NEW MEXICO
ENVIRONMENT DEPARTMENT

SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

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

RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

Certified Mail - Return Receipt Requested

March 16, 2015

Honorable Mark Hatzenbuhler
Mayor
Village of Cuba
P.O. Box 426
Cuba, NM 87013

Re: Minor Municipal; SIC 4952; Compliance Evaluation Inspection; Village of Cuba Wastewater Treatment Plant; NPDES Permit No. NM0024848; February 6, 2015

Dear Mayor Hatzenbuhler:

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.

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:

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

Bruce Yurdin
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/ Bruce J. Yurdin

Bruce J. Yurdin
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: Rashida Bowlin, USEPA (6EN-AS) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Raquel Douglas, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson, USEPA (6EN) by e-mail
NMED District II, 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 4 8 4 8 11	12 1 5 0 2 0 6 17	18 C	19 S 20	1

Remarks

M I N O R M U N I C I P A L C U B A W W T P

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved
67 1 69	70 2	71 N 72	N 73	74 75 M I N 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)*

Village of Cuba
P.O. Box 426
Cuba, NM 87013 Phone(505) 289-3864 Fax(505) 289-3769
Sandoval County

Entry Time /Date
11:00 HOURS / 2015-02-06

Exit Time/Date
15:10 HOURS / 2015-02-06

Permit Effective Date
2010 September 01

Permit Expiration Date
2015 August 31

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
Ms. Vandora P. Casados: Water Utilities Director Phone(575) 289-3864
Ms. Ester Herrera 575 -289-2020
Mr. Antonio Crespin, Operator 575 -289-2020
Ms. Pamela Ramirez, Operator 575 -289-2020

Other Facility Data

SIC 4952

LAT N 35°59'3.984"

LONG W 106° 59' 49.992"

Name, Address of Responsible Official/Title/Phone and Fax Number
Mark Hatzenbuhler, Mayor
Village of Cuba
P.O. Box 426
Cuba, NM 87013 Phone(575) 289-2020 Fax(575) 289-3769

Contacted
Yes [X] No [ ]

Section C: Areas Evaluated During Inspection

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

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

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

SEE ATTACHED FURTHER EXPLANATIONS SECTION OF THIS REPORT FOR DETAILS

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
/s/ BARBARA COONEY	NMED/SWQB 505-827-0212 / 505-827-0167	*March 16, 2015*
Signature of Management QA Reviewer */s / SHELLY LEMON*	**Agency/Office/Phone and Fax Numbers** 505-827-0187	**Date** *March 16, 2015*

EPA Form 3560-3 (Rev. 9-94) Previous editions are obsolete.

Village of Cuba Wastewater Treatment Plant	PERMIT NO. NM0024848

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED No*)

DETAILS: A permit application must be submitted 180 prior to the expiration date of this permit August 31, 2015.

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE New Mayor and signatory	☐ 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: Missing DMR reports not received by NMED nor by EPA

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. - Late DMR submittals are the reason for the marginal rating	☐ 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 second phase of treatment for solids handling and the distribution line for seasonal reuse has not been completed. This was required to be completed on the date of September 30, 2013.

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

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 No__).*
DETAILS:

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 Sample collection for bacteria must be directly into the sample bottle	☐ 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_____)*	☒ 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

PERMIT NO. NO. NM0024848

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 Environmental Bio Aquatics

LAB ADDRESS 4901 Hawkins NE / Albuquerque, NM 87109 Carrollton, TX

PARAMETERS PERFORMED Nitrogen, Phosphorous, BOD5, Ammonia, TSS Whole Effluent Toxicity

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	Slight	Clear	None

RECEIVING WATER OBSERVATIONS
Discharges are occurring during the restricted time of year.

