

GROUND WATER DISCHARGE PERMIT RENEWAL AND MODIFICATION
City of Alamogordo Wastewater Treatment Plant, DP-220

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this Discharge Permit Renewal and Modification (Discharge Permit), DP-220, to the City of Alamogordo (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 Alamogordo Wastewater Treatment Plant (facility) into ground and surface water, so as to protect ground and surface water for present and potential future use as domestic and agricultural water supply and other uses and protect public health. In issuing this Discharge Permit, NMED has determined that the requirements of Subsection C of 20.6.2.3109 NMAC have been met.

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

Up to 5,000,000 gallons per day of domestic wastewater from the City of Alamogordo is treated by a mechanical treatment plant and reclaimed wastewater is discharged to various locations within the city, including roadway medians, city parks, a municipal golf course, native grassland and a surplus discharge area. The modification consists of the inclusion of the synthetically lined Griggs lagoon for storage of reclaimed wastewater. The discharge contains water contaminants or toxic pollutants that may be elevated above the standards of 20.6.2.3103 NMAC. The treatment facility is located at 3290 Airport Road, Alamogordo in Section 15, T17S, R09E, Otero County. The discharge sites are located in Sections 1, 25, 26, and 35, T16S, R09E; Sections 8, 17, 18, 19, 20, 29, and 31, T16S, R10E; Sections 12, 14, 16, and 23, T17S, R09E; and Section 10, T17S, R10E, Otero County. Ground water beneath the facility and discharge sites is at a depth ranging from 20-200 feet and has a total dissolved solids concentration of approximately 1,600-20,000 milligrams per liter.

The original Discharge Permit was issued on May 24, 1982 and subsequently renewed and/or modified on December 20, 1985, March 27, 1987, June 26, 1987, December 23, 1991, March 10, 1995, April 21, 2000, and January 31, 2007. The permittee's application consists of the materials submitted by Severn Trent on behalf of the City of Alamogordo dated December 20, 2007 and additional information received on May 19, 2008 and June 30, 2008. The discharge shall be managed in accordance with all conditions and requirements of this Discharge Permit.

Pursuant to Section 20.6.2.3109 NMAC, NMED reserves the right to require a Discharge Permit Modification in the event NMED determines that the requirements of 20.6.2 NMAC are being or may be violated or the standards of Section 20.6.2.3103 NMAC are being or may be violated. This may include a determination that structural controls and/or management practices approved under this Discharge Permit are not protective of ground water quality, and that more stringent requirements to protect and/or remediate ground water quality may be required by NMED. These requirements may include: lining/relining lagoons; expanding land application areas; changing

waste management practices; expanding monitoring requirements; installing an advanced treatment system; and/or implementing abatement of water pollution.

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

The following abbreviations may be used in this Discharge Permit:

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

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

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

III. CONDITIONS

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

OPERATIONAL PLAN

#	Terms and Conditions
1.	The permittee shall implement the following operational plan to ensure compliance with Title 20, Chapter 6, Parts 1 and 2 NMAC. [20.6.2.3106.C NMAC, 20.6.2.3107 NMAC]
2.	The permittee shall operate in a manner such that standards and requirements of Section 20.6.2.3103 NMAC including human health, other domestic water supply and irrigation standards are not violated. [20.6.2.3103 NMAC]
3.	<p>The permittee is authorized to discharge up to 5,000,000 gallons per day of domestic wastewater. Domestic wastewater from the City of Alamogordo is treated by a mechanical treatment plant, and reclaimed wastewater is discharged to various locations within the city, including:</p> <ul style="list-style-type: none"> • 80 acres of landscaping and turf at Griggs Sports Complex/Hobby Park, located at 3000 N Florida Ave, • 2.94 acres of landscaping at Pecan Strip Drive, located in the median of Pecan Drive between Indian Wells Road and 25th Street, • 1.65 acres of landscaping and turf at University Park, located at 1701 25th St, • 0.69 acres of landscaping at the Senior Center, located at 2201 Puerto Rico Ave, • 5 acres of landscaping at Indian Wells Strip, located in the median of Indian Wells Road between Washington Ave and White Sands Blvd, • 20 acres of landscaping and turf at Alameda Park/Zoo, including the Gift Shop, Zoo and Zookeeper’s Office, and the Alameda Park Gazebo, located at White Sands Blvd between Indian Wells Road and 10th Street, • 50 acres of landscaping and turf at Washington/Oregon Parks, including Circle Drive Park, Family Recreation Center, City Hall, Washington Park, and the Jim Abbott Soccer Field, located between Washington and Oregon Avenues, between Indian Wells Rd and Canyon Road, • 10 acres of landscaping and turf at Sacramento Elementary School and Alamogordo High School, located at 300 Alaska Avenue and 103 Cuba Avenue, • 51.5 acres of landscaping and turf at the Soccerplex/Cemetery including the Immaculate Conception Cemetary, the Monte Vista Cemetary, and the Steinhoff Soccer Complex, located at 1300 E First St, • 6.9 acres of landscaping at Tierra de Sueños, located north of the Municipal Golf Course, • 100 acres of turf at the Municipal Golf Course, located at 2351 Hamilton Rd, • 12 acres of turf at Hooser Ballfield Complex, located at 2111 S Walker Ave, • 300 acres of cropland at the Municipal Airport, located approximately 0.5 miles south of the airport runway, and • 400 acres of native grassland at the Plant Surplus Site, located approximately one mile southwest of the treatment plant. <p>[20.6.2.3106 NMAC, 20.6.2.3109 NMAC]</p>

