NEW MEXICO
ENVIRONMENT DEPARTMENT

Harold Runnels Building, N2050
1190 South St. Francis Drive (87505)
P.O. Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-0187 Fax (505) 827-0160
www.env.nm.gov

SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lt. Governor

BUTCH TONGATE
Cabinet Secretary

J. C. BORREGO
Deputy Secretary

Certified Mail - Return Receipt Requested

September 14, 2017

Tim Glasco,
Utility Manager
Los Alamos Department of Public Utilities
Los Alamos County
1000 Central Suite 130
Los Alamos, NM 87544

Re: Los Alamos County - Los Alamos Wastewater Treatment Facility; Major; Municipal; SIC 4952; NPDES Compliance Evaluation Inspection; NM0020141; August 15, 2017

Dear Mr. Glasco:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

Introduction, treatment scheme, and problems noted during this inspection are discussed in the "Further Explanations" section of the inspection report.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

David Long
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
1445 Ross Avenue
Dallas, Texas 75202-2733

Sarah Holcomb
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Barbara Cooney at (505) 827-0212 or at barbara.cooney@state.nm.us.

Sincerely,

/S/ Sarah Holcomb

Sarah Holcomb
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: David Long, USEPA (6EN-WM) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Nancy Williams, USEPA (6EN-WC) by e-mail
Brent Larsen, USEPA (6WQ-PP) by e-mail
NMED District II, Robert Italiano, Manager, by e-mail

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

Transaction Code	NPDES	yr/mo/day	Inspec. Type	Inspector	Fac Type
1 N 2 5 3	N M 0 0 2 0 1 4 1 11	12 1 7 0 8 1 5 17	18 C	19 S 20	1

Remarks

M A J 0 R M U N I C I P A L L O S A L A M O S C O

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved
67 1 69	70 4	71 N 72	N 73	74 75 M A J O R 80

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*	Entry Time /Date	Permit Effective Date
Los Alamos County Department of Public Utilities – Los Alamos Wastewater Treatment Facility One mile northwest of the intersection at State Road 502 and State Road 4 on the right side of Hwy. At locked gate, call WWTP to open gate. WWTP is approx. 2 miles up the road. Los Alamos, NM 87544 Los Alamos County, New Mexico	11:05 Hours / August 15, 2017	March 1, 2017
	Exit Time/Date 14:25 Hours /August 15, 2017	Permit Expiration Date February 28, 2022

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)	Other Facility Data
Marcos Ocanas Level 4 Operator 5050-662-8269 Jeff Ayers, Plant Manager, 505- 662-8269 Jennifer Baca, Laboratory Analyst, 505- 662-8269	SIC 4952
Name, Address of Responsible Official/Title/Phone and Fax Number Tim Glasco, Utility Manager, 505-662-8833 Los Alamos Department of Public Utilities Utilities Manager Los Alamos County 1000 Central Suite 130 Los Alamos, NM 87544	Contacted Yes [ ] No [X]
	Outfall 002: Latitude: 35° 52'53.35' Longitude: 106° 14'54.34"

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit	S	Flow Measurement	M	Operations & Maintenance	N	CSO/SSO
S	Records/Reports	M	Self-Monitoring Program	S	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
S	Effluent/Receiving Waters	S	Laboratory	N	Storm Water	N	Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

SEE THE FURTHER EXPLANATIONS SECTION FOR DETAILS.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
BARBARA COONEY	NMED/SWQB 505-827-0212 / 505-827-0160	
Signature of Management QA Reviewer SARAH HOLCOMB	Agency/Office/Phone and Fax Numbers NMED/SWQB 505-827-0187- / 505-827-0160	Date

Los Alamos County - Los Alamos Wastewater Treatment Facility	PERMIT NO. **NM0020141**

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED Yes*)

DETAILS: Question does the permittee need to submit a written request for Biomonitoring reduction in frequency?

