.

Surface water flow in the area of the sludge disposal facility is to the west. This is determined by the flow of the Puerco River, which runs in a westerly direction through Gallup, toward the Little Colorado River. Groundwater flow in this area is to the north. This is determined by the location of the top of the Gallup Sandstone Aquifer, which is located between 1,000 and 1,200 feet below land surface (bls). According to a map provided in the open-file report *Availability of Ground*



Water in the Gallup-Tohatchi Area, McKinley County, New Mexico (Mercer, 1970) the contours of the top of the aquifer are more shallow to the south and deeper to the north. Potentiometric contours generally follow the top of the Gallup Sandstone; they have nearly the same slope directions to the north.

Upon analysis of surface water flow and available groundwater levels at the facility, general groundwater flow direction is assumed to the northwest.

In accordance with the conditions of NMED Discharge Permit Renewal and Modification, DP-1342, City of Gallup Wastewater Treatment Facility, dated November 20, 2011; two (2) new monitoring wells are proposed. One monitoring well, MW-5, will be located hydrologically downgradient of NPDES Permit No. NM0020672 Outfall 001. The second monitoring well, MW-6, will be located 20 to 50 feet hydrologically downgradient of the reserve impoundment. Refer to Exhibit B, Preliminary Plat, for a map of the proposed monitoring well locations.

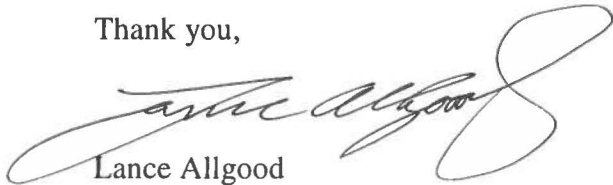
In order to obtain an accurate depth to groundwater, soil lithology, confining conditions (if present), and the direction of groundwater flow, it has been recommended that the proposed monitoring wells be drilled to similar specifications as well MW-4. The proposed wells will be constructed of two (2)-inch diameter PVC pipe; they are anticipated to be drilled to an approximate depth between 80 and 100 feet bls. Drilling will be completed by an air-rotary rig. At such time that groundwater is encountered, screened intervals will be installed to no more than five (5) feet above and 15 feet below the water table. Soil samples will be collected and analyzed in five (5) foot intervals by an on-site geologist. A cost breakdown is provided as Table 1. Well Construction Costs.

Wells will be completed in accordance with Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions, Revision 1.1, March 2011. A well completion report that includes well construction information and lithologic logs shall be submitted to NMED within 30 days of well installation.

NMED Discharge Permit Renewal and Modification DP-1342, dated November 20, 2011, is provided as Exhibit C.

Scheduling and well installation will begin upon the NMEDs written approval of the proposed well locations. Should you have any questions, don't hesitate to contact DePauli Engineering and Surveying, LLC at (505) 863-5440.

Thank you,



Lance Allgood
GJU Executive Director

Xc: File

Table 1. Well Construction Costs

TABLE 1. Well Construction Costs

CONSTRUCTION	COST PER EACH	TOTAL COST
Installation of three (3) wells to 100 feet below land surface (bls)	\$15,000.00	\$45,000.00
Drilling Oversight / Well Installation	\$ 9,000.00	\$ 9,000.00
TOTAL PROJECT COST:		\$54,000.00

Exhibit A. Letter to Gallup Joint Utilities dated May 9, 2012.



SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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



DAVE MARTIN
Secretary
BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 9, 2012

Lance Allgood, Executive Director
Gallup Joint Utilities
P.O. Box 1270
Gallup, NM 87305

**RE: MONITORING WELL INSPECTION FOLLOW-UP, DP-418,
CITY OF GALLUP SLUDGE DISPOSAL FACILITY**

Dear Mr. Allgood:

On March 6, 2012, staff from the New Mexico Environment Department (NMED) Ground Water Quality Bureau conducted an inspection of the City of Gallup Sludge Disposal Facility (Sludge Facility), and specifically, the facility's ground water monitoring wells. The City's Sludge Facility is regulated by NMED through ground water Discharge Permit DP-418, which was last issued on March 12, 2004 to the City pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC. An application for renewal and modification of DP-418 was received by NMED on July 22, 2010 and NMED is in the process of collecting information in preparation for drafting a renewal/modification permit for this facility. Please allow this letter to convey NMED's inspection findings and determinations regarding the monitoring wells at the City's Sludge Facility.

The City of Gallup's Sludge Facility consists of an approximately 81 acre surface disposal site where up to 35,000 gallons per day (on average) of sludge from the City's municipal wastewater treatment facility (WWTF) is injected and/or surface spread for permanent disposal. It was first permitted on May 5, 1986 and has been in continuous operation since. The facility is equipped with three ground water monitoring wells, two of which are intended to be located

hydrologically downgradient of the sludge disposal cells (MW-2 and MW-3) and one that is intended to be located upgradient (MW-1). Monitoring wells MW-2 and MW-3 were installed in February 1988 in accordance with the City's discharge plan. Monitoring well MW-1 was an existing domestic well (the Lynch well) installed in approximately 1963 that NMED agreed to allow to be used in lieu of installing a new upgradient well. NMED's files include partial construction logs for MW-2 and MW-3 (copies attached), but not for MW-1. For at least the last five years, the City has reported that "no water" was found in MW-2 and MW-3 and since 2008, the City has reported that "no water" was found in any of the three monitoring wells. Under these circumstances, no depth-to-water information or analytical samples were collected from the wells. After discussions with the current treatment plant staff, NMED has come to understand that the reports of "no water" in the wells was related to the fact that the sampling pump had failed due to sediment build-up, rather than a change in the actual ground water elevation. From NMED's perspective, a pump failure does not constitute a reason for not collecting required analytical samples and depth-to-water data and the City has since altered its procedures.

NMED elected to inspect the monitoring wells using a monitoring well camera in an effort to better understand the screen intervals and condition of the monitoring wells. In the weeks prior to the inspection, the City removed the dedicated pumps from the wells and the wells were surged and redeveloped to remove sediment deposits that had rendered the pumps inoperable. The monitoring well at the City's wastewater treatment facility (MW-4) was also inspected. A compact disc containing video records of each monitoring well inspection is enclosed. The wells were also sounded to determine the current depth to water and total depth (where possible). The most current available information for the monitoring wells is summarized in Table 1:

Table 1

Monitoring Well Designation	DTW	Total Depth	Water First Encountered (during drilling)	Screened Interval	Construction/Comments
MW-1	83.55'	187.6' (sonder)	Unknown	Unknown, but below SWL	6" steel casing
MW-2	84.60'	207' (drill log)	Unknown	Unknown, but below SWL	6" steel casing
MW-3	83.75'	202.5' (sonder)	182'	120' - 200' (drill log)	6" PVC (liner) with 120' steel (casing liner)
MW-4	54.78'	Estimated 100'	80'	80' - 100' (camera)	2" PVC, bailer inadvertently lodged in bottom

DTW = depth to water in well from top of casing (ft)
 SWL = static water level in monitoring well

NMED's findings about the monitoring wells based upon the camera efforts and the available information follows:

MW-1: This well consists of a 6' steel casing. No construction log is available for this well, so the length and location of the screen is unknown, but it is below the static water level (based upon the camera work). At time index 12:05 on the camera recording, a casing joint appears. Shortly after (at time index 12:09) what appears to be a vertical slot can be seen and below this, large amounts of debris can be seen to be intruding into the well. This could indicate that this well has vertical cuts in the casing instead of screen, and the cuts begin where noted and extend down to the bottom of the well. NMED records indicated that MW-1 was an existing domestic well (the Lynch well, installed in 1963) before it was converted for use as a monitoring well. Torch cut vertical slot well screen construction was common in the 1960's for domestic wells. The pad and casing/shroud appear to be in relatively good condition.

MW-2: Significant amounts of silt are deposited in the bottom of MW-2, which prevented NMED from verifying the actual depth using a sounder. The camera inspection was terminated shortly after the camera entered ground water due to highly turbid conditions. A (partial) construction log is available for this well which indicates that 207 ft of 6" steel casing was installed. The length of screen installed is not included and the camera was not able to reveal any details concerning the screen except that there is no screen above the static water level. The shroud and pad for this well appear to be in fair condition.

MW-3: The well log for MW-3 indicates that water was located at 182 ft during drilling, but that the static water level was at 80 ft upon completion. The well was completed to 200 ft, with 122 ft of 6" steel outer casing, 120 ft of 6" PVC inner liner and 80 ft of PVC slotted screen. Turbidity in the ground water in the well prevented a clear verification of the screen length or location, although evidence of a slotted screen was observed (see time index 5:38). Surfactant bubbles were encountered in the casing above the static water level in this well (see time index 1:01). These are presumably a remnant of the recent efforts to surge and remove sediment from the well. The concrete pad surrounding the casing of this well is slightly elevated due to erosion or subsidence, potentially allowing surface contaminants to enter the subsurface.