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED No).*
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: NONE (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

On February 6, 2015 a Compliance Evaluation Inspection (CEI) was conducted at the Village of Cuba Wastewater Treatment Plant (WWTP) by Barbara Cooney of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB). The inspection was conducted by NMED for the US Environmental Protection Agency (USEPA), Region VI, under the National Pollutant Discharge Elimination System (NPDES) permit program, in accordance with the Federal Clean Water Act. These inspections are conducted under contract with the USEPA and are used by USEPA to evaluate compliance with the NPDES permit program. This inspection report is based on information supplied by the representatives (the permittee), observations made by the NMED inspectors, reports and records kept by the permittee and/or NMED.

Inspection Details

The inspector arrived at the Village of Cuba office then traveled to the Wastewater Treatment Plant (WWTP) at 11:00 hours. She met with Vandora Casados, Village Clerk and Ester Herrera, Water Clerk, Mr. Antonio Crespin, Wastewater Operator Level 2, Pamela Ramirez Wastewater Operator Level 2. The inspector showed her credentials and explained the purpose of the inspection. Mr. Crespin and Ms. Ramirez accompanied the inspector on a tour of the facility. Copies of records were provided to the inspector for review.

An exit interview followed the inspection with Mayor, Mark Hatzenbuhler, Ms. Casados, Ms. Herrera and Mr. Crespin. The inspector left the facility at 15:15 hours.

Treatment Scheme

Raw sewage enters the treatment plant via the approximately 5 miles long collection system from the town. The flow is transported by gravity and one lift station in town. A second lift station at the entrance works of the WWTP carries sewage from a subdivision of about 20 homes to the WWTP.

The new treatment plant is an Aero-mod Design. Influent enters the headworks and manual bar screen, flows through a Parshall flume and ultrasonic flow meter, and enters the pre-activation basin. Flow is then split into two trains of aeration basins (activation basins) where aerobic and anaerobic phases occur. After the activation basins, wastewater enters the secondary clarifiers and then passes through ultraviolet disinfection and a Parshall flume and ultrasonic flow meter prior to discharge to the Rio Puerco. Effluent travels approximately 1/8 mile through an enclosed pipe that discharges to an earthen unlined irrigation ditch. Currently, the irrigation ditch has failed banks that cause the effluent to flow across a field to the Rio Puerco. Return Activated Sludge (RAS) is sent from the secondary clarifiers back to the aeration basins. Waste Activated Sludge (WAS) is sent to the solids thickeners then to the old plant's aerated lagoon system.

The old plant had a series of sand filters that have been decommissioned and are no longer in use.

The treatment plant is designed to process 0.14 MGD of wastewater.

Sludge Handling

Solids are being sent to the aerated lagoons in the old treatment plant. There is no final disposal of solids at this time. Solids are being held on site.

Further Explanations

Note: The sections are arranged according to the format of USEPA Form 3560-3 and checklist, attached, rather than being ranked in order of importance.

Record Keeping and Reporting (Overall Rating Marginal)

Permit Requirements for Record Keeping and Reporting

The permit requires, in Part I Section C. Monitoring and Reporting:

a. The permittee shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the treated discharge.

b. Monitoring information shall be on Discharge Monitoring Reports Form(s) EPA 3320-1 as specified in Part III.D.4 of this permit and shall be submitted quarterly. Each quarterly submittal shall include separate forms for each month of the reporting period.

c. Reporting periods shall end on the last day of the months March, June, September and December.

d. The permittee is required to submit regular quarterly reports as described above postmarked no later than the 28th day of the month following each reporting period.

The permit requires, in Part III, Section D.4. Discharge Monitoring Reports and Other Reports:

Monitoring results must be reported on Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the "General Instructions" provided on the form. The permittee shall submit the original DMR signed and certified as required by Part III.D.II and all other reports required by art II.D to the EPA at the address below. Duplicate copies of the DMR's and all other reports shall be submitted to the appropriate State agency(ies) at the following address(es):

EPA:
Compliance Assurance and Enforcement Division
Water Enforcement Branch (6EN-W)
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

New Mexico:
Program Manager
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 5469
1190 Saint Francis Drive, Room N2050
Santa Fe, NM 87502-5469

The permit requires in Part III, C. 4. Records Content:

Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;

b. The individual(s) who performed the sampling or measurements;

c. The date(s) and times(s) analyses were performed;

d. The individual (s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

Findings for Record Keeping and Reporting

Records were reviewed for the period of December 2013 to the present. Additional copies of records for the fourth quarter: October, November and December 2014 were provided to the inspector.