4.	Reclaimed wastewater discharged from the treatment facility shall not exceed the following limitation: Total Nitrogen: 15 mg/L. [20.6.2.3109 NMAC]																				
5.	<p>Reclaimed wastewater discharged from the treatment facility to the Griggs Sports Complex/Hobby Park, Pecan Strip Drive, University Park, Senior Center, Indian Wells Strip, Alameda Park/Zoo, Washington/Oregon Parks, Sacramento Elementary School and Alamogordo High School, Soccerplex/Cemetery, Tierra de Sueños, Hooser Ballfield Complex, and the Municipal Golf Course shall not exceed the following limitations:</p> <table border="1" data-bbox="261 573 1203 837"> <thead> <tr> <th><u>Test</u></th> <th><u>30-day geometric mean</u></th> <th><u>30-day average</u></th> <th><u>maximum</u></th> </tr> </thead> <tbody> <tr> <td>Fecal coliform bacteria:</td> <td>5 CFU/100 mL</td> <td>N/A</td> <td>23 CFU/100 mL</td> </tr> <tr> <td>BOD₅:</td> <td>N/A</td> <td>10 mg/L</td> <td>15 mg/L</td> </tr> <tr> <td>Turbidity:</td> <td>N/A</td> <td>3 NTU</td> <td>5 NTU</td> </tr> <tr> <td>TRC:</td> <td>N/A</td> <td>Monitor Only</td> <td>Monitor Only</td> </tr> </tbody> </table> <p>[20.6.2.3109 NMAC]</p>	<u>Test</u>	<u>30-day geometric mean</u>	<u>30-day average</u>	<u>maximum</u>	Fecal coliform bacteria:	5 CFU/100 mL	N/A	23 CFU/100 mL	BOD ₅ :	N/A	10 mg/L	15 mg/L	Turbidity:	N/A	3 NTU	5 NTU	TRC:	N/A	Monitor Only	Monitor Only
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6.	<p>Reclaimed wastewater discharged from the treatment facility to the Municipal Airport shall not exceed the following limitations:</p> <table border="1" data-bbox="261 1058 1203 1323"> <thead> <tr> <th><u>Test</u></th> <th><u>30-day geometric mean</u></th> <th><u>30-day average</u></th> <th><u>maximum</u></th> </tr> </thead> <tbody> <tr> <td>Fecal coliform bacteria:</td> <td>100 CFU/100 mL</td> <td>N/A</td> <td>200 CFU/100 mL</td> </tr> <tr> <td>BOD₅:</td> <td>N/A</td> <td>30 mg/L</td> <td>45 mg/L</td> </tr> <tr> <td>TSS:</td> <td>N/A</td> <td>30 mg/L</td> <td>45 mg/L</td> </tr> <tr> <td>TRC:</td> <td>N/A</td> <td>Monitor Only</td> <td>Monitor Only</td> </tr> </tbody> </table> <p>[20.6.2.3109 NMAC]</p>	<u>Test</u>	<u>30-day geometric mean</u>	<u>30-day average</u>	<u>maximum</u>	Fecal coliform bacteria:	100 CFU/100 mL	N/A	200 CFU/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
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7.	<p>Reclaimed wastewater discharged from the treatment facility to the Plant Surplus Site shall not exceed the following limitations:</p> <table border="1" data-bbox="261 1541 1203 1806"> <thead> <tr> <th><u>Test</u></th> <th><u>30-day geometric mean</u></th> <th><u>30-day average</u></th> <th><u>maximum</u></th> </tr> </thead> <tbody> <tr> <td>Fecal coliform bacteria:</td> <td>1000 CFU/100 mL</td> <td>N/A</td> <td>5000 CFU/100 mL</td> </tr> <tr> <td>BOD₅:</td> <td>N/A</td> <td>30 mg/L</td> <td>45 mg/L</td> </tr> <tr> <td>TSS:</td> <td>N/A</td> <td>75 mg/L</td> <td>90 mg/L</td> </tr> <tr> <td>TRC:</td> <td>N/A</td> <td>Monitor Only</td> <td>Monitor Only</td> </tr> </tbody> </table> <p>[20.6.2.3109 NMAC]</p>	<u>Test</u>	<u>30-day geometric mean</u>	<u>30-day average</u>	<u>maximum</u>	Fecal coliform bacteria:	1000 CFU/100 mL	N/A	5000 CFU/100 mL	BOD ₅ :	N/A	30 mg/L	45 mg/L	TSS:	N/A	75 mg/L	90 mg/L	TRC:	N/A	Monitor Only	Monitor Only
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<p>8.</p>	<p>The permittee shall apply reclaimed wastewater to:</p> <ul style="list-style-type: none"> • 80 acres of landscaping and turf at Griggs Sports Complex/Hobby Park, located at 3000 N Florida Ave, • 2.94 acres of landscaping at Pecan Strip Drive, located in the median of Pecan Drive between Indian Wells Road and 25th Street, • 1.65 acres of landscaping and turf at University Park, located at 1701 25th St, • 0.69 acres of landscaping at the Senior Center, located at 2201 Puerto Rico Ave, • 5 acres of landscaping at Indian Wells Strip, located in the median of Indian Wells Road between Washington Ave and White Sands Blvd, • 20 acres of landscaping and turf at Alameda Park/Zoo, including the Gift Shop, Zoo and Zookeeper’s Office, and the Alameda Park Gazebo, located at White Sands Blvd between Indian Wells Road and 10th Street, • 50 acres of landscaping and turf at Washington/Oregon Parks, including Circle Drive Park, Family Recreation Center, City Hall, Washington Park, and the Jim Abbott Soccer Field, located between Washington and Oregon Avenues, between Indian Wells Rd and Canyon Road, • 10 acres of landscaping and turf at Sacramento Elementary School and Alamogordo High School, located at 300 Alaska Avenue and 103 Cuba Avenue, • 51.5 acres of landscaping and turf at the Soccerplex/Cemetery including the Immaculate Conception Cemetery, the Monte Vista Cemetery, and the Steinhoff Soccer Complex, located at 1300 E First St, • 6.9 acres of landscaping at Tierra de Sueños, located north of the Municipal Golf Course, • 100 acres of turf at the Municipal Golf Course, located at 2351 Hamilton Rd, • 12 acres of turf at Hooser Ballfield Complex, located at 2111 S Walker Ave, • 300 acres of cropland at the Municipal Airport, located approximately 0.5 miles south of the airport runway, and • 400 acres of native grassland at the Plant Surplus Site, located approximately one mile southwest of the treatment plant. <p>The amount of total nitrogen applied in the wastewater shall not exceed 200 pounds per acre per year. Nitrogen content shall not be adjusted to account for volatilization or mineralization processes. Wastewater shall be distributed evenly over the entire area of application. Excessive ponding shall be prevented. [20.6.2.3109 NMAC]</p>
<p>9.</p>	<p>Within 30 days of the effective date of this Discharge Permit (by date), the permittee shall submit record drawings of the Griggs lagoon, lagoon liner, and final lagoon capacity calculations. A licensed New Mexico professional engineer shall certify construction plans and specifications, supporting design calculations, and record drawings of the lagoon and liner. [20.6.2.3109 NMAC]</p>
<p>10.</p>	<p>The permittee shall maintain fences around the wastewater treatment facility to control public access. The fences shall be constructed in a manner which prevents access by the general public and animals such as dogs (e.g., chain link, field fencing or locking lids) and shall be maintained throughout the term of this Discharge Permit. [20.6.2.3109 NMAC]</p>