MW-4: MW-4 is a much newer well that was installed in 1999 pursuant to Discharge Permit DP-1342. MW-4 is a 2" PVC well that is completed to a depth of approximately 100 ft with 20 ft of slotted screen at the bottom. While installing the well, water was first encountered at 80 ft, but rose over the years to the current static water level of 54.78 ft. As originally constructed, this well was acceptably screened. However, now that the water level has risen, the screen section occurs approximately 25 ft below the static water level. This was confirmed through the camera investigation (see time index 3:39 for the top of the screen, which was determined to start at the 8th joint (10 ft PVC pipe sections, 9 joints and 10 sections total). Note that a hand bailer appears to have been lost in the bottom of the well. The top of the bailer can be seen at time index 4:04. The pad and shroud for this well appear to be in good condition. As a monitoring device, this well is not perfect, but NMED does not intend that it be replaced.

The well logs for MW-2, MW-3 and MW-4 indicate geology at the site which might result in confined aquifer conditions. Specifically; the logs each note significant formations of clay and shale being encountered in the upper strata overlaying sandstone, which appears to be the major water bearing strata. The difference in static water levels between MW-1, MW-2, MW-3 (approximately 84 ft) and MW-4 (approximately 55 ft) in such nearby wells that are located at virtually the same ground elevation also suggests confined conditions.

The water quality between MW-1, MW-2, MW-3 and MW-4 also differs. Specifically; high concentrations of sulfate (> 300 mg/L) occur in MW-4, but not in MW-1 (< 25 mg/L). Sulfate data is not available for MW-2 and MW-3. From the time of installation, samples from MW-1, MW-2 and MW-3 have contained elevated levels of total Kjeldahl nitrogen (TKN). TKN levels in these wells have often been > 10 mg/L and sometimes > 20 mg/L, but very little nitrate-nitrogen has been observed. MW-4 does not show significant concentrations of TKN or nitrate-nitrogen. The total dissolved solids (TDS) concentration ranges from a low of around 700 mg/L in MW-2 to a high of approximately 2400 mg/L in MW-3. MW-1 and MW-4 contain TDS values around 1100 mg/L.

As a monitoring device intended to allow NMED to determine if an exceedance of the ground water standards has resulted from the discharges at Gallup's Sludge Disposal Facility, MW-1, MW-2 and MW-3 are unsuitable due to:

- The depth of the water column in the wells, which results in an unacceptable level of dilution of any samples collected from the wells following purging, and;
- The location of the screens in relation to the static water level. Because in this scenario contaminants will migrate from above, samples should be collected as near to the top of the aquifer as possible in order to conservatively assess impacts.

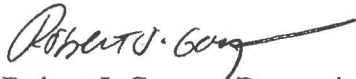
In a setting such as this, monitoring wells are intended to be completed with no more than 20 ft of screen which is installed with 5 ft above the water table and 15 ft below (see NMED's ground water discharge permit monitoring well construction and abandonment guidelines; attached). NMED's files show that this was the original design of the monitoring wells at the Gallup Sludge Disposal Facility, but it appears that the original design was altered when ground water was not encountered at the elevation expected for the site (approximately 80 ft). Based upon the limitations and problems with these monitoring wells, NMED will seek to have MW-1, MW-2 and MW-3 plugged and abandoned and (potentially) replaced when a draft for the renewal and modification of DP-418 is proposed for approval. Furthermore, NMED requests that the City proceed with the installation of the two new ground water monitoring wells and well survey that are required under Discharge Permit DP-1342, which was renewed and modified on November 20, 2011. The installation of these two new monitoring wells and well survey will provide valuable information concerning where ground water is first encountered at this site, soil lithology, the presence of any confining conditions and the direction of ground water flow. This information will be taken into account by NMED when considering whether or not the City needs to replace the existing wells at the Sludge Disposal Site, or simply plug and abandon them.

May 9, 2012

Page 5

If you have any questions, please feel free to contact me at (505) 476-3648. Thank you for your interest in this matter.

Sincerely,



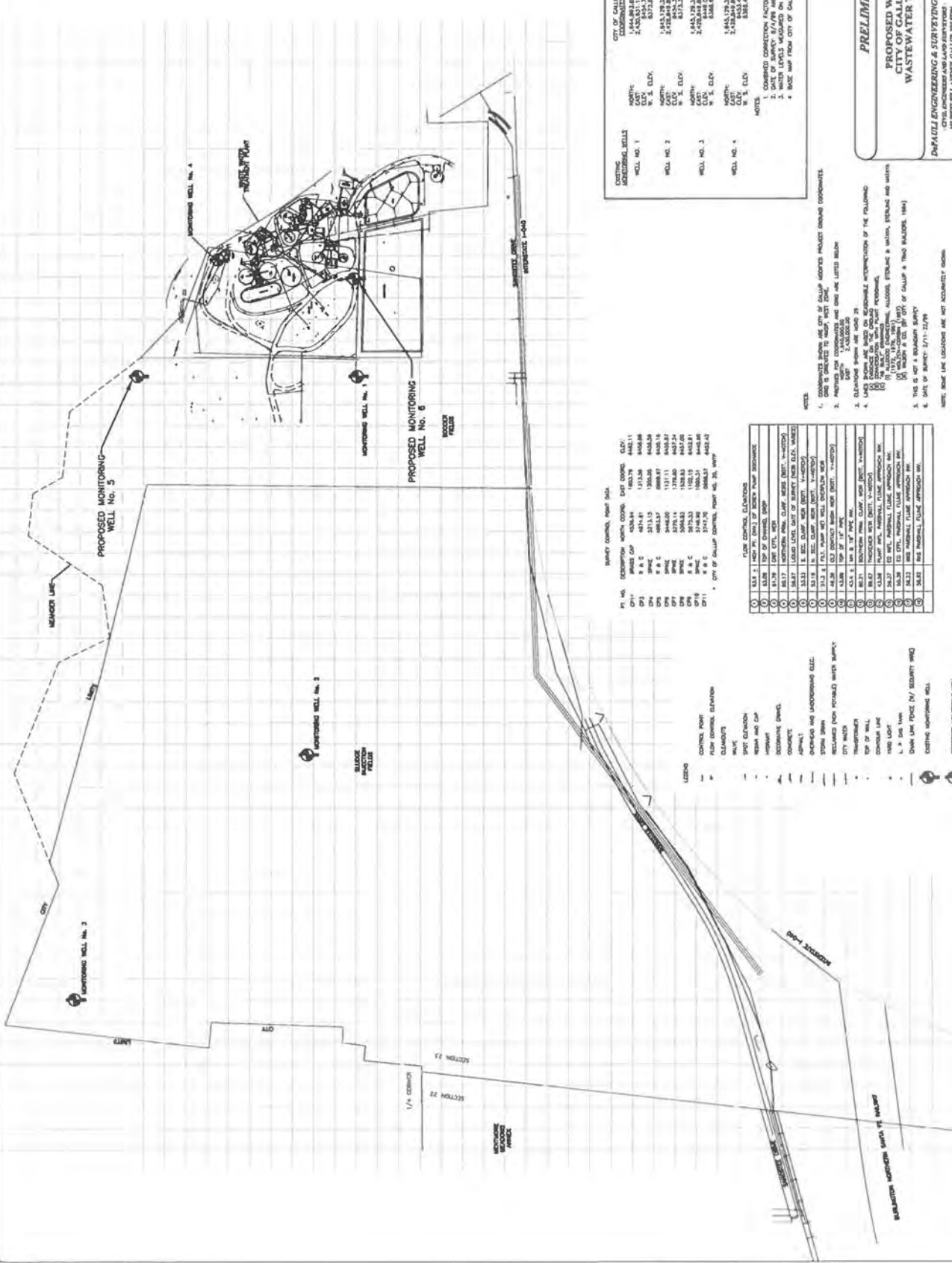
Robert J. George, Domestic Waste Team Leader
NMED-GWQB