1. Discharge Monitoring Reports (DMRs) have been submitted late for the last 9 months:

Monitoring Period	Due Date	Received Date at NMED	Late
December 2014	January 28, 2015	February 6, 2015	LATE
November 2014	January 28, 2015	February 6, 2015	LATE
October 2014	January 28, 2015	February 6, 2015	LATE
September 2014	October 28, 2014	February 6, 2015	LATE
August 2014	October 28, 2014	February 6, 2015	LATE
July 2014	October 28, 2014	February 6, 2015	LATE
June 2014	July 28, 2014	October 8, 2014	LATE
May 2014	July 28, 2014	October 8, 2014	LATE
April 2014	July 28, 2014	October 8, 2014	LATE
March 2014	April 28, 2014	April 23, 2014	ON TIME
February 2014	April 28, 2014	April 23, 2014	ON TIME
January 2014	April 28, 2014	April 23, 2014	ON TIME
December 2013	January 28, 2013	January 23, 2014	ON TIME

2. Effluent concentrations for Total Nitrogen, Nitrogen Ammonia, and Total Phosphorus are being reported on the DMRs as less than "< 1" for pounds per day and for concentrations of mg/L. The actual value of the pounds per day and the concentration must be reported.

3. The DMR hard copy forms being used do not correctly identify the permit requirements for Total Nitrogen, Total Phosphorus, and Nitrogen Ammonia. The effluent limits became effective September 1, 2013.

The EPA is encouraging permittees to transition from submitting DMRs as paper copies to the NetDMR system. Information on the NetDMR training can be found at: http://epa.gov/netdmr/about/training.html

Operation and Maintenance (Overall Rating Unsatisfactory)

Permit Requirements for Operation and Maintenance

The permit requires, in Part III, Section B.3, Proper Operation and Maintenance

> *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.*
>
> *The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.*

The permit requires in part I, Section B., Schedule of Compliance

> *The permittee shall achieve compliance with the total nitrogen, total phosphorous, and total ammonia effluent limitation specified for discharges in accordance with the following schedule:*
>
> | *Activity* | *Date of Completion* |
> |---|---|
> | *Commence Construction* | *1 year after permit effective date* |
> | *Complete Construction* | *3 years after permit effective date* |
> | *Achieve Final Effluent Limitations* | *3 years after permit effective date* |
>
> *The permittee shall submit progress reports along with the DMRs Quarterly at the Schedule specified in the section C.1.d, below.*

Findings for Operation and Maintenance

1. The reuse line (Phase II of construction) has not been completed[SL1].
2. No grit removal is in place at the headworks.
3. Old solids were observed in aeration basins and secondary clarifier.
4. Floating solids were observed in the Ultra Violet disinfection basin.
5. Inadequate number of operator staff. The current staff have improved overall operations at the WWTP since the last inspection. Additional training for each operator is suggested.
6. Influent flow meter was out of order at the time of the inspection.
7. Solids management is inadequate for long term operation of an activated sludge treatment plant such as this.