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE	☒ Y ☐ N ☐ NA
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES	☒ Y ☐ N ☐ NA
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT	☒ Y ☐ N ☐ NA
4. ALL DISCHARGES ARE PERMITTED	☒ Y ☐ N ☐ NA

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED YES*)
DETAILS:

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.	☒ Y ☐ N ☐ NA
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.	☒ S ☐ M ☐ U ☐ NA
a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING	☒ Y ☐ N ☐ NA
b) NAME OF INDIVIDUAL PERFORMING SAMPLING	☒ Y ☐ N ☐ NA
c) ANALYTICAL METHODS AND TECHNIQUES.	☒ Y ☐ N ☐ NA
d) RESULTS OF ANALYSES AND CALIBRATIONS.	☒ Y ☐ N ☐ NA
e) DATES AND TIMES OF ANALYSES.	☒ Y ☐ N ☐ NA
f) NAME OF PERSON(S) PERFORMING ANALYSES.	☒ Y ☐ N ☐ NA
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE.	☒ S ☐ M ☐ U ☐ NA
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.	☒ S ☐ M ☐ U ☐ NA
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.	☒ Y ☐ N ☐ NA

SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED YES)*
DETAILS: The numerous overflow for the reuse system is the reason for the Marginal rating.

1. TREATMENT UNITS PROPERLY OPERATED.	☒ S ☐ M ☐ U ☐ NA
2. TREATMENT UNITS PROPERLY MAINTAINED.	☒ S ☐ M ☐ U ☐ NA
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED.	☒ S ☐ M ☐ U ☐ NA
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.	☐ S ☒ M ☐ U ☐ NA
5. ALL NEEDED TREATMENT UNITS IN SERVICE.	☒ S ☐ M ☐ U ☐ NA
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.	☒ S ☐ M ☐ U ☐ NA
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.	☒ S ☐ M ☐ U ☐ NA
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.	☒ Y ☐ N ☐ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.	☒ Y ☐ N ☐ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.	☒ Y ☐ N ☐ NA

Los Alamos County - Los Alamos Wastewater Treatment Facility	PERMIT NO. **NM0020141**

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR?	☒ Y ☐ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?	☒ Y ☐ N ☐ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?	☒ Y ☐ N ☐ NA
10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?	☐ Y ☒ N ☐ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?	☐ Y ☒ N ☐ NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED Yes).*
DETAILS:
Sampling for Total Recoverable Aluminum was not done for the second quarter 2017, this is the reason for a Marginal rating.

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.	☒ Y ☐ N ☐ NA
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.	☒ Y ☐ N ☐ NA
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
6. SAMPLE COLLECTION PROCEDURES ADEQUATE	☒ Y ☐ N ☐ NA
a) SAMPLES REFRIGERATED DURING COMPOSITING.	☒ Y ☐ N ☐ NA
b) PROPER PRESERVATION TECHNIQUES USED.	☒ Y ☐ N ☐ NA
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.	☒ Y ☐ N ☐ NA
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?	☒ Y ☐ N ☐ NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED NO)*
DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE	☒ Y ☐ N ☐ NA
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.	☒ Y ☐ N ☐ NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.	☒ Y ☐ N ☐ NA
4. CALIBRATION FREQUENCY ADEQUATE. *(DATE OF LAST CALIBRATION* July 2017)	☒ Y ☐ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES.	☒ Y ☐ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.	☒ Y ☐ N ☐ NA
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.	☒ Y ☐ N ☐ NA
6. HEAD MEASURED AT PROPER LOCATION.	☒ Y ☐ N ☐ NA
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.	☒ Y ☐ N ☐ NA

SECTION F – LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED No)*
DETAILS:

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)*	☒ Y ☐ N ☐ NA

Los Alamos County - Los Alamos Wastewater Treatment Facility	PERMIT NO. **NM0020141**

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED ☐ Y ☐ N ☒ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. 10 % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. 10 % OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME Hall Laboratory Bio Aquatic

LAB ADDRESS Albuquerque, NM Texas

PARAMETERS PERFORMED Metals Biomonitoring

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED YES).*

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	None	None	None	None	None	Clear – light green	

RECEIVING WATER OBSERVATIONS
Sanitary Sewer Overflows – A single Effluent exceedances for Total Residual Chlorine (TRC)

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED YES).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☒ S ☐ M ☐ U ☐ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☒ S ☐ M ☐ U ☐ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: Compost (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES *(FURTHER EXPLANATION ATTACHED NO).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED

GRAB COMPOSITE SAMPLE METHOD FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

Introduction

A Compliance Evaluation Inspection (CEI) was conducted at the Los Alamos County - Los Alamos Wastewater Treatment Facility (LAWWTF) formerly known as Los Alamos County Bayo under the NPDES permit, by Ms. Barbara Cooney of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) on August 15, 2017. The inspection was conducted by NMED for the U. S. Environmental Protection Agency (USEPA), Region 6, under the National Pollutant Discharge Elimination System (NPDES) permit program, in accordance with the Federal Clean Water Act. These inspections are conducted under agreement with USEPA and are used by the USEPA to determine compliance with the NPDES permit program.