11.	The permittee shall maintain signs at the facility entrance and other areas where public contact is possible indicating that the water is not potable. All signs shall remain visible and legible for the term of this Discharge Permit. [20.6.2.3109 NMAC]
12.	The permittee shall maintain signs in English and Spanish at above ground areas receiving reclaimed wastewater. The signs shall be posted at locations where public access may occur and shall state: NOTICE: THIS AREA IS IRRIGATED WITH RECLAIMED WASTEWATER - DO NOT DRINK. AVISO: ESTA ÁREA ESTÁ REGADA CON AGUAS NEGRAS RECOBRADAS - NO TOMAR. Alternate wording and/or graphics may be submitted for NMED approval. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]
13.	The permittee shall remove solids from the treatment plant as needed, depending on process control testing such as: the 30-minute settleometer test, the Mixed Liquor Suspended Solids concentration or the Mean Cell Residence Time. The solids shall be contained, transported, and disposed of in accordance with all local, state, and federal (40 CFR Part 503) regulations. Records of solids disposal shall be submitted to NMED in the quarterly monitoring reports. [20.6.2.3109 NMAC]
14.	<p>The lagoon liners shall be maintained in such a manner as to avoid conditions which could affect the structural integrity of the lagoons and/or lagoon liners. Such conditions include, but are not limited to:</p> <ul style="list-style-type: none"> • Erosion damage; • Animal activity/damage; • The presence of vegetation, such as; aquatic plants, weeds, woody shrubs or trees growing within five feet of the lagoon edge or within the lagoon itself; • Evidence of seepage; • Evidence of berm subsidence; and/or • The presence of large pieces or large quantities of debris in the lagoon. <p>The permittee shall visually inspect the lagoons and surrounding berms on a monthly basis to ensure proper maintenance. Vegetation growing around the lagoons shall be routinely controlled by mechanical removal in a manner that is protective of the lagoon liner. Any evidence of damage to the lagoon berm or liner shall be reported to NMED immediately upon discovery. [20.6.2.3107 NMAC]</p>
15.	The permittee shall maintain a minimum of two feet of freeboard between the liquid level in the lagoons and the top elevation of the lagoon liners at all times. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]
16.	The permittee shall utilize operators, certified by the State of New Mexico at the appropriate level, to operate the wastewater collection, treatment and disposal systems. All operations and maintenance of all or any part of the wastewater system shall be performed by, or under the direct supervision of, a certified operator. [20.7.4 NMAC]