RG:RG/rjg

Encs: Compact Disc: Video Recording of the Interior of the City of Gallup's Sludge Facility
Monitoring Wells MW-1, MW-2, MW-3 and WWTF Monitoring Well MW-4
Well Construction Logs for MW-2, MW-3 and MW-4
Ground Water Discharge Permit Monitoring Well Construction and Abandonment
Guidelines, Revision 1.1, March 2011

cc: Gary Munn, Chief Engineer, Gallup Joint Utilities, P.O. Box 1270, Gallup, NM 87305
(w/o enclosure)
Ernest Thompson, W/WW Superintendent, City of Gallup, P.O. Box 1270, Gallup, NM
87305 (w/o enclosures)
Dennis Wing, Project Manager, Severn Trent Environmental Services, P.O. Box 478,
Gallup NM 87305 (enclosures)
Marc DePauli PE, DePauli Engineering and Surveying LLC, 102 West Hill Ave, Gallup,
NM 87301 (w/o enclosures)
Edward Gonzales, PE, DePauli Engineering and Surveying LLC, 102 West Hill Ave,
Gallup, NM 87301 (w/o enclosures)

Exhibit B. Preliminary Plat



EXISTING MONITORING WELLS		CITY OF GALLUP		N.A.S.P.A. - WEST ZONE	
WELL NO.	COORDINATES	WELL NO.	COORDINATES	WELL NO.	COORDINATES
WELL NO. 1	1,444,012.84 2,420,088.95	WELL NO. 1	1,444,012.84 2,420,088.95	WELL NO. 1	1,444,012.84 2,420,088.95
WELL NO. 2	1,444,012.84 2,420,088.95	WELL NO. 2	1,444,012.84 2,420,088.95	WELL NO. 2	1,444,012.84 2,420,088.95
WELL NO. 3	1,444,012.84 2,420,088.95	WELL NO. 3	1,444,012.84 2,420,088.95	WELL NO. 3	1,444,012.84 2,420,088.95
WELL NO. 4	1,444,012.84 2,420,088.95	WELL NO. 4	1,444,012.84 2,420,088.95	WELL NO. 4	1,444,012.84 2,420,088.95

NOTES:

1. COORDINATES SHOWN ARE CITY OF GALLUP ADJUSTED PROJECTED UTM/STATE COORDINATES.
2. UTM IS DERIVED TO MATCH WEST ZONE.
3. PROJECTED UTM/STATE COORDINATES ARE SHOWN ON THIS SHEET.
4. ELEVATIONS SHOWN ARE MSL 20.
5. LAYOUT IS BASED ON AVAILABLE INFORMATION OF THE FOLLOWING:
 - (A) RECORD DRAWINGS, ALLOTTED ELEVATION & WIDTH, STRIKE AND WASH
 - (B) RECORD DRAWINGS, ALLOTTED ELEVATION & WIDTH, STRIKE AND WASH
 - (C) RECORD DRAWINGS, ALLOTTED ELEVATION & WIDTH, STRIKE AND WASH
 - (D) RECORD DRAWINGS, ALLOTTED ELEVATION & WIDTH, STRIKE AND WASH
 - (E) RECORD DRAWINGS, ALLOTTED ELEVATION & WIDTH, STRIKE AND WASH
6. THIS IS NOT A REBOUND SURVEY.
7. DATE OF SURVEY: 3/7/11 2:24 PM.

NOTE: THESE LAYOUT LOCATIONS ARE NOT NECESSARILY ACCURATE.

PL. NO.	DESCRIPTION	DATE	BY	REVISION
01	REVISION	11/13/08	WAS/ASR	ADD 11'
02	REVISION	11/13/08	WAS/ASR	ADD 11'
03	REVISION	11/13/08	WAS/ASR	ADD 11'
04	REVISION	11/13/08	WAS/ASR	ADD 11'
05	REVISION	11/13/08	WAS/ASR	ADD 11'
06	REVISION	11/13/08	WAS/ASR	ADD 11'
07	REVISION	11/13/08	WAS/ASR	ADD 11'
08	REVISION	11/13/08	WAS/ASR	ADD 11'
09	REVISION	11/13/08	WAS/ASR	ADD 11'
10	REVISION	11/13/08	WAS/ASR	ADD 11'
11	REVISION	11/13/08	WAS/ASR	ADD 11'

ITEM	DESCRIPTION	DATE	BY	REVISION
01	REVISION	11/13/08	WAS/ASR	ADD 11'
02	REVISION	11/13/08	WAS/ASR	ADD 11'
03	REVISION	11/13/08	WAS/ASR	ADD 11'
04	REVISION	11/13/08	WAS/ASR	ADD 11'
05	REVISION	11/13/08	WAS/ASR	ADD 11'
06	REVISION	11/13/08	WAS/ASR	ADD 11'
07	REVISION	11/13/08	WAS/ASR	ADD 11'
08	REVISION	11/13/08	WAS/ASR	ADD 11'
09	REVISION	11/13/08	WAS/ASR	ADD 11'
10	REVISION	11/13/08	WAS/ASR	ADD 11'
11	REVISION	11/13/08	WAS/ASR	ADD 11'

LEGEND:

- CONTROL POINT
- FLOW CONTROL ELEVATION
- CLAS/OLD
- W.L.S.
- PIPE ELEVATION
- REBAR AND CAP
- HEIGHT
- CONCRETE
- RECONSTRUCTED DRAIN
- DRAINAGE
- DRAINAGE (NO INTERFERING ELEV.)
- RECONSTRUCTED FROM EXISTING
- RECONSTRUCTED FROM EXISTING WITH SURVEY
- CITY WALK
- TRANSFERRED
- TOP OF WALL
- CONCRETE LINE
- WIRE LIGHT
- 1" OF GUS PLATE
- DRAIN LINE (NO INTERFERING ELEV.)
- CONCRETE OPERATING WELL
- PROPOSED OPERATING WELL

PRELIMINARY PLAT

PROPOSED WELL LOCATIONS
CITY OF GALLUP, NEW MEXICO
WASTEWATER TREATMENT PLANT

Date: 03/07/11
 Scale: 1" = 20'
 Drawn By: GAC
 Check By: GAC
 Title: PRELIMINARY PLAT

PRELIMINARY PLAT

PROPOSED WELL LOCATIONS
CITY OF GALLUP, NEW MEXICO
WASTEWATER TREATMENT PLANT

DATE: 03/07/11
 SCALE: 1" = 20'
 DRAWN BY: GAC
 CHECK BY: GAC
 TITLE: PRELIMINARY PLAT

DATE: 03/07/11
 SCALE: 1" = 20'
 DRAWN BY: GAC
 CHECK BY: GAC
 TITLE: PRELIMINARY PLAT

DATE: 03/07/11
 SCALE: 1" = 20'
 DRAWN BY: GAC
 CHECK BY: GAC
 TITLE: PRELIMINARY PLAT

DATE: 03/07/11
 SCALE: 1" = 20'
 DRAWN BY: GAC
 CHECK BY: GAC
 TITLE: PRELIMINARY PLAT

DATE: 03/07/11
 SCALE: 1" = 20'
 DRAWN BY: GAC
 CHECK BY: GAC
 TITLE: PRELIMINARY PLAT

Exhibit C. NMED Discharge Permit Renewal and Modification DP-1342.



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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



DAVE MARTIN
Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

November 20, 2011

The Honorable Jackie McKinney, Mayor
City of Gallup
P.O. Box 1270
Gallup, NM 87305

**RE: DISCHARGE PERMIT RENEWAL AND MODIFICATION, DP-1342,
CITY OF GALLUP WASTEWATER TREATMENT FACILITY**

Dear Mayor McKinney:

The New Mexico Environment Department (NMED) issues the enclosed Discharge Permit Renewal and Modification, DP-1342, to the City of Gallup (permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC.

The Discharge Permit contains terms and conditions that shall be complied with by the permittee and are enforceable by NMED pursuant to Section 20.6.2.3104 NMAC, WQA, NMSA 1978 §74-6-5 and §74-6-10. 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. Such conditions are listed at the beginning of the operational, monitoring and closure plans of this Discharge Permit.

Issuance of this Discharge Permit does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

Mayor Jackie McKinney, DP-1342
November 20, 2011
Page 2

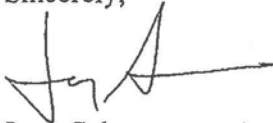
Pursuant to Paragraph (4) of Subsection H of 20.6.2.3109 NMAC, the term of the Discharge Permit shall be five years from the effective date. The term of this Discharge Permit will end on November 4, 2016.

NMED requests that the City of Gallup submit an application for renewal (or renewal and modification) at least 180 days prior to the date the Discharge Permit term ends.

An invoice for the Discharge Permit Fee of \$7,000.00 is being sent under separate cover. Payment of the Discharge Permit Fee must be received by NMED within 30 days of the date the Discharge Permit is issued.

If you have any questions, please contact Robert George at (505) 476-3648. Thank you for your cooperation during this Discharge Permit review.