This facility is a major municipal waste water treatment plant (WWTP) under the Federal Clean Water Act (CWA), section 402 National Pollutant Discharge Elimination system (NPDES) permit program and is assigned NPDES permit number NM0020141. The Standard Industrial Classification Code (SIC) is 4952. The facility discharges to ephemeral Pueblo Canyon water quality segment 20.6.4.98 thence to Los Alamos Canyon where it enters San Ildefonso Pueblo, thence to Rio Grande within Pueblo jurisdiction of the Rio Grande River. The designated uses for this segment are livestock watering, wildlife habitat, limited aquatic life and secondary contact.

Inspection Details

The inspector arrived at the LAWWTF at 11:04 a.m. and was met by, Mr. Marcos Ocanas, Mr. Johnathon Gonzales and Mr. Jeremy Martinez all certified operators. The Inspector made introductions, showed her credentials and explained the purpose of her visit. Facility managers, Mr. Jeff Ayers and Ms. Jennifer Baca were away at the time of the inspection picking up replacement parts, and were called on the phone to be informed of the inspection. Mr. Ocanas accompanied the Inspector throughout the treatment plant and laboratory. Ms. Katelyn Mahoney, Environmental Compliance Specialist for Los Alamos County accompanied the Inspector to the reuse Group 12 holding tank. The Inspector left Los Alamos County facilities at 14:25 p.m. An exit interview was held with Mr. Ayers, Ms. Jennifer Baca, the following Thursday August 17, 2017 in Santa Fe. They provided the inspector with requested records at that time.

Treatment Scheme

The Los Alamos County WWTP serves the City of Los Alamos through approximately 110 miles of sewer lines. The collection system includes 27 lift stations. The final lift stations send water through an 18inch line to the influent Parshall Flume fitted with a pressure sensor – transducer flow meter and a staff gauge. Samples are taken past the Parshall flume for the NPDES permit Percent Reduction calculation of BOD and TSS. Influent then passes through a mechanical screw pump – grinder- screener or a manual bar screen depending on maintenance requirements. Screenings are bagged and collected in a dumpster for disposal at the county landfill. Water then flows to an aerated grit removal system before being sent through the rest of the treatment works. The collected grit is also disposed of at the county land fill.

Past the grit removal basin, flow can be split into parallel treatment trains. Following screening and grit removal, the sewage is sent to the anoxic zone of the treatment basin. The Dissolved

Oxygen (DO) is maintained at in this stage for optimal Nitrogen conversion and reduction. The water then flows to the rectangular aeration basins. Fine bubble diffused air distributed by two blowers, maintains a DO concentration of 1.04 mg/L. Each aeration basin has six mixers. The Mixed Liquor Suspended Solids (MLSS) in this basin were 2000 mg/L and can go up during the winter as the microbial activity slows with the cold weather.

Following aeration, the flow is sent to parallel secondary clarifiers. The sludge blanket was 1.5 feet thick at mid basin. Solids are wasted daily.

Decant from the clarifiers is sent through a final fine screen to Ultraviolet (UV) Disinfection, the Parshall Flume fitted with a pressure sensor, transducer flow meter and a staff gauge. This is also where effluent samples are taken for laboratory testing. The flow is sent either to Outfall 002 at Pueblo Canyon, or though treatment with a Myox system then to a holding tank for reuse.

Sludge

A new solids processing and composting site was built at the old Bayo WWTP location. Solids are wasted from the secondary clarifies and dewatered with a belt press and with polymer addition. These are then trucked to the Solids processing and composting site. The new solids processing site is approximately ½ mile away, where the old Bayo WWTP was located.

Grit removed from the head works is collected in a wheel barrow or hopper and after passing the paint filter test disposed of in the Los Alamos County landfill.

FURTHER EXPLANATIONS

Note: The sections are arranged according to the format of the enclosed EPA Inspection Checklist (Form 3560-3), rather than being ranked in order of importance.