17.	<p>The permittee shall meet the following general requirements for above ground use of reclaimed domestic wastewater:</p> <ul style="list-style-type: none">a) The permittee shall maintain signs in English and Spanish at above ground areas receiving reclaimed wastewater. All signs shall remain visible and legible for the term of this Discharge Permit.b) The reclaimed wastewater systems shall have no direct or indirect cross connections with potable water systems pursuant to the latest revision of the New Mexico Plumbing and Mechanical Code.c) Above ground use of reclaimed wastewater shall not result in excessive standing or pooling of wastewater, and shall be applied at the appropriate consumptive water use rate. Irrigation shall not be conducted at times when the receiving area is saturated or frozen.d) The discharge of reclaimed wastewater shall be confined to the area designated and approved for receiving the wastewater.e) All water supply wells within 200 feet of a wetted irrigation area shall have adequate well head construction and irrigation shall be managed to ensure protection of ground water quality.f) All existing and accessible portions of the reclaimed wastewater system shall be colored purple or clearly labeled as being part of a reclaimed wastewater distribution system. All piping, valves and outlets that are installed during the term of this Discharge Permit shall be color-coded in purple pursuant to the latest revision of the New Mexico Plumbing and Mechanical Code to differentiate piping or fixtures used to convey reclaimed wastewater from piping or fixtures used for potable or other water. All valves, outlets, and sprinkler heads used in reclaimed wastewater systems shall be of a type that can only be operated by authorized personnel. <p>[20.6.2.3109 NMAC]</p>
18.	<p>The permittee shall meet the following setbacks, access restrictions and equipment requirements for spray irrigation using Class 2 reclaimed domestic wastewater at the Municipal Airport:</p> <ul style="list-style-type: none">a) A minimum 100-foot set-back shall be maintained between any dwellings or occupied establishments and the edge of any area receiving reclaimed wastewater.b) Irrigation shall be postponed at times when windy conditions may result in drift of reclaimed wastewater outside the designated area of application.c) Access to the irrigated area shall be restricted by perimeter fencing using 4-strand barbed wire and locking gate or other NMED approved access controls.d) The public shall be excluded from entering the area during times when the reclaimed wastewater is being applied.e) The spray irrigation system shall utilize only low trajectory spray nozzles. <p>[20.6.2.3109 NMAC]</p>
19.	<p>The permittee shall meet the following setbacks and access restrictions for flood irrigation using Class 3 reclaimed domestic wastewater at the Plant Surplus Area:</p> <ul style="list-style-type: none">a) Whenever reclaimed wastewater is used in areas with public access it shall be applied at times and in a manner that minimizes public contact.

	<p>b) Access to the irrigated area shall be restricted by perimeter fencing using 4-strand barbed wire and locking gate or other NMED approved access controls.</p> <p>c) A minimum 100-foot set-back shall be maintained between any dwellings or occupied establishments and the edge of any area receiving reclaimed wastewater.</p> <p>[20.6.2.3109 NMAC]</p>
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MONITORING, REPORTING, AND OTHER REQUIREMENTS

#	Terms and Conditions
20.	The permittee shall conduct the following monitoring, reporting, and other requirements listed below. [20.6.2.3107 NMAC]
21.	<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> <p>a) American Public Health Association, Standard Methods for the Examination of Water and Wastewater (18th, 19th or current);</p> <p>b) U.S. Environmental Protection Agency, Methods for Chemical Analysis of Water and Waste;</p> <p>c) U.S. Geological Survey, Techniques for Water Resources Investigations of the U.S. Geological Survey;</p> <p>d) American Society for Testing and Materials, Annual Book of ASTM Standards, Part 31.Water;</p> <p>e) U.S. Geological Survey, et al., National Handbook of Recommended Methods for Water Data Acquisition; or</p> <p>f) Methods of Soil Analysis: Part 1. Physical and Mineralogical Methods and Part 2. Chemical and Microbiological Properties, American Society of Agronomy.</p> <p>[20.6.2.3107.B NMAC]</p>
22.	<p>The permittee shall submit quarterly monitoring reports to NMED for the most recently completed quarterly period by the 1st of February, May, August and November each year.</p> <p>Quarterly monitoring shall be performed during the following periods:</p> <ul style="list-style-type: none"> • January 1st through March 31st (first quarter) – due by May 1st; • April 1st through June 30th (second quarter) – due by August 1st; • July 1st through September 30th (third quarter) – due by November 1st; and • October 1st through December 31st (fourth quarter) – due by February 1st. <p>Monitoring requirements detailed in this Discharge Permit are summarized on the sheet titled <i>Summary of Required Actions, Monitoring and Reporting</i>. [20.6.2.3107 NMAC]</p>
23.	The permittee shall measure the totalized, daily average and peak volume of wastewater discharged to the treatment facility each month using a primary measuring device equipped with head sensing, totalizing and chart recording/data logging mechanisms. The totalized, daily average and peak discharge volumes for each month shall be submitted to NMED in