Effluent/Receiving Waters Observations (Overall Rating Unsatisfactory)

Permit Requirements for Effluent/Receiving Waters

The permit requires in Part I:

During the period beginning on the date of three years from the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from outfall serial number 001. Discharges are prohibited through months from April 1 through October 31 each year. Discharges from November 1 through March 31 each year shall be limited and monitored by the permittee as specified below:

		DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted (*1)				
POLLUTANT	STORET CODE	30-DAY AVG	7-DAY AVG	30-DAY AVG	7-DAY AVG	DAILY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD	Report MGD	***	***	***	Continuous	Totalizing Meter
Biochemical Oxygen Demand, 5-day	00310	36	54	30	45	N/A	2/Month	Grab
Total Suspended Solids	00530	36	54	30	45	N/A	2/Month	Grab
E. Coli Bacteria (*2)	51040	N/A	N/A	548	N/A	2507	2/Month	Grab
Total Residual Chlorine	50060	N/A	N/A	N/A	N/A	19 ug/l (*3)	Daily	Instantaneous Grab (*2)
Total Nitrogen	00600	12	N/A	10	N/A	15	1/ 2-Week	3-Hr Composite
Total Phosphorus	00665	1.2	N/A	1.0	N/A	1.5	1/ 2-Week	3-Hr Composite
Total Ammonia	00610	Report	N/A	1.0	N/A	1.5	1/ 2-Weeks	3-Hr Composite
Total Aluminum	01105	N/A	N/A	Report	N/A	Report	1/Month	3-Hr Composite
Dissolved Aluminum	01106	N/A	N/A	Report	N/A	Report	1/Month	3-Hr Composite

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
		Standard Units			
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.6	8.8	Daily	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING	MONITORING REQUIREMENTS

*WHOLE EFFLUENT TOXICITY TESTING (7-Day Static Non-Renewal) (*4)*	*30-DAY AVG MINIMUM*	*7-DAY MINIMUM*	*MEASUREMENT FREQUENCY*	*SAMPLE TYPE*
Ceriodphnia dubia	*Report*	*Report*	*1/Year*	*3-Hr Composite*
Pimephales promelas	*Report*	*Report*	*1/Year*	*3-Hr Composite*

The permit requires in Part III, C.5. Monitoring Procedures

a. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.
b. the permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of the measurements and shall maintain appropriate record of such activities.

Findings for Effluent/Receiving Waters:

1. Effluent exceedence for E. coli bacteria February 2014

2. Discharges are prohibited from April 1 through October 31 each year. Because the reuse line has not been completed, discharge of effluent to the Rio Puerco is occurring during months when no discharge is allowed. These include:

- October 2013
- November 2013
- December 2013
- January 2014
- February 2014
- March 2014
- October 2014
- November 2014
- December 2014
- January 2015
- February 2015
- March 2015

Compliance Schedule (Overall Rating Unsatisfactory)

Permit Requirements for Compliance Schedule

The permit requires in part I, Section B., Schedule of Compliance:

The permittee shall achieve compliance with the total nitrogen, total phosphorous, and total ammonia effluent limitation specified for discharges in accordance with the following schedule:

Activity	*Date of Completion*
Commence Construction	*1 year after permit effective date*
Complete Construction	*3 years after permit effective date*
Achieve Final Effluent Limitations	*3 years after permit effective date*

The permittee shall submit progress reports along with the DMRs Quarterly at the Schedule specified in the section C.1.d, below.

The permit requires in Part I, Section A, Effluent Limitations and Monitoring Requirements:

During the period beginning on the date of three years from the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from outfall serial number 001. Discharges

are prohibited through months from April 1 through October 31 each year. Discharges from November 1 through March 31 each year shall be limited and monitored by the permittee…

Findings for Compliance Schedule

The permit became effective September 1, 2010. The permittee was required to meet and achieve final effluent limitations, including no discharge from April 1 through October 31, within three years after the permit effective date. That date was September 1, 2013. The permittee continues to discharge to the Rio Puerco year-round, however discharges are only authorized from November 1 through March 31. The WWTP construction of Phase II (solids management and agricultural reuse) has not begun. This phase of construction is necessary for the reuse of wastewater during the restricted months and for solids handling. Until Phase II is completed, the permittee will be out of compliance with its NPDES permit.

Sludge Handling and Disposal (Overall Rating Marginal)

Permit Requirements for Sludge Handling and Disposal

The permit in Part III. F defines sludge as:

15. SEWAGE SLUDGE means the solids, residues, and precipitates separated from or created in sewage by the unit processes of a publicly owned treatment works. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and storm water runoff that are discharged to or otherwise enter a publicly owned treatment works.