Section A – Permit Verification – Overall Rating of "Satisfactory"

The permit in Part I Table I has a footnote for the WET test,

> **9 Once/quarter months shall be for the first year after the permit effective date; if all the test passes, frequencies would be once/6 months for Cd and once/year for Pp for the remaining term. If any WET test fails, frequency returns to once/quarter for the remaining term.*

The permittee requested clarification, about this requirement. The inspector contacted EPA and confirmed that the permittee must write EPA and request the reduction in test frequency once all tests have been completed successfully. The reduction in the testing requirement is not automatically applied by EPA's NetDMR reporting system and must be changed manually.

Section B – Record Keeping and Reporting – Overall Rating of "Satisfactory"

Findings For Record Keeping and Reporting:

As part of the inspection a records review was made of the month of June 2017, and Sludge records for 2016/17. Records were found to be complete and were submitted on time.

Section C - Operation and Maintenance – Overall Rating of "Marginal"
Permit Requirements For Operation and Maintenance:

The permit states in Part III. F. Definitions:

> *16. TREATMENT WORKS means any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage and industrial wastes of a liquid nature to implement Section 201 of the Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extension, improvement, remodeling, additions, and alterations thereof.*

The permit states in Part III. B.:

> *3. PROPER OPERATION AND MAINTENANCE*
> *a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.*

Findings For Operation and Maintenance
Numerous overflows have occurred in the reuse system and occasionally in the collection system. The permittee is responsive in a timely manner to these incidences; however, the numerous reuse system overflows indicates that additional attention may be needed to prevent them in the future.

Overflows
During the period of September 15, 2016 through September 10, 2017, nine overflows occurred in the reuse distribution system for the treated effluent.

Treated Effluent Reuse Overflows

Date	Location	Volume	Cause
July 28, 2017	South of Woodland Ave N of Golf Course	6,000 gallons	Leak in Welded Joint
July 4, 2017	Group 12 Tank	80,000 gallons	SCADA failure due to heat
April 30, 2017	Vacant field near soccer field	111,730 gallons	Pipeline break
March 23, 2017	Group 12 Tank	1,900 gallons	Accidental control shut off
March 14, 2017	Group 12 Tank	219,000 gallons	SCADA failure
November 6, 2016	Vacant field near soccer field	193,300 gallons	Pipe break

October 25, 2016	Group 12 Tank	70,000 gallons	SCADA failure
October 13, 2016	Group 12 Tank	39,840 gallons	
September 15, 2016	Arizona Ave & Woodland Drive	2,000 gallons	Pipe break

During the period of September 14, 2016 through September 10, 2017, five sewer and collection system overflows occurred.

Sewer overflows

Date	**Location**	**Volume**	**Cause**
August 18, 2017	Manhole at Intersection Hawk Dr. & N Mesa Dr.	175 gallons	Towels blocked mainline
July 5, 2017	NM502 & 4th St.	200 gallons	Mainline blockage by grease
June 11, 2017	Lift Station Diamond Dr. & North Rd.	200 gallons	Pump airlocked alarm did not operate properly
January 17, 2017	Manhole near Bayo Canyon below Camino Encantada	1,500gallons	Roots blocking line
September 14, 2015	By Aquatic Center	4,000 gallons	Roots blocking line

Section D – Self Monitoring – Overall Rating of "Marginal"
Permit Requirements For Self Monitoring
The permit requires in Part I. Section A. Limitations and Monitoring Requirements:

Aluminum, total recoverable: shall be sampled, by grab, and the concentration reported once per quarter.

Findings For Self Monitoring
The permittee did not take the sample during the second quarter of this year. This is the reason for the marginal rating.

Section E – Flow Measurements – Overall Rating of "Satisfactory"

Section F - Laboratory - Overall Rating of "Satisfactory"

Section G - Effluent and Receiving Water - Overall Rating "Satisfactory"

Permit Requirements For Effluent and Receiving Water
The permit requires in Part I. Section A. Limitations and Monitoring Requirements:
Total Residual Chlorine (TRC) shall be sampled daily by Instantaneous Grab sample, and the concentration shall be no higher than 11 micrograms/Liter

Findings For Effluent and Receiving Water:
The DMRs reported for the last year show an effluent an exceedance for Total Residual Chlorine May 31, 2017 of 60 micrograms/ Liter.

According to operators, this was a single event and the operator/trainee mistakenly allowed a discharge of reuse water to the effluent for a short period of time. Reuse water is treated w/ Chlorine per the Groundwater Discharge permit requirements. The facility manager has worked with operators to insure this does not reoccur.