	<p>the quarterly monitoring reports. The flow meter shall be calibrated against the primary measuring device to within +/- 10% of actual flow and kept operational at all times. [20.6.2.3107 NMAC]</p>
24.	<p>The permittee shall measure and record all discharges from the wastewater treatment system to Lavelle pond, to the Municipal Golf Course, to Hooser Park, to the three airport pivots, and to the Plant Surplus Site using seven totalizing flow meters on a monthly basis. The permittee shall maintain a daily log showing the location of each discharge, totalizing meter readings immediately prior to and after each discharge, and the calculated total volume of each discharge. A summary of the log entries and the calculated monthly discharge volumes for each location in the land application area shall be submitted to NMED in the quarterly monitoring reports. The volumes discharged to each location each month, calculated based upon the log, shall be used to calculate nitrogen loading on the LADS. The flow meter shall be calibrated to within +/- 10% of actual flow and kept operational at all times. [20.6.2.3107.A(1) NMAC, 20.6.2.3109.C(3) NMAC]</p>
25.	<p>Once prior to the expiration date of this Discharge Permit, NMED shall have the option to require the permittee to temporarily remove the dedicated pump from each monitoring well to provide access for a complete well inspection by NMED personnel. NMED shall establish the inspection date and provide at least 60 days notice to the permittee by certified mail. Dedicated pumps shall be removed at least 48 hours prior to NMED inspection to allow adequate settling time for sediment agitated from pump removal. [20.6.2.3107 NMAC]</p>
26.	<p>Within 120 days of the effective date of this Discharge Permit (by DATE), the permittee shall survey all wells approved by NMED for Discharge Permit monitoring purposes to a U.S. Geological Survey (USGS) or other permanent benchmark. Survey data shall include northing, easting and elevation to the nearest hundredth of a foot or in accordance with the "Minimum Standards for Surveying in New Mexico" (12.8.2 NMAC). A survey elevation shall be established at the top-of-casing, with a permanent marking indicating the point of survey. The survey shall be completed and certified by a licensed New Mexico professional surveyor. Depth-to-water shall be measured to the nearest hundredth of a foot in all surveyed wells, and the data shall be used to develop a map showing the location of all monitoring wells and the direction and gradient of ground water flow at the facility. The data and map of ground water flow direction at the facility shall be submitted to NMED within 30 days of survey completion. [20.6.2.3107 NMAC]</p>
27.	<p>The permittee shall perform quarterly ground water sampling in six monitoring wells and analyze the samples for NO₃-N, TKN, Cl, and TDS. The permittee shall sample:</p> <ul style="list-style-type: none"> • MW-3, intended to be located hydrologically downgradient of the Airport Pivots, located between the Airport Pivots; • MW-4, located near intersection of Walker Ave and Airport Ave, north of the airport runway; • MW-8, intended to be located hydrologically downgradient of the Plant Surplus Site, located southwest of Plant Surplus Site;

	<ul style="list-style-type: none"> • MW-10, intended to be located hydrologically downgradient of the Municipal Golf Course, located near the southwest corner of the golf course; • MW-11, intended to be located hydrologically downgradient of the cemetery and ballfields, located west of the southwest corner of Steinhoff Soccer Complex; and • MW-12, intended to be located hydrologically downgradient of the Alamogordo High School and Sacramento Schools, located near Alamogordo High School. <p>Ground water sample collection, preservation, transport and analysis shall be performed according to the following procedure:</p> <ol style="list-style-type: none"> a) measure the depth-to-ground water from the top of well casing to the nearest hundredth of a foot; b) purge three well volumes of water from the well prior to sample collection; c) obtain samples from the well for analysis; d) properly prepare, preserve and transport samples; and e) analyze samples in accordance with the methods authorized in this Discharge Permit. <p>Depth-to-water measurements, analytical results, including the laboratory QA/QC summary report, and a facility layout map showing the location and number of each well shall be submitted to NMED in the quarterly monitoring reports. [20.6.2.3107 NMAC]</p>
28.	<p>The permittee shall sample treated wastewater prior to the Plant Storage Pond on a quarterly basis and analyze the samples for TKN, NO₃-N, TDS and Cl. Analytical results shall be submitted to NMED in the quarterly monitoring reports. [20.6.2.3107 NMAC]</p>
29.	<p>The permittee shall sample treated wastewater prior to the Plant Storage Pond on an annual basis by collecting a 24-hour flow weighted composite sample and analyze the composite sample for all contaminants listed under Section 20.6.2.3103 NMAC. Analytical results shall be submitted to NMED in the monitoring reports due by August 1 each year. [20.6.2.3107 NMAC]</p>
30.	<p>The permittee shall perform the following analyses on reclaimed wastewater samples collected prior to the Plant Storage Pond using the sampling method and frequency indicated:</p> <ul style="list-style-type: none"> • Fecal coliform bacteria: grab sample at peak daily flow three times per week; • BOD₅: six-hour composite sample three times per week; • TSS: six-hour composite sample three times per week; • The permittee shall continuously monitor reclaimed wastewater for turbidity after the final treatment process during discharge. The permittee shall record the average and maximum turbidity values for each calendar month. • The permittee shall record TRC concentrations whenever fecal coliform samples are collected. <p>Analytical results, monthly average and maximum turbidity values, and a copy of the log of TRC concentrations shall be submitted to NMED in the quarterly monitoring reports. [20.6.2.3107 NMAC]</p>

31.	The permittee shall complete land application data sheets (LADS) quarterly that document the amount of nitrogen applied to the land application area. The LADS (copy enclosed) shall reflect the nitrogen concentration from the most recent wastewater analysis and the measured discharge volumes for each month. The LADS or a statement that no land application occurred shall be submitted to NMED in the quarterly monitoring reports. [20.6.2.3107 NMAC]
32.	The permittee shall keep a log of all additional fertilizer applied to each field in the land application areas. The log shall contain the date of fertilizer application, the type and nutrient concentration of the fertilizer, and the amount of fertilizer applied to each field. A summary of the log entries shall be submitted to NMED in the quarterly monitoring reports. [20.6.2.3107 NMAC]