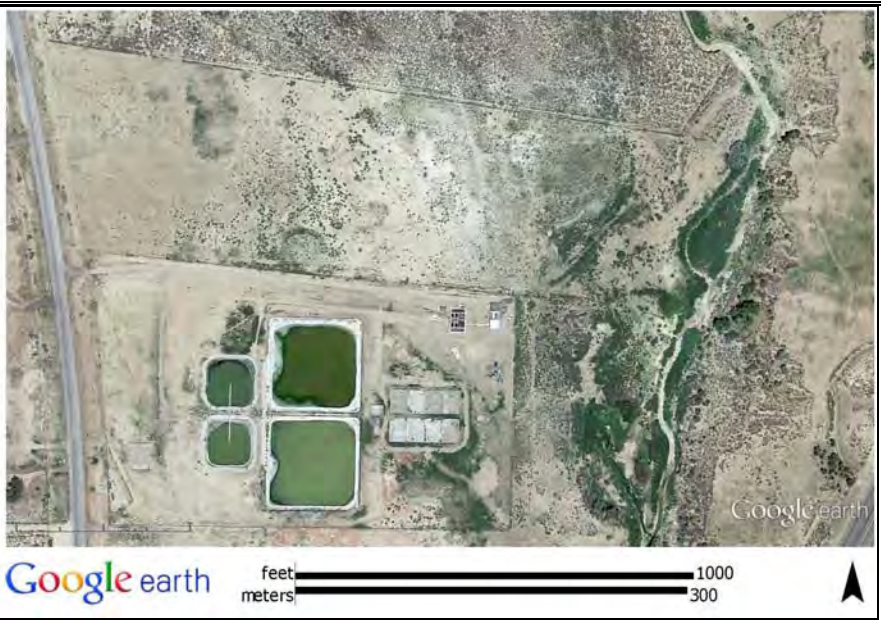
Findings for Sludge Handling and Disposal

The permittee is storing solids onsite in the old aerated lagoons of the previous treatment plant. This is a short term solution for the new activated sludge treatment process. A long term solution for solids management must be implemented.

NMED/SWQB Official Photograph Log Photo # 1		
Photographer: Google Earth	Date: Unknown	Time: Unknown
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Wastewater Treatment Plant – Aerial View – New Aero-Mod System.		

NMED/SWQB Official Photograph Log Photo # 2		
Photographer: Google Earth	Date: Unknown	Time: Unknown
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Aerial view of the new Aero-Mod treatment system, the old aerated lagoons, holding ponds and sand filters.		

NMED/SWQB Official Photograph Log Photo #3		
Photographer: Google Earth	Date: Unknown	Time: Unknown
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Aerial view of the treatment plant. Additionally 17.6 acres of land directly north of the facility is now owned by the Village of Cuba and will be used for the surface – agricultural land application for the reuse water from the treatment plant during the warm months of April through October . The distribution lines and solids handling has not yet been constructed.		



NMED/SWQB Official Photograph Log Photo #4		
Photographer: B. Cooney	Date: February 6, 2015	Time: 12:29 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Influent bar screen. Not grit removal system. Large solids are hand raked from the screen, placed in the trash can and disposed of at the county landfill.		

NMED/SWQB Official Photograph Log Photo # 5		
Photographer: B. Cooney	Date: February 6, 2015	Time: 12:22 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Influent flow measurement – staff gauge at the Parshall flume. The ultrasonic sensor was out of service at the time of the inspection.		

NMED/SWQB Official Photograph Log Photo # 6		
Photographer: B. Cooney	Date: February 6, 2015	Time: 12:42 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Influent wastewater – following the bar screen and flow measurement, enters the pre-activation basin. Operators have install a plastic milk carton crate to capture additional large solids that are not removed by the bar screen. Without a grit removal system fine grit and solids are entering the secondary processes and have the potential to interfere with treatment works such as aerators, pumps and filters.		