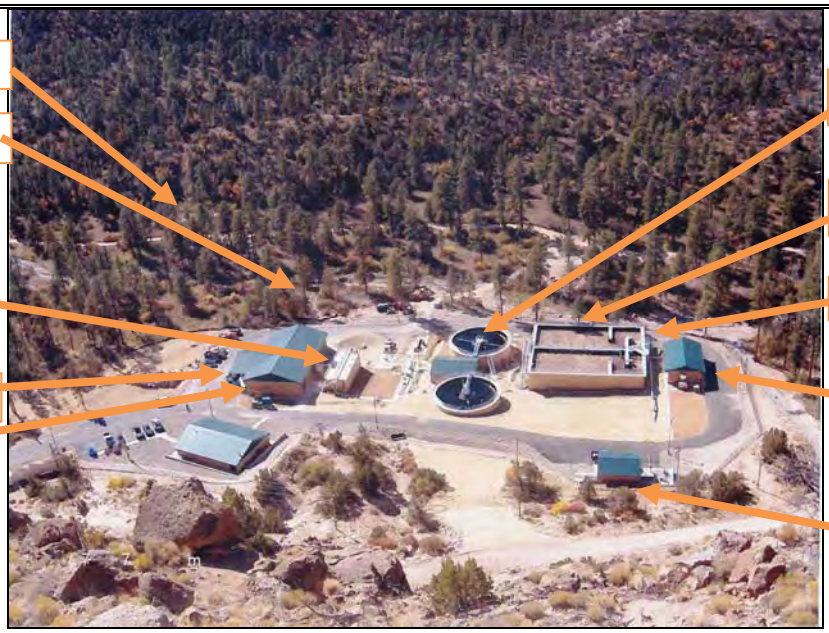
The laboratory and records review for June 2017 confirms that effluent reporting on the DMRs is consistent with supporting paper work at the facility.

Section H - Sludge Disposal - Overall Rating of "Satisfactory"
A new solids processing and composting has been built at the old Bayo WWTP location. Solids are wasted from the secondary clarifiers and dewatered with a belt press and polymer addition.

Grit removed from the head works is collected in a wheel barrow or hopper and after passing the paint filter test disposed of in the Los Alamos County landfill. The new solids composting site is an extension of this treatment plant and is covered under this NPDES permit.

Records were reviewed for solids testing and reporting for 2016. Quarterly testing appeared to be in order and complete based on production weight.

NMED/SWQB Official Photograph Log Photo # 1		
Photographer: Los Alamos County Record	Date: Unknown	Time: Unknown
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: Hill side view of the new WWTP (This photo is from the previous inspection, May 4, 2012)		



NMED/SWQB Official Photograph Log Photo # 2		
Photographer: Google Earth	Date: Unknown	Time: Unknown
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: **1.** Location of the New WWTP and Outfall 002 to Pueblo Canyon. **2.** The location of the Old Bayo WWTP is being converted to a solids and compost processing facility. **3.** The location of the old outfall 001 at Bayo Canyon. (This photo is from the previous inspection, May 4, 2012)		

NMED/SWQB Official Photograph Log Photo # 3		
Photographer: B. Cooney	Date: August 15, 2017	Time: 12:27 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: Headworks building houses influent channel, primary treatment for large solids removal, and grit removal. Solids and grit are bagged and placed in the dumpster, seen in this photo, for disposal at the county landfill.		

NMED/SWQB Official Photograph Log Photo # 4		
Photographer: B. Cooney	Date: August 15, 2017	Time: 12:29 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: Influent channel, flow measured through an 8" Parshall Flume and a totalizing meter.		

NMED/SWQB Official Photograph Log Photo # 5		
Photographer: B. Cooney	Date: August 15, 2017	Time: 12:33 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: Headworks and solids removal screw pump with bagging system. All solids removed form headworks are disposed of at the county landfill after passing the paint filter test.		

NMED/SWQB Official Photograph Log Photo # 6		
Photographer: B. Cooney	Date: August 15, 2017	Time:12:39 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: One Variable Rate Blower for Aeration Basins. The other three blowers are single stage and are used in rotation during operation.		