CONTINGENCY PLAN

#	Terms and Conditions
33.	In the event that monitoring indicates ground water standards are violated during the term of this Discharge Permit, upon closure of the facility or during post-closure monitoring, the permittee shall collect a confirmatory sample from the monitoring well within 15 days to confirm the initial sampling results. Within 15 days of confirmation of ground water contamination, the permittee shall submit to NMED a corrective action plan that proposes measures to mitigate damage from the discharge including, at a minimum, source control measures and an implementation schedule. The permittee may be required to abate water pollution pursuant to Sections 20.6.2.4000 through 20.6.2.4115 NMAC, if the corrective action plan will not result in compliance with the standards and requirements set forth in Section 20.6.2.4103 NMAC within 180 days of confirmation of ground water contamination. [20.6.2.1203 NMAC, 20.6.2.4105.A(8) NMAC]
34.	In the event of a spill or release that is not authorized under this Discharge Permit, the permittee shall initiate the notifications and corrective actions as required in Section 20.6.2.1203 NMAC. The permittee shall take immediate corrective action to contain and remove or mitigate the damage caused by the discharge. Within 24 hours after discovery of the discharge, the permittee shall verbally notify NMED and provide the information required by Paragraph (1) of Subsection A of 20.6.2.1203 NMAC. Within 7 days of discovering the discharge, the permittee shall submit a written report to NMED verifying the oral notification and providing any additional information or changes. The permittee shall submit a corrective action report within 15 days after discovery of the discharge. [20.6.2.1203 NMAC]
35.	In the event that analytical results of a quarterly treated wastewater sample exceed the total nitrogen limitation set in this Discharge Permit, the permittee shall analyze another sample within 15 days to confirm the initial results. Upon confirmation that the limitation is being exceeded, the permittee shall enact the following contingency plan: a) NMED shall be notified immediately that the contingency plan is being enacted. b) Wastewater sampling and analysis shall be done on a monthly basis.

	<p>c) The permittee shall examine the operation and maintenance log, required under the Record Keeping section of this permit, for improper operational procedures. The permittee shall also conduct a physical inspection of the treatment system to detect abnormalities. Any abnormalities discovered shall be corrected.</p> <p>d) If analytical results from wastewater sampling continue to exceed the limitation, the permittee shall submit a corrective action plan for NMED approval to modify operational procedures and/or upgrade the treatment process to achieve the effluent limit. The plan shall be submitted within 90 days of the original confirmation of exceedance of the effluent limitation. The corrective action plan shall be implemented immediately upon NMED approval.</p> <p>When analytical results from three consecutive months of wastewater sampling do not exceed the limitation, the permittee shall return to quarterly monitoring. [20.6.2.3107.A(10) NMAC]</p>
36.	<p>In the event that analytical results of a reclaimed domestic wastewater sample exceed any of the maximum limitations for BOD₅, turbidity, or fecal coliform bacteria set by Condition 5 of this Discharge Permit, the permittee shall re-sample within 24 hours of becoming aware of the exceedance to confirm the initial results. If the exceedance of any of the maximum limitations is confirmed, or if any of the 30-day average limitations is exceeded, the permittee shall enact the following contingency plan:</p> <p>a) NMED shall be notified immediately that the contingency plan is being enacted.</p> <p>b) The permittee shall immediately cease discharging reclaimed domestic wastewater to Lavelle Pond, Hooser Ballfield Complex, and the Municipal Golf Course. The permittee may continue discharging to the Municipal Airport and the Plant Surplus Site.</p> <p>c) The permittee shall examine the operation and maintenance log, required under the Record Keeping section of this Discharge Permit, for improper operational procedures. The permittee shall also conduct a physical inspection of the treatment system to detect abnormalities. Any abnormalities discovered shall be corrected.</p> <p>When the analytical results from samples of reclaimed domestic wastewater, sampled as required by this Discharge Permit, no longer exceed any of the maximum limitations set by Condition 5 of this Discharge Permit, the permittee may resume discharging reclaimed wastewater to Lavelle Pond, Hooser Ballfield Complex, and the Municipal Golf Course.</p> <p>If a facility is required to enact the contingency plan more than two times in a calendar year, the permittee shall submit a corrective action plan for NMED approval to modify operational procedures and/or upgrade the treatment process to achieve consistent compliance with the maximum and 30-day average limitations. The plan shall be submitted within 60 days of the second occurrence and shall be implemented immediately upon NMED approval. Additional sampling of stored reclaimed wastewater prior to discharge to the land application area may be required as part of the corrective action plan. [20.6.2.3107.A(10) NMAC]</p>
37.	<p>In the event that analytical results of a reclaimed domestic wastewater sample exceed any of the maximum limitations for BOD₅, TSS, or fecal coliform bacteria set by Condition 6 of this Discharge Permit, the permittee shall re-sample within 24 hours of becoming aware</p>

	<p>of the exceedance to confirm the initial results. If the exceedance of any of the maximum limitations is confirmed, or if any of the 30-day average limitations is exceeded, the permittee shall enact the following contingency plan:</p> <ul style="list-style-type: none"> a) NMED shall be notified immediately that the contingency plan is being enacted. b) The permittee shall immediately cease discharging reclaimed domestic wastewater to Lavelle Pond, Hooser Ballfield Complex, the Municipal Golf Course, and the Municipal Airport. The permittee may continue discharging to the Plant Surplus Site. c) The permittee shall examine the operation and maintenance log, required under the Record Keeping section of this Discharge Permit, for improper operational procedures. The permittee shall also conduct a physical inspection of the treatment system to detect abnormalities. Any abnormalities discovered shall be corrected. <p>When the analytical results from samples of reclaimed domestic wastewater, sampled as required by this Discharge Permit, no longer exceed any of the maximum limitations set by Condition 6 of this Discharge Permit, the permittee may resume discharging reclaimed wastewater to the Municipal Airport.</p> <p>If a facility is required to enact the contingency plan more than two times in a calendar year, the permittee shall submit a corrective action plan for NMED approval to modify operational procedures and/or upgrade the treatment process to achieve consistent compliance with the maximum and 30-day average limitations. The plan shall be submitted within 60 days of the second occurrence and shall be implemented immediately upon NMED approval. Additional sampling of stored reclaimed wastewater prior to discharge to the land application area may be required as part of the corrective action plan. [20.6.2.3107.A(10) NMAC]</p>
38.	<p>In the event that information available to NMED indicates that a well(s) is not appropriately constructed to effectively monitor ground water quality, contains insufficient water to allow the collection of representative ground water samples, or is not completed in a manner that is protective of ground water quality, the permittee shall install a replacement well(s) within 90 days of notification from NMED. Replacement well location(s) shall be approved by NMED prior to installation and completed in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008. Construction and lithologic logs shall be submitted to NMED within 30 days of well completion.</p> <p>Upon completion of the replacement monitoring well(s), the monitoring well(s) requiring replacement shall be properly plugged and abandoned. The well(s) shall be plugged and abandoned in accordance with the abandonment details in the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008, and any applicable local, state, and federal regulations. Documentation describing the plugging and abandonment procedures, including photographic documentation, shall be submitted to NMED within 30 days of completed well abandonment. [20.6.2.3107 NMAC]</p>