Sincerely,



Jerry Schoeppner, Acting Chief
Ground Water Quality Bureau

JS:RG/rjg

Encs: Discharge Permit Renewal and Modification, DP-1342
Ground Water Discharge Permit Monitoring Well Construction and Abandonment
Conditions, Revision 1.1, March 2011

cc: Lance Allgood, Executive Director, Gallup Joint Utilities, P.O. Box 1270, Gallup, NM
87305 (permit)
Gary Munn, Chief Engineer, Gallup Joint Utilities, P.O. Box 1270, Gallup, NM 87305
(permit)
Ernest Thompson, W/WW Superintendent, City of Gallup, P.O. Box 1270, Gallup, NM
87305 (all enclosures)
Dennis Wing, Project Manager, Severn Trent Environmental Services, P.O. Box 478,
Gallup NM 87305 (all enclosures)
Scott A. McKittrick, Senior Geoscientist/Regional Manager, Souder, Miller and
Associates, 3451 Candelaria Road NM, Suite D, Albuquerque, NM 87107-1948
(permit)
Erin Trujillo, SWQB (permit)
District Manager, NMED District I (permit)
NMED Gallup Field Office (permit)

GROUND WATER DISCHARGE PERMIT RENEWAL AND MODIFICATION
City of Gallup Wastewater Treatment Facility, DP-1342

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this Discharge Permit Renewal and Modification (Discharge Permit), DP-1342, to the City of Gallup (permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC.

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

The activities which produce the discharge, the location of the discharge, and the quantity, quality and flow characteristics of the discharge are briefly described as follows:

Up to 3.5 million gallons per day (MGD) of domestic wastewater is received, treated and discharged at the City of Gallup's municipal wastewater treatment facility (WWTF). Treated wastewater is reused throughout the City (as reclaimed wastewater) for irrigation pursuant to Discharge Permit DP-95. Treated wastewater that is not reused is discharged to the Rio Puerco of the West pursuant to National Pollutant Discharge Elimination System (NPDES) permit NM0020672 and this Discharge Permit.

The modification consists of: (1) increasing the discharge volume from 1.3 MGD to 3.5 MGD, (2) adding the NPDES outfall discharge location under this Discharge Permit, and; (3) including four asphalt-lined sludge drying/storage beds and a synthetically lined reserve impoundment at the WWTF under this Discharge Permit.

The discharge contains water contaminants which may be elevated above the standards of Section 20.6.2.3103 NMAC and/or the presence of toxic pollutants as defined in Subsection WW of 20.6.2.7 NMAC. The facility is located at 800 Sweetwater Place, Gallup, in Section 23, Township 15 N, Range 19 W, McKinley County. Ground water most likely to be affected is at a depth of approximately 100 feet and has a total dissolved solids concentration of approximately 1000 milligrams per liter.

The original Discharge Permit was issued on November 15, 1996 and subsequently renewed on April 11, 2001. The permittee's application consists of the materials submitted by Souder, Miller and Associates on behalf of the permittee dated February 27, 2009 and materials contained in the administrative record prior to issuance of this Discharge Permit. The discharge shall be managed in accordance with all conditions and requirements of this Discharge Permit.

Pursuant to Section 20.6.2.3109 NMAC, NMED reserves the right to require a Discharge Permit Modification in the event NMED determines that the requirements of 20.6.2 NMAC are being or

may be violated or the standards of Section 20.6.2.3103 NMAC are being or may be violated. This may include a determination that structural controls and/or management practices approved under this Discharge Permit are not protective of ground water quality, and that more stringent requirements to protect ground water quality may be required by NMED. The permittee may be required to implement abatement of water pollution and remediate ground water quality.

Issuance of this Discharge Permit does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

The following acronyms and abbreviations may be used in this Discharge Permit:

Abbreviation	Explanation	Abbreviation	Explanation
BOD ₅	biochemical oxygen demand (5-day)	NTU	nephelometric turbidity units
CFR	Code of Federal Regulations	Org	organisms
Cl	chloride	TDS	total dissolved solids
EPA	United States Environmental Protection Agency	TKN	total Kjeldahl nitrogen
gpd	gallons per day	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
mL	milliliters	UPC	Uniform Plumbing Code
NMAC	New Mexico Administrative Code	WQA	New Mexico Water Quality Act
NMED	New Mexico Environment Department	WQCC	Water Quality Control Commission
NMSA	New Mexico Statutes Annotated	WWTF	Wastewater Treatment Facility
NO ₃ -N	nitrate-nitrogen		

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. The permittee is discharging effluent or leachate from the facility so that such effluent or leachate may move directly or indirectly into ground water within the meaning of Section 20.6.2.3104 NMAC.
2. The permittee is discharging effluent or leachate from the facility so that such effluent or leachate may move into ground water of the State of New Mexico which has an existing concentration of 10,000 milligrams per liter or less of total dissolved solids within the meaning of Subsection A of 20.6.2.3101 NMAC.
3. The discharge from the facility is not subject to any of the exemptions of Section 20.6.2.3105 NMAC.

III. AUTHORIZATION TO DISCHARGE

The permittee is authorized to receive, treat and discharge up to 3.5 MGD of domestic wastewater at the City of Gallup's municipal wastewater treatment facility (WWTF). Discharge of wastewater to the abandoned flow equalization basin at the WWTF is prohibited. Treated wastewater is discharged to the Rio Puerco of the West pursuant to National Pollutant Discharge Elimination System (NPDES) permit NM0020672 and this Discharge Permit.

Treated domestic wastewater for reuse (reclaimed wastewater) is authorized for use in accordance with this Discharge Permit as follows:

- Incidental amounts for wash, process and irrigation water at the City of Gallup WWTF,
- Transfers of up to 1.0 MGD to the Fox Run Golf Course in accordance with DP-95,
- Transfers of up to 0.2 MGD to the City's Sports Complex in accordance with DP-95,
- Transfers of up to 0.05 MGD to the City's Soccer Field in accordance with DP-95,
- Transfers of undefined amounts in accordance with Discharge Permits issued to other facilities in the future, and;
- Incidental amounts for temporary discharges in and around the City of Gallup including, but not limited to: dust control, construction purposes and fire suppression that NMED has determined do not require a Discharge Permit when transferred to users in accordance with this Discharge Permit. The authorized delivery point for these discharges is at the WWTF.

This Discharge Permit sets forth separate requirements for the discharge and transfer of treated and/or reclaimed wastewater. The separate requirements are identified in individual Parts, which include:

- **Part A. Applicable to all parts**
- **Part B. Applicable to the WWTF and discharges of treated wastewater to the Rio Puerco of the West**
- **Part C. Applicable to transfers of Class 1B reclaimed wastewater to other facilities with separate NMED issued ground water Discharge Permits and for temporary uses that do not require a Discharge Permit**

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

IV. CONDITIONS

The conditions of this Discharge Permit shall be complied with by the permittee and are enforceable by NMED. The permittee is authorized to discharge water contaminants subject to the following conditions:

OPERATIONAL PLAN

Part A. Applicable to all parts

#	<i>Operating Conditions</i>
1.	<p>The permittee shall implement the following operational plan to ensure compliance with Title 20, Chapter 6, Parts 1 and 2 NMAC.</p> <p>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC]</p>
2.	<p>The permittee shall operate in a manner such that standards and requirements of Sections 20.6.2.3101 and 20.6.2.3103 NMAC are not violated.</p> <p>[20.6.2.3101 NMAC, 20.6.2.3103 NMAC, Subsections B and C of 20.6.2.3109 NMAC]</p>
3.	<p>Treated and/or reclaimed wastewater discharged following the final treatment process shall not exceed the following limitation:</p> <p>Total Nitrogen: 20 mg/L</p> <p>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC]</p>
4.	<p>The permittee shall utilize operators, certified by the State of New Mexico at the appropriate level, to operate the wastewater collection, treatment and disposal systems. The operations and maintenance of all or any part of the wastewater system shall be performed by, or under the direct supervision of a certified operator.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, 20.7.4 NMAC]</p>

Part B. Applicable to the WWTF and discharges of treated wastewater to the Rio Puerco of the West

#	<i>Operational Actions with Implementation Deadlines</i>
5.	<p>Within 90 days of the effective date of this Discharge Permit (by February 18, 2012), the permittee shall submit record drawings 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 all construction improvements made to the WWTF from 2006 to the present, including the synthetically lined reserve impoundment, sludge drying beds, clarifiers, aeration basin, effluent filters and sludge handling processes (belt press, sludge dryer) to NMED.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, 20.6.2.1202 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]</p>