NMED/SWQB Official Photograph Log Photo # 7		
Photographer: B. Cooney	Date: August 15, 2017	Time:12:43 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: Anoxic Zone – Dissolved Oxygen is maintained at 0.0 mg/L		

NMED/SWQB Official Photograph Log Photo # 8		
Photographer: B. Cooney	Date: August 15, 2017	Time: 12:44 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: Aeration Basin – the air diffuses on the bottom of the basins are effectively aerating the entire basin. There were no observable "dead spots" that would indicate a malfunctioning diffuser.		

NMED/SWQB Official Photograph Log Photo # 9		
Photographer: B. Cooney	Date: August 15, 2017	Time:12:53 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: one of two secondary clarifiers. Only one was in operation as the other clarifier was offline for annual cleaning and maintenance.		

NMED/SWQB Official Photograph Log Photo # 10		
Photographer: B. Cooney	Date: August 15, 2017	Time: 12:56 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: Waste Activated Sludge (WAS) and Return Activated Sludge (RAS) pumps and piping following the aeration basins were maintained and operational.		

NMED/SWQB Official Photograph Log Photo # 11 & 12		
Photographer: B. Cooney	Date: August 15, 2017	Time: 13:00 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: Effluent flow measurement follows the Ultraviolet (UV) disinfection system. The UV system consists of two banks of lights. All systems were operating at the time of the inspection.		

NMED/SWQB Official Photograph Log Photo # 13		
Photographer: B. Cooney	Date: August 15, 2017	Time: 13:07 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: Then outfall is to Pueblo Canyon. The treated wastewater was clear and free of foam and floating material. The Pueblo canyon below the outfall has riparian habitat and a wetland below the confluence with Bayo Canyon.		

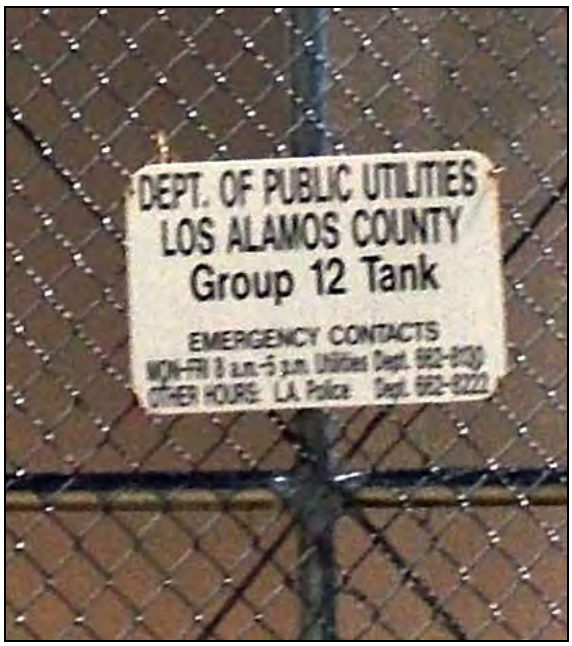
NMED/SWQB Official Photograph Log Photo # 14		
Photographer: B. Cooney	Date: August 15, 2017	Time: 13:17 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: The polymer used for dewatering solids are stored in the belt press building. There is no secondary containment around the barrels.		

NMED/SWQB Official Photograph Log Photo # 15		
Photographer: B. Cooney	Date: August 15, 2017	Time: 13:18 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: Dewatered solids are transported to the composting area for processing.		

NMED/SWQB Official Photograph Log Photo # 16		
Photographer: B. Cooney	Date: August 15, 2017	Time:11:53 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: The composting area is on an asphalt pad. The area is surrounded by a raised road bed that acts like a berm to prevent runoff.		

NMED/SWQB Official Photograph Log Photo # 17		
Photographer: B. Cooney	Date: August 15, 2017	Time: 11:56 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: Reuse holding pond. Treated wastewater is held in the pond to be pumped up to holding tanks in Los Alamos for use on parks and the golf course.		

NMED/SWQB Official Photograph Log Photo # 18 & 19		
Photographer: B. Cooney	Date: August 15, 2017	Time: 14:09 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: Reuse water is held in Group 12 Tank. This tank has overflowed because of problems with the electronic SCADA control system discharging to the Perimeter Trail.		



NMED/SWQB Official Photograph Log Photo # 20		
Photographer: B. Cooney	Date: August 15, 2017	Time: 14:10 Hours
City/County: Los Alamos / Los Alamos		State: New Mexico
Location: Los Alamos County – Los Alamos Wastewater Treatment Facility		
Subject: Group 12 tank over flow area has been lined with rocks to reduce erosion when the tank overflows.