39.	In the event that ground water flow information obtained pursuant to this Discharge Permit indicates that a monitoring well(s) was not installed hydrologically downgradient of the intended discharge location(s), the permittee shall install a replacement well(s) within 90 days of notification from NMED. The well location(s) shall be approved by NMED prior to installation and completed in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i> , Revision 1.0, July 2008. Construction and lithologic logs shall be submitted to NMED within 30 days of well completion. [20.6.2.3107 NMAC]
40.	In the event that LADS show that the amount of nitrogen in wastewater applied exceeds 200 pounds per acre per year, the permittee shall submit a corrective action plan for the reduction of nitrogen loading to the land application area. The plan shall be submitted to NMED for approval within 90 days of the end of the monitoring period in which the exceedance occurred. The corrective action plan shall be implemented within 30 days of NMED approval. [20.6.2.3107.A(10) NMAC]
41.	In the event NMED or the permittee identifies any other failures of the Discharge Permit or system not specifically noted herein, NMED may require the permittee to develop for NMED approval contingency plans and schedules to cope with the failures. [20.6.2.3107.A(10) NMAC]

CLOSURE PLAN

#	Terms and Conditions
42.	<p>Upon closure of the facility, the permittee shall perform the following closure measures:</p> <ul style="list-style-type: none"> a) Remove or plug all lines leading to the treatment system and land application areas so that a discharge can no longer occur. b) Drain and/or evaporate all liquids from all treatment units and dispose of all sludge in accordance with all local, state, and federal (40 CFR Part 503) regulations. c) Remove or demolish all tanks and re-grade area with clean fill to blend with surface topography and prevent ponding. d) Perforate or remove the holding lagoon liner(s) and re-grade the lagoons with clean fill to blend with surface topography and prevent ponding. e) Continue ground water monitoring as required by this Discharge Permit for two years after closure to confirm the absence of ground water contamination. If monitoring results show that the ground water standards in Section 20.6.2.3103 NMAC are being violated, the permittee shall implement the contingency plan required by this Discharge Permit. f) Following notification from NMED that post-closure monitoring may cease, the permittee shall plug and abandon the monitoring well(s) in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008. <p>When all post-closure requirements have been met, the permittee may request to terminate the Discharge Permit. [20.6.2.3107.A(11) NMAC]</p>

GENERAL TERMS AND CONDITIONS

#	Terms and Conditions
43.	<p>RECORD KEEPING - The permittee shall maintain at its facility a written record of all data and information related to field measurements, sampling, and analysis conducted pursuant to this Discharge Permit. The following information shall be recorded and shall be made available to NMED upon request:</p> <ul style="list-style-type: none"> a) The dates, exact place and times of sampling or field measurements; b) The name and job title of the individuals who performed each sample collection or field measurement; c) The date of the analysis of each sample; d) The name and address of the laboratory and the name and job title of the person that performed the analysis of each sample; e) The analytical technique or method used to analyze each sample or take each field measurement; f) The results of each analysis or field measurement, including raw data; g) The results of any split sampling, spikes or repeat sampling; and h) A description of the quality assurance and quality control procedures used. <p>[20.6.2.3107.A NMAC]</p>
44.	<p>RECORD KEEPING - The permittee shall maintain a written record of any spills, seeps, and/or leaks of effluent, and of leachate and/or process fluids not authorized by this Discharge Permit. [20.6.2.3107.A NMAC]</p>
45.	<p>RECORD KEEPING - The permittee shall maintain a written record of the operation, maintenance, and repair of all facilities/equipment used to treat, store or dispose of wastewater; to measure flow rates, to monitor water quality, or to collect other data required by this Discharge Permit. This record shall include repair, replacement or calibration of any monitoring equipment and repair or replacement of any equipment used in the permittee's waste or wastewater treatment and disposal system.</p> <p>[20.6.2.3107.A NMAC]</p>
46.	<p>RECORD KEEPING - The permittee shall maintain a written record of the amount of wastewater, effluent, leachate or other wastes discharged pursuant to this Discharge Permit.</p> <p>[20.6.2.3107.A NMAC]</p>
47.	<p>RECORD KEEPING - The permittee shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Discharge Permit, and records of all data used to complete the application for this Discharge Permit for a period of at least five years from the date of the sample collection, measurement, report or application. This period may be extended by request of the Secretary at any time. [20.6.2.3107.A NMAC]</p>
48.	<p>INSPECTION and ENTRY - The permittee shall allow the Secretary or an authorized representative, upon the presentation of credentials, to:</p>