#	<i>Operating Conditions</i>
6.	<p>The permittee shall maintain fences around the WWTF to control 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. Fences shall be maintained throughout the term of this Discharge Permit.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC]</p>
7.	<p>The permittee shall maintain signs indicating that the wastewater at the WWTF is not potable. Signs shall be posted at the facility entrance and other areas where there is potential for public contact with wastewater. All signs shall be printed in English, Spanish and Navajo and shall remain visible and legible for the term of this Discharge Permit.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC]</p>
8.	<p>The permittee shall maintain the reserve impoundment liner and sludge drying bed liners in such a manner as to avoid conditions which could affect the structural integrity of the liners. Such conditions include or may be characterized by 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; and • evidence of berm subsidence. <p>Vegetation growing around the impoundment shall be routinely controlled by mechanical removal in a manner that is protective of the impoundment liner.</p> <p>The permittee shall visually inspect the impoundment, surrounding berms and sludge drying beds on a monthly basis to ensure proper maintenance. In the event that inspection reveals any evidence of damage that threatens the structural integrity of the impoundment or sludge drying beds, or that may result in an unauthorized discharge, the permittee shall enact the contingency plan set forth in this Discharge Permit.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC]</p>
9.	<p>The permittee shall preserve a minimum of two feet of freeboard between the liquid level in the reserve impoundment and the elevation of the top of the impoundment liner. In the event that the permittee determines that two feet of freeboard cannot be preserved in the impoundment, the permittee shall enact the contingency plan set forth in this Discharge Permit.</p>

	[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC]
10.	The permittee shall properly manage all solids generated by the treatment system to maintain effective operation by removing solids as necessary in accordance with accepted process control methods. Solids removed from the treatment process shall be contained, transported, and disposed of in accordance with all local, state, and federal regulations and in accordance with Discharge Permit DP-418. The permittee shall maintain records of solids disposal.
	[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC]

Part C. Applicable to transfers of Class 1B reclaimed wastewater to other facilities with separate NMED issued ground water Discharge Permits and for temporary uses that do not require a Discharge Permit

#	<i>Operating Conditions</i>			
11.	Reclaimed wastewater discharged following the final treatment process shall not exceed the following limitations:			
	<u>Test</u>	<u>30-day geometric mean</u>	<u>30-day average</u>	<u>maximum</u>
	Fecal coliform bacteria OR E. coli Bacteria:	100 Org/100 mL <hr/> 126 Org/100 mL	N/A	200 Org/100 mL <hr/> 235 Org/100 mL
	BOD ₅ :	N/A	30 mg/L	45 mg/L
	TSS:	N/A	30 mg/L	45 mg/L
	TRC:	N/A	Monitor Only	Monitor Only
	[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC]			
12.	In the event that a cross-connection with fresh water exists at the WWTF or in the reclaimed wastewater transfer system, the permittee shall institute a backflow prevention method to protect wells and public water supply systems from contamination by reclaimed wastewater at the WWTF and during transfer to the re-use areas. Backflow prevention shall be achieved by a total disconnect (physical air gap separation between the discharge pipe and the liquid surface at least twice the diameter of the discharge pipe), or by a reduced pressure principal backflow prevention assembly (RP) installed on the line between the fresh water supply wells or public water supply and the reclaimed wastewater delivery system. Backflow prevention shall be maintained at all times.			
	RP devices shall be inspected and tested by a certified backflow prevention assembly tester at the time of installation, repair or relocation and at least on an annual basis thereafter.			

	<p>The backflow prevention assembly tester shall have successfully completed a 40-hour backflow prevention course based on the University of Southern California's Backflow Prevention Standards and Test Procedures (or approved equivalent), and obtained certification demonstrating completion. A malfunctioning RP device shall be repaired or replaced within 30 days of discovery, and use of all supply lines associated with the RP device shall cease until repair or replacement has been completed. Copies of the inspection and maintenance records and test results for each RP device associated with the backflow prevention program shall be maintained by the permittee at a location available for inspection by NMED.</p> <p>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC]</p>
13.	<p>The permittee shall meet the following specific requirements for temporary above ground discharges of reclaimed domestic wastewater that do not require a Discharge Permit:</p> <ul style="list-style-type: none">a) Reclaimed wastewater shall be delivered from the reuse storage tank (old chlorine contact chamber).b) Access to the reclaimed wastewater shall be restricted. Reclaimed wastewater shall only be transferred to the users by the permittee or its designate. Public access to the reclaimed wastewater system is prohibited.c) All recipients of reclaimed wastewater for temporary uses shall be notified in writing of the following:<ul style="list-style-type: none">1) Reclaimed wastewater received from the permittee is approved for the following temporary uses only: construction purposes, soil compaction (other than for potable water lines), mixing of mortars, slurries or cement, dust control on roads and construction sites and fire suppression.2) Transport vehicles and storage tanks containing reclaimed wastewater shall contain permanent signs/markings identifying the contents as non-potable water and advising against consumption in English.3) Above ground use of reclaimed wastewater shall not result in excessive standing or pooling of wastewater. Application shall not be conducted at times when the receiving area is saturated or frozen. Spraying and misting of the reclaimed wastewater shall be minimized. <p>[20.6.2.3109 NMAC]</p>

MONITORING AND REPORTING

Part A. Applicable to all parts

#	<i>Monitoring Conditions</i>
14.	<p>The permittee shall conduct the following monitoring, reporting, and other requirements listed below in accordance with the monitoring requirements of this Discharge Permit.</p> <p>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC, 20.6.2.3107 NMAC]</p>
15.	<p>METHODOLOGY – Unless otherwise approved in writing by NMED, the permittee shall conduct sampling and analysis in accordance with the most recent edition of the following documents:</p> <ul style="list-style-type: none"> a) American Public Health Association, Standard Methods for the Examination of Water and Wastewater (18th, 19th or current) b) U.S. Environmental Protection Agency, Methods for Chemical Analysis of Water and Waste c) U.S. Geological Survey, Techniques for Water Resources Investigations of the U.S. Geological Survey d) American Society for Testing and Materials, Annual Book of ASTM Standards, Part 31. Water e) U.S. Geological Survey, et al., National Handbook of Recommended Methods for Water Data Acquisition f) Federal Register, latest methods published for monitoring pursuant to Resource Conservation and Recovery Act regulations g) Methods of Soil Analysis: Part 1. Physical and Mineralogical Methods; Part 2. Microbiological and Biochemical Properties; Part 3. Chemical Methods, American Society of Agronomy <p>[Subsection B of 20.6.2.3107 NMAC]</p>
16.	<p>The permittee shall submit quarterly monitoring reports to NMED for the most recently completed quarterly period by the 1st of February, May, August and November each year.</p> <p>Quarterly monitoring shall be performed during the following periods and submitted as follows:</p> <ul style="list-style-type: none"> • January 1st through March 31st (first quarter) – due by May 1st • April 1st through June 30th (second quarter) – due by August 1st • July 1st through September 30th (third quarter) – due by November 1st • October 1st through December 31st (fourth quarter) – due by February 1st <p>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]</p>

17.	<p>All flow meters used for reporting purposes under this Discharge Permit shall be capable of having their accuracy ascertained under actual working (field) conditions. A field calibration method shall be developed for each flow meter and that method shall be used to check the accuracy of each respective meter. Field calibrations shall be performed upon repair or replacement of a flow measurement device and, at a minimum, on an annual basis.</p> <p>Flow meters shall be calibrated to within plus or minus 10 percent of actual flow, as measured under field conditions. Field calibrations shall be performed by an individual knowledgeable in flow measurement and in the installation/operation of the particular device in use. A flow meter calibration report shall be prepared for each flow measurement device at the frequency calibration is required. The flow meter calibration report shall include the following information:</p> <ul 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. <p>The permittee shall submit the results of flow meter field calibrations to NMED in the next monitoring report due following completion of the calibration(s).</p> <p>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC]</p>
18.	<p>The permittee shall visually inspect all flow meters used for reporting purposes under this Discharge Permit on a monthly basis for evidence of malfunction. 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>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC]</p>

Part B. Applicable to the WWTF and discharges of treated wastewater to the Rio Puerco of the West