NMED/SWQB Official Photograph Log Photo # 7		
Photographer: B. Cooney	Date: February 6, 2015	Time:
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Activation basin during the aeration phase. Fine bubble diffusers near the bottom of the basin effectively aerate and act as mixers in the basin.		

NMED/SWQB Official Photograph Log Photo # 8		
Photographer: B. Cooney	Date: February 6, 2015	Time: 12:45 HOurs
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Another view of the activation basin. The Mixed Liquor Suspended Solids (MLSS) in the basin acoording to operators is being maintained near 6000 mg/L during the winter months, when microbial activity is low. However there is indication in the basin of older solids and increased wasting may be necessary.		

NMED/SWQB Official Photograph Log Photo # 9		
Photographer: B. Cooney	Date: February 6, 2015	Time: 12:46 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Activation basin during the resting phase where blower are turned off and no aeration takes place. Floating solids indicate grease and older solids in the basin.		

NMED/SWQB Official Photograph Log Photo # 10		
Photographer: B. Cooney	Date: February 6, 2015	Time: 12:52 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Secondary Clarifier, floating solids are noted exiting the basin. Water from this basin goes to Ultraviolet disinfection then to the outfall.		

NMED/SWQB Official Photograph Log Photo # 11		
Photographer: B. Cooney	Date: February 6, 2015	Time: 13:03 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Sludge blanket in the secondary clarifier before wasting is between 7 and 8 feet with a diffuse layer above. The basins are 25 feet deep.		

NMED/SWQB Official Photograph Log Photo #12		
Photographer: B. Cooney	Date: February 6, 2015	Time: 13:07 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: The sludge blanket in the secondary clarifiers after solids wasting are 4 -5 feet with a diffuse layer above.		

NMED/SWQB Official Photograph Log Photo # 13		
Photographer: B. Cooney	Date: February 6, 2015	Time: 13:10 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Solids thickener basin in the settling and decant phase. Solids are sent to the old aerated lagoons when wasted. Decant is returned to the activation basin.		

NMED/SWQB Official Photograph Log Photo # 14		
Photographer: B. Cooney	Date: February 6, 2015	Time: 13:12 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Ultraviolet Disinfection system – 4 banks of lights. Operators clean the lights weekly. A slight amount of floating solids are noted in the chamber.		

NMED/SWQB Official Photograph Log Photo # 15		
Photographer: B. Cooney	Date: February 6, 2015	Time: 13:15 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Effluent Parshall Flume Flow Meter and staff gauge.		

NMED/SWQB Official Photograph Log Photo # 16		
Photographer: B. Cooney	Date: February 6, 2015	Time: 13:16 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Final effluent is clear.		

NMED/SWQB Official Photograph Log Photo # 17		
Photographer: B. Cooney	Date: February 6, 2015	Time: 13:23 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Blowers and control room. The blowers are used in alternate cycle rotation.		

NMED/SWQB Official Photograph Log Photo # 18		
Photographer: B. Cooney	Date: February 6, 2015	Time: 13:26 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: Laboratory and work bench.		

NMED/SWQB Official Photograph Log Photo # 19		
Photographer: B. Cooney	Date: February 6, 2015	Time: 13:27 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant		
Subject: pH buffers – pH 4 pH7 Ph10		

NMED/SWQB Official Photograph Log Photo # 20		
Photographer: B. Cooney	Date: February 6, 2015	Time: 13:27 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant - Laboratory		
Subject: The pH buffer. The dates the boxes were opened should be hand written and initialed on the containers.		

NMED/SWQB Official Photograph Log Photo # 21		
Photographer: B. Cooney	Date: February 6, 2015	Time: 13:39 Hours
City/County: Cuba /Sandoval		State: New Mexico
Location: Cuba Wastewater Treatment Plant - Laboratory		
Subject: Flow meter calibration log. Last date of calibrations were August 22, 2014