	<p>a) Enter at regular business hours or at other reasonable times upon the permittee's premises or other location where records must be kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation.</p> <p>b) Inspect and copy, during regular business hours or at other reasonable times, any records required to be kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation.</p> <p>c) Inspect, at regular business hours or at other reasonable times, any facility, equipment (including monitoring and control equipment or treatment works), practices or operations regulated or required under this Discharge Permit, or under any federal or WQCC regulation.</p> <p>d) Sample or monitor, at reasonable times for the purpose of assuring compliance with this Discharge Permit or as otherwise authorized by the WQA, any effluent, water contaminant, or receiving water at any location before or after discharge.</p> <p>[20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA]</p>
49.	<p>INSPECTION and ENTRY - Nothing in this Discharge Permit shall be construed as limiting in any way the inspection and entry authority of NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation.</p> <p>[20.6.2.3107 NMAC, 74-6-9(B) & (E) WQA]</p>
50.	<p>DUTY to PROVIDE INFORMATION - The permittee shall furnish to NMED, within a reasonable time, any documents or other information which it may request to determine whether cause exists for modifying, terminating and/or renewing this Discharge Permit or to determine compliance with this Discharge Permit. The permittee shall also furnish to NMED, upon request, copies of documents required to be kept by this Discharge Permit.</p> <p>[20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA]</p>
51.	<p>SPILLS, LEAKS, and OTHER UNAUTHORIZED DISCHARGES - This Discharge Permit authorizes only those discharges specified herein. Any unauthorized discharges violate Section 20.6.2.3104 NMAC and must be reported to NMED and remediated as required by Section 20.6.2.1203 NMAC. [20.6.2.1203 NMAC]</p>
52.	<p>MODIFICATIONS and/or AMENDMENTS - The permittee shall notify NMED of any changes to the permittee's wastewater treatment and disposal system, including any changes in the wastewater flow rate or the volume of wastewater storage, or of any other changes to operations or processes that would result in any significant change in the discharge of water contaminants. The permittee shall obtain NMED's approval, as a modification to this Discharge Permit pursuant to Subsections E, F, or G of 20.6.2.3109 NMAC, prior to any increase in the quantity discharged, or any increase in the concentration of water contaminants discharged, above those levels approved in this Discharge Permit. [20.6.2.3107.C NMAC]</p>
53.	<p>PLANS and SPECIFICATIONS - The permittee shall file plans and specifications with NMED for the construction of a wastewater system and for proposed changes that will change substantially the quantity or quality of the discharge from the system. The</p>

	<p>permittee shall file plans and specifications prior to the commencement of construction. Changes to the wastewater system having a minor effect on the character of the discharge shall be reported as of January 1 and June 30 of each year to NMED. [20.6.2.1202 NMAC]</p>
54.	<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. [74-6-10 WQA, 74-6-10.1 WQA]</p>
55.	<p>CRIMINAL PENALTIES – Any person who knowingly violates or knowingly causes or allows another person to:</p> <ol style="list-style-type: none"> 1) make any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or required to be maintained under the WQA; 2) falsify, tamper with or render inaccurate any monitoring device, method or record required to be maintained under the WQA; or 3) fail to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation, is subject to felony charges and shall be sentenced in accordance with the provisions of Section 31-18-15 NMSA 1978. [74-6-10.2(A-F) WQA]
56.	<p>COMPLIANCE WITH OTHER LAWS - Nothing in this Discharge Permit shall be construed in any way as relieving the permittee of the obligation to comply with all applicable federal, state, and local laws, regulations, permits or orders. [20.6.2 NMAC]</p>
57.	<p>RIGHT to APPEAL - The permittee may file a petition for review before the WQCC on this Discharge Permit. Such petition shall be in writing to the WQCC within thirty (30) days of the receipt of this Discharge Permit. Unless a timely petition for review is made, the decision of NMED shall be final and not subject to judicial review. [74-6-5(O) WQA]</p>
58.	<p>TRANSFER of DISCHARGE PERMIT - Prior to the transfer of any ownership, control, or possession of this permitted facility or any portion thereof, the permittee shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy</p>

	of this Discharge Permit with the notice. The permittee shall deliver or send by certified mail to NMED a copy of the notification and proof that such notification has been received by the proposed transferee. [20.6.2.3111 NMAC]
59.	TERM - Pursuant to WQA 74-6-5(I) and Subsection H of 20.6.2.3109 NMAC, the term of this Discharge Permit is five years from its effective date. To renew this Discharge Permit, the permittee must submit an application for renewal at least 180 days before the termination date. [20.6.2.3109.H NMAC, 74-6-5(I) WQA]
60.	Payment of permit fees is due at the time of Discharge Permit approval. Permit fees shall be paid in a single payment or shall be paid in equal installments on a yearly basis over the term of the Discharge Permit. Single payments shall be remitted to NMED no later than 30 days after the Discharge Permit effective date. Initial installment payments shall be remitted to NMED no later than 30 days after the Discharge Permit effective date; subsequent installment payments shall be remitted to NMED no later than the anniversary of the Discharge Permit effective date. An approved Discharge Permit shall be suspended or terminated if the facility fails to remit an installment payment by its due date. [20.6.2.3114.F NMAC, 74-6-5(K) WQA]

EFFECTIVE DATE: effective date

EXPIRATION DATE: expiration date

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