#	<i>Monitoring Actions with Implementation Deadlines</i>
19.	<p>Within 60 days following the effective date of this Discharge Permit (by January 19, 2012), the permittee shall submit a written monitoring well location proposal for review and approval by NMED. The proposal shall designate the locations of all monitoring wells required to be installed by this Discharge Permit. The proposal shall include, at a minimum, the following information:</p> <ul style="list-style-type: none"> a) A map showing the proposed location of the monitoring well(s) from the boundary of the source it is intended to monitor. b) A written description of the specific location proposed for the monitoring well(s) including the distance (in feet) and direction of the monitoring well(s) 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 leachfield; 30 feet southeast of the re-use area 150 degrees from north. c) A statement describing the ground water flow direction beneath the facility, and documentation and/or data supporting the determination. <p>All monitoring well locations shall be approved by NMED prior to installation.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC]</p>
20.	<p>Within 1 year of the effective date of this Discharge Permit (by November 20, 2012), the permittee shall install the following new monitoring wells:</p> <ul style="list-style-type: none"> • One monitoring well (MW-5) located hydrologically downgradient of NPDES Permit #NM0020672 Outfall 001. • One monitoring well (MW-6) located 20 to 50 feet hydrologically downgradient of the reserve impoundment. <p>The well(s) shall be completed in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.1, March 2011. Construction and lithologic logs shall be submitted to NMED within 30 days of well completion.</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 or discharge of wastewater to that source, or discharge of wastewater from the facility.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]</p>
21.	<p>Within 60 days following the installation of MW-5 and MW-6, the permittee shall survey all wells approved by NMED for Discharge Permit monitoring purposes to a U.S.</p>

	<p>Geological Survey (USGS) or other permanent benchmark. Survey data shall include northing, easting and elevation to the nearest hundredth of a foot or shall be in accordance with the "Minimum Standards for Surveying in New Mexico" (12.8.2 NMAC). A survey elevation shall be established at the top-of-casing, with a permanent marking indicating the point of survey. The survey shall 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>Depth-to-water shall be measured to the nearest hundredth of a foot in all surveyed wells, and the data shall be used to develop a ground water elevation contour map showing the location of all monitoring wells and the direction and gradient of ground water flow at the facility. The data and ground water elevation contour map shall be submitted to NMED within 30 days of survey completion.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]</p>
22.	<p>Once prior to the date that the term of this Discharge Permit ends, NMED shall have the option to perform downhole inspections of all monitoring wells identified in this Discharge Permit. NMED shall establish the inspection date and provide at least 60 days notice to the permittee by certified mail. The permittee shall have any existing dedicated pumps removed at least 48 hours prior to NMED inspection to allow adequate settling time of sediment agitated from pump removal.</p> <p>Should a facility not have existing dedicated pumps, but decide to install pumps in any of the monitoring wells, NMED shall be notified at least 90 days prior to pump installation so that a downhole well inspection(s) can be scheduled prior to pump placement.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, Subsection D of 20.6.2.3107 NMAC]</p>

#	<i>Ground Water Monitoring Conditions</i>
23.	<p>The permittee shall perform quarterly ground water sampling in the following monitoring wells and analyze the samples for dissolved NO₃-N, TKN, TDS and Cl:</p> <ul style="list-style-type: none"> • MW-4, intended to be located hydrologically downgradient of the (now abandoned) flow equalization basin and located to the north of the WWTF. • MW-5, intended to be located hydrologically downgradient of NPDES Permit #NM0020672 Outfall 001. • MW-6, intended to be located 20 – 50 feet hydrologically downgradient of the synthetically lined reserve impoundment.

Ground water sample collection, preservation, transport and analysis shall be performed according to the following procedure:

- a) Measure the depth-to-ground water from the top of the well casing to the nearest hundredth of a foot.
- b) Purge three well volumes of water from the well prior to sample collection.
- c) Obtain samples from the well for analysis.
- d) Properly prepare, preserve and transport samples.
- e) Analyze samples in accordance with the methods authorized in this Discharge Permit.

Depth-to-water measurements, analytical results, including the laboratory QA/QC summary report, and a facility layout map showing the location and number of each well shall be submitted to NMED in the quarterly monitoring reports.

[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]

24. The permittee shall perform annual ground water sampling in the following monitoring wells and analyze the samples for the following:

Dissolved (except where noted) inorganic constituents

- | | |
|------------|------------------------------|
| • aluminum | • manganese |
| • arsenic | • molybdenum |
| • barium | • mercury (total unfiltered) |
| • boron | • pH (total unfiltered) |
| • cadmium | • nickel |
| • chromium | • selenium |
| • cobalt | • silver |
| • copper | • sulfate |
| • cyanide | • uranium |
| • fluoride | • zinc |
| • iron | |
| • lead | |

Organic constituents

- | | |
|----------------------------------|-------------------------------------|
| • benzene | • Phenols |
| • benzo-a-pyrene | • Polychlorinated biphenyls (PCBs) |
| • carbon tetrachloride | • toluene |
| • chloroform | • 1,1,2,2-tetrachloroethane |
| • 1,1-dichloroethane | • 1,1,2,2-tetrachloroethylene (PCE) |
| • 1,2-dichloroethane (EDC) | • 1,1,1-trichloroethane |
| • 1,1-dichloroethylene (1,1-DCE) | |

- ethylbenzene
- ethylene dibromide (EBD)
- methylene chloride
- PAHs: total naphthalene plus monomethylnaphthalenes
- 1,1,2-trichloroethane
- 1,1,2-trichloroethylene (TCE)
- vinyl chloride
- xylenes (total)

The permittee shall sample:

- MW-5, intended to be located hydrologically downgradient of NPDES Permit #NM0020672 Outfall 001.

Ground water sample collection, preservation, transport and analysis shall be performed according to the following procedure:

- a) Purge three well volumes of water from the well prior to sample collection.
- b) Obtain samples from the well for analysis.
- c) Properly prepare, preserve and transport samples.
- d) Analyze samples in accordance with the methods authorized in this Discharge Permit.

Analytical results, including the laboratory QA/QC summary report, and a facility layout map showing the location and number of each well shall be submitted to NMED in the monitoring report due by February 1st each year.

[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]

25. The permittee shall develop a ground water elevation contour map on an semi-annual basis using the top of casing elevation data from the monitoring well survey and quarterly depth-to-water measurements obtained from the ground water monitoring wells required by this Discharge Permit.

The ground water elevation contour map shall depict the ground water flow direction based on the ground water elevation contours. Ground water elevations between monitoring well locations shall be estimated using common interpolation methods. A contour interval appropriate to the data shall be used, but in no case shall the interval be greater than two feet. Ground water elevation contour maps shall depict the ground water flow direction, using arrows, based on the orientation of the ground water elevation contours, and the location and identification of each monitoring well and contaminant source. The ground water elevation contour maps shall be submitted to NMED in the monitoring reports due by February 1st and August 1st each year.

[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC]

#	<i>Facility Monitoring Conditions</i>
26.	<p>The permittee shall measure the totalized, average daily and peak daily volume of raw wastewater discharged to the treatment facility each month using a primary measuring device (equipped with head sensing, totalizing and chart recording/data logging mechanisms).</p> <p>The totalized, average daily and peak daily discharge volumes for each month shall be submitted to NMED in the quarterly monitoring reports.</p> <p>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC]</p>
27.	<p>The permittee shall measure the totalized, average daily and peak daily volume of wastewater discharged from the WWTF to the Rio Puerco of the West each month using a primary measuring device (equipped with head sensing, totalizing and chart recording/data logging mechanisms).</p> <p>The totalized, average daily and peak daily discharge volumes for each month shall be submitted to NMED in the quarterly monitoring reports.</p> <p>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC]</p>
28.	<p>The permittee shall collect a sample of treated wastewater following the final treatment process on a quarterly basis and analyze the samples for TKN, NO₃-N, TDS and Cl. Samples shall be properly prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. Analytical results shall be submitted to NMED in the quarterly monitoring reports.</p> <p>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]</p>
29.	<p>On an annual basis, the permittee shall collect a 24-hour flow weighted composite sample of treated wastewater following the final treatment process and analyze the sample for the following:</p> <p><u><i>Inorganic constituents</i></u></p> <ul style="list-style-type: none"> • aluminum • arsenic • barium • boron • cadmium • chromium • cobalt • copper • cyanide • manganese • molybdenum • mercury • pH • nickel • selenium • silver • sulfate • uranium

- fluoride
- iron
- lead
- zinc

On an annual basis, the permittee shall collect a grab sample of treated wastewater following the final treatment process and analyze the sample for the following:

Organic constituents

- benzene
- benzo-a-pyrene
- carbon tetrachloride
- chloroform
- 1,1-dichloroethane
- 1,2-dichloroethane (EDC)
- 1,1-dichloroethylene (1,1-DCE)
- ethylbenzene
- ethylene dibromide (EBD)
- methylene chloride
- PAHs: total naphthalene plus monomethylnaphthalenes
- Phenols
- Polychlorinated biphenyls (PCBs)
- toluene
- 1,1,2,2-tetrachloroethane
- 1,1,2,2-tetrachloroethylene (PCE)
- 1,1,1-trichloroethane
- 1,1,2-trichloroethane
- 1,1,2-trichloroethylene (TCE)
- vinyl chloride
- xylenes (total)

Samples shall be properly prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. Analytical results shall be submitted to NMED in the monitoring reports due by February 1st each year.

[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]

Part C. Applicable to transfers of Class 1B reclaimed wastewater to other facilities with separate NMED issued ground water Discharge Permits and for temporary uses that do not require a Discharge Permit

#	Facility Monitoring Conditions
30.	<p>The permittee shall measure the monthly volume of reclaimed wastewater transferred from the WWTF the golf course/sports complex re-use areas using a totalizing flow meter located on the transfer line at the WWTF.</p> <p>The monthly meter readings shall be reported pursuant to DP-95.</p> <p>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC]</p>

31.	<p>The permittee shall measure the monthly volume of reclaimed wastewater transferred from the WWTF the soccer complex re-use area using a totalizing flow meter located on the transfer line at the WWTF.</p> <p>The monthly meter readings shall be reported pursuant to DP-95.</p> <p>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC]</p>
32.	<p>The permittee shall perform the following analyses on reclaimed wastewater samples collected following the final treatment process using the following sampling method and frequency:</p> <ul style="list-style-type: none"> • Fecal coliform OR E. coli bacteria: grab sample at peak daily flow once per week. • BODs: six-hour composite sample once per week. • TSS: six-hour composite sample once per week. • TRC concentrations: record whenever fecal coliform or E. coli samples are collected. <p>Samples shall be properly prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. Analytical results and a copy of the log of TRC concentrations shall be submitted to NMED in the quarterly monitoring reports.</p> <p>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]</p>

CONTINGENCY PLAN

Part A. Applicable to all parts

#	Contingency Conditions
33.	<p>In the event that analytical results of a quarterly treated wastewater sample indicate an exceedance of the total nitrogen limitation set in this Discharge Permit, the permittee shall collect and analyze a second sample within 30 days of the first sample analysis date. In the event the second sample results indicate that the limitation is continuing to be exceeded, the following contingency plan shall be enacted:</p> <ol style="list-style-type: none"> a) Within 15 days of the second sample analysis date indicating that the limitation is continuing to be exceeded, the permittee shall <ol style="list-style-type: none"> i) notify NMED that the contingency plan is being enacted; and ii) 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. Any abnormalities discovered shall be corrected. A report detailing the corrections made shall be submitted to NMED within 30 days of correction.
- e) In the event that any analytical results from monthly wastewater sampling indicate an exceedance of the total nitrogen limitation, the permittee shall propose to modify operational procedures and/or upgrade the treatment process to achieve the total nitrogen limit by submitting a corrective action plan to NMED for approval. The plan shall include a schedule for completion of corrective actions and shall be submitted within 90 days of the second sample analysis date indicating that the limitation is continuing to be exceeded. The permittee shall initiate implementation of the plan following approval by NMED.

When analytical results from three consecutive months of wastewater sampling do not exceed the limitation, the permittee is authorized to return to a quarterly monitoring frequency.

[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]

34. In the event that a release (commonly known as a "spill") occurs that is not authorized under this Discharge Permit, 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.

Within 24 hours following discovery of the unauthorized discharge, the permittee shall verbally notify NMED and provide the following information:

- 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.

Within one week following discovery of the unauthorized discharge, the permittee shall submit written notification to NMED with the information listed above and any pertinent updates.

Within 15 days following discovery of the unauthorized discharge, the permittee shall submit a corrective action report/plan to NMED describing any corrective actions taken and/or to be taken relative to the unauthorized discharge that includes the following:

- 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

	<p>nature.</p> <p>c) A schedule for completion of proposed actions.</p> <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, the permittee may be required to abate water pollution pursuant to Sections 20.6.2.4000 though 20.6.2.4115 NMAC.</p> <p>Nothing in this condition shall be construed as relieving the permittee of the obligation to comply with all requirements of Section 20.6.2.1203 NMAC.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, 20.6.2.1203 NMAC]</p>
35.	<p>In the event that NMED or the permittee identifies any failures of the discharge plan or this Discharge Permit not specifically noted herein, NMED may require the permittee to submit a corrective action plan 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>[NMSA 1978, § 74-6-5.D, Subsections B and E of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107NMAC]</p>

Part B. Applicable to the WWTF and discharges of treated wastewater to the Rio Puerco of the West

#	Contingency Conditions
36.	<p>In the event that ground water monitoring indicates that a ground water quality standard identified in Section 20.6.2.3103 NMAC is exceeded; the total nitrogen concentration in ground water is greater than 10 mg/L; or a toxic pollutant (defined in Subsection WW of 20.6.2.7 NMAC) is present in a ground water sample and in any subsequent ground water sample collected from a monitoring well required by this Discharge Permit, the permittee shall enact the following contingency plan:</p> <p>Within 60 days of the subsequent sample analysis date, the permittee shall propose measures to ensure that the exceedance of the standard or the presence of a toxic pollutant will be mitigated by submitting a corrective action plan to NMED for approval. The corrective action plan shall include a description of the proposed actions to control the source and an associated completion schedule. The plan shall be enacted as approved by NMED.</p> <p>Once 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</p>

	<p>requirements), this condition shall apply until the permittee has fulfilled the requirements of this condition and ground water monitoring confirms for a minimum of two years of consecutive ground water sampling events that the standards of Section 20.6.2.3103 NMAC are not exceeded and toxic pollutants are not present in ground water.</p> <p>The permittee may be required to abate water pollution pursuant to Sections 20.6.2.4000 through 20.6.2.4115 NMAC, should the corrective action plan not result in compliance with the standards and requirements set forth in Section 20.6.2.4103 NMAC within 180 days of confirmed ground water contamination.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]</p>
37.	<p>In the event that information available to NMED indicates that a well(s) is not constructed in a manner consistent with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.1, March 2011; contains insufficient water to effectively monitor ground water quality; or is not completed in a manner that is protective of ground water quality, the permittee shall install a replacement well(s) within 120 days following notification from NMED. The permittee shall survey the replacement monitoring well(s) within 150 days following notification from NMED.</p> <p>Replacement well location(s) shall be approved by NMED prior to installation and completed in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.1, March 2011. The permittee shall submit construction and lithologic logs and survey data to NMED within 60 days following well completion.</p> <p>Upon completion of the replacement monitoring well(s), the monitoring well(s) requiring replacement shall be properly plugged and abandoned. Well plugging, abandonment and documentation of the abandonment procedures shall be completed in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.1, March 2011, and all applicable local, state, and federal regulations. The well abandonment documentation shall be submitted to NMED within 60 days of completion of well plugging activities.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC]</p>
38.	<p>In the event that ground water flow information obtained pursuant to this Discharge Permit indicates that a monitoring well(s) is not located hydrologically downgradient of the discharge location(s) it is intended to monitor, the permittee shall install a replacement well(s) within 120 days following notification from NMED. The permittee shall survey the replacement monitoring well(s) within 150 days following notification from NMED.</p> <p>Replacement well location(s) shall be approved by NMED prior to installation and completed in accordance with the attachment titled <i>Ground Water Discharge Permit</i></p>

	<p><i>Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.1, March 2011. The permittee shall submit construction and lithologic logs within 30 days following well completion.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC]</p>
39.	<p>In the event that inspection findings reveal significant damage likely to affect the structural integrity of the lined reserve impoundment or sludge drying beds, or their ability to contain contaminants, the permittee shall propose the repair or replacement of the structures or their liners by submitting a corrective action plan to NMED for approval. The plan shall be submitted to NMED within 30 days after discovery by the permittee or following notification from NMED that significant damage is evident. The corrective action plan shall include a schedule for completion of corrective actions and the permittee shall initiate implementation of the plan following approval by NMED.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]</p>
40.	<p>In the event that a minimum of two feet of freeboard cannot be preserved in the reserve impoundment, the permittee shall take actions authorized by this Discharge Permit and all applicable local, state, and federal regulations to restore the required freeboard.</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 be immediately implemented to restore two feet of freeboard by submitting a short-term corrective action plan to NMED for approval. Examples of short-term corrective actions include: removing excess wastewater from the impoundment through pumping and hauling; or reducing the volume of wastewater discharged to the impoundment. The plan shall include a schedule for completion of corrective actions and shall be submitted within 15 days following the date when the two feet of freeboard limit was initially discovered. The permittee shall initiate implementation of the plan following approval by NMED.</p> <p>In the event that the short-term corrective actions fail to restore two feet of freeboard, the permittee shall propose permanent corrective actions in a long-term corrective action plan submitted to NMED within 90 days following failure of the short-term corrective action plan. Examples include: the installation of an additional storage impoundment, or a significant/permanent reduction in the volume of wastewater discharged to the impoundment. The plan shall include a schedule for completion of corrective actions and implementation of the plan shall be initiated following approval by NMED.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]</p>

Part C. Applicable to transfers of Class 1B reclaimed wastewater to other facilities with separate NMED issued ground water Discharge Permits and for temporary uses that do not require a Discharge Permit

#	Contingency Conditions
41.	<p>In the event that analytical results of a reclaimed domestic wastewater sample indicates an exceedance of any of the maximum limitations for BOD₅, TSS, or fecal coliform/ E. coli bacteria set by this Discharge Permit, the permittee shall collect and analyze a second sample within 24 hours after becoming aware of the exceedance. In the event the second sample results indicate that any maximum limitation is continuing to be exceeded (i.e., confirmed exceedance), the contingency plan below shall be enacted.</p> <p style="text-align: center;">AND / OR</p> <p>In the event that analytical results of a reclaimed domestic wastewater sample indicates an exceedance of any of the 30-day average (or geometric mean) limitations for BOD₅, TSS, or fecal coliform/ E. coli bacteria set by this Discharge Permit (i.e., confirmed exceedance), the contingency plan below shall be enacted.</p> <p><u>Contingency Plan</u></p> <ul style="list-style-type: none"> a) Within 24 hours of becoming aware of a confirmed exceedance (as identified above), the permittee shall: <ul style="list-style-type: none"> i) notify NMED that the contingency plan is being enacted; and ii) submit copies of the recent analytical results indicating an exceedance to NMED. b) The permittee shall immediately cease transferring reclaimed domestic wastewater to all re-use areas and to all temporary uses. 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. Any abnormalities discovered shall be corrected. A report detailing the corrections made shall be submitted to NMED within 30 days following correction. <p>When the analytical results from samples of reclaimed domestic wastewater, sampled as required by this Discharge Permit, no longer indicate an exceedance of any of the maximum limitations, the permittee may resume discharging reclaimed wastewater to the re-use area.</p> <p>If a facility is required to enact the contingency plan more than two times in a 12-month period, the permittee shall propose to modify operational procedures and/or upgrade the treatment process to achieve consistent compliance with the maximum and 30-day average limitations by submitting a corrective action plan for NMED approval. The plan shall include a schedule for completion of corrective actions and shall be submitted within 60 days following the second sample analysis date. The permittee shall initiate implementation of the plan following approval by NMED. Prior to recommencing</p>

<p>discharge to the re-use area, additional sampling of any stored reclaimed wastewater may be required by NMED in response to the submitted corrective action plan.</p> <p>[NMSA 1978, § 74-6-5.D, Subsections B and C of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]</p>
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CLOSURE PLAN

Part A. Applicable to all parts

(No specific Closure Conditions Applicable to All Parts)

Part B. Applicable to the WWTF and discharges of treated wastewater to the Rio Puerco of the West

#	<i>Permanent Facility Closure Conditions</i>
42.	<p>In the event that the WWTF or components of the WWTF are permanently closed, upon ceasing discharge, the permittee shall complete closure measures as follows:</p> <p>Within <u>180 days</u> of permanently ceasing discharge to the WWTF (or any individual component therein), the permittee shall complete the following closure measures:</p> <ul style="list-style-type: none"> a) All lines leading to the system shall be plugged so that a discharge can no longer occur. b) Wastewater shall be drained from the system components and it shall be disposed of in accordance with all local, state, and federal regulations. c) Solids shall be removed from all treatment process units, including; the flow equalization basin, clarifiers, aeration basins, the reserve impoundment, and other units, as applicable. Removed solids shall be contained, transported, and disposed of 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>365 days</u> of ceasing discharging to the WWTF (or any individual component therein), the permittee shall complete the following closure measures:</p> <ul style="list-style-type: none"> a) Remove all lines leading to and from the treatment system, or permanently plug and abandon them in place. b) Remove or demolish the treatment system components, and re-grade the area with suitable fill to blend with surface topography, promote positive drainage and prevent ponding. c) Perforate or remove the reserve impoundment and/or sludge drying bed liners; fill the structures with suitable fill; and re-grade the site(s) to blend with surface topography, promote positive drainage and prevent ponding. <p>The permittee shall continue ground water monitoring until the requirements of this condition have been met and ground water monitoring confirms for a minimum of two years of consecutive ground water sampling events that the standards of Section</p>

	<p>20.6.2.3103 NMAC are not exceeded and toxic pollutants are not present in ground water.</p> <p>If monitoring results show that a ground water quality standard in Section 20.6.2.3103 NMAC is exceeded; the total nitrogen concentration in ground water is greater than 10 mg/L; or a toxic pollutant (defined in Subsection WW of 20.6.2.7 NMAC) is present in ground water, the permittee shall implement the contingency plan required by this Discharge Permit.</p> <p>Following notification from NMED that post-closure monitoring may cease, the permittee shall plug and abandon the monitoring well(s) in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.1, March 2011.</p> <p>When all closure and post-closure requirements have been met, the permittee may submit a written request for termination of the Discharge Permit to NMED.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC, 40 CFR Part 503]</p>
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Part C. Applicable to transfers of Class 1B reclaimed wastewater to other facilities with separate NMED issued ground water Discharge Permits and for temporary uses that do not require a Discharge Permit

#	<i>Permanent Facility Closure Conditions</i>
43.	<p>In the event that the transfer of reclaimed wastewater from the WWTF for reuse is proposed to permanently cease, the permittee shall perform the following closure measures:</p> <p>Within <u>90 days</u> of ceasing the transfer of reclaimed wastewater from the WWTF:</p> <ul style="list-style-type: none"> a) Plug or remove the lines leading to the reuse areas so that a discharge can no longer occur. b) Drain reclaimed wastewater from the system components and dispose of it in accordance with all local, state, and federal regulations. <p>When all closure and post-closure requirements have been met, the permittee may submit a request for removal these elements from this Discharge Permit to NMED.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC, 40 CFR Part 503]</p>

GENERAL TERMS AND CONDITIONS

#	Terms and Conditions
44.	<p>RECORD KEEPING - The permittee shall maintain a written record of the following information:</p> <ul style="list-style-type: none"> a) Information and data used to complete the application for this Discharge Permit. b) Records of any releases (commonly known as "spills") not authorized under this Discharge Permit and reports submitted pursuant to 20.6.2.1203 NMAC. c) Records of the operation, maintenance, and repair of all facilities/equipment used to treat, store or dispose of wastewater. d) 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. e) Copies of monitoring reports completed and/or submitted to NMED pursuant to this Discharge Permit. f) The volume of wastewater or other wastes discharged pursuant to this Discharge Permit. g) Ground water quality and wastewater quality data collected pursuant to this Discharge Permit. h) Copies of construction records (well log) for all ground water monitoring wells required to be sampled pursuant to this Discharge Permit. i) Records of the maintenance, repair, replacement or calibration of any monitoring equipment or flow measurement devices required by this Discharge Permit. j) Data and information related to field measurements, sampling, and analysis conducted pursuant to this Discharge Permit. The following information shall be recorded and shall be made available to NMED upon request: <ul style="list-style-type: none"> i) The dates, location and times of sampling or field measurements; ii) The name and job title of the individuals who performed each sample collection or field measurement; iii) The sample analysis date of each sample; iv) The name and address of the laboratory, and the name of the signatory authority for the laboratory analysis; v) The analytical technique or method used to analyze each sample or collect each field measurement; vi) The results of each analysis or field measurement, including raw data; vii) The results of any split, spiked, duplicate or repeat sample; and viii) 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 written record shall be maintained by the permittee at a location accessible during a facility inspection by NMED for a period of at least five years from the date of application, report, collection or measurement and shall be made available to the department upon request.</p>

	[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]
45.	<p>INSPECTION and ENTRY – The permittee shall allow inspection by NMED of the facility and its operations which 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 are located any records required to be maintained by regulations of the federal government or the WQCC.</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>Nothing in this Discharge Permit shall be construed as limiting in any way the inspection and entry authority of NMED under the WQA, the WQCC Regulations, or any other 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>
46.	<p>DUTY to PROVIDE INFORMATION - The permittee shall, upon NMED's request, allow NMED's inspection/duplication of records required by this Discharge Permit and/or furnish to NMED copies of such records.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC 20.6.2.3107.D NMAC, NMSA 1978, §§ 74-6-9.B and 74-6-9.E]</p>
47.	<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 approval (which may require modification of this Discharge Permit) by NMED prior to implementing such changes.</p> <p>[NMSA 1978, § 74-6-5.D, Subsection E of 20.6.2.3109 NMAC, Subsection C of 20.6.2.3107 NMAC]</p>
48.	<p>PLANS and SPECIFICATIONS – In the event the permittee is proposing 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 to NMED for the proposed system or process unit prior to the commencement of construction.</p> <p>In the event the permittee implements changes to the wastewater system authorized by this</p>