NEW MEXICO
ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

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Deputy Secretary

JAMES H. DAVIS, Ph.D.
Director
Resource Protection Division

Certified Mail - Return Receipt Requested

21 June 2012

Mr. Ruben Salcido
Operation Mgr. & Environmental Coordinator
Water / Wastewater Utilities Division
City of Farmington
800 Municipal Road
Farmington, NM 87401

Re: **Major Municipal; SIC 4952; NPDES Compliance Evaluation Inspection; Farmington Wastewater Treatment Plant; NM0020583; May 24, 2012**

Dear Mr.Salcido:

Enclosed, please find a copy of the report for the referenced inspection that the New Mexico Environment Department (NMED) Surface Water Quality Bureau (SWQB) 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.

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 to modify your operational and/or administrative procedures, as appropriate.

I wish to thank you for the cooperation of the City of Farmington representatives including Mr. Dean Roquemore and Ms. Monica Peterson both of OMI.

If you have any questions about this inspection report, please contact me at (505) 827-0212.

Sincerely,
/s/ Barbara Cooney

Barbara Cooney
Surface Water Quality Bureau

cc: Marcia Gail Adams, USEPA (6EN-AS) by e-mail
Samuel Tates, USEPA (6EN-AS) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Diana McDonald, USEPA (6EN-WM) by e-mail
Larry Giglio, USEPA (6WQ-PP) by e-mail
Hannah Branning, USEPA (6EN-WC) by e- mail
NMED District II 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
N	NM0020583	120524	C	S	1

Remarks: FARMINGTON WW TP

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved
1	3	N	N	MAJOR

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*
Farmington WWTP NPDES # NM0020583---
1395 South Lake Street; Farmington, NM 87401-2663
(go south on lake street, past the Hospital, make a jog to the east and past Murry Street turn south to gate of plant)
San Juan County, New Mexico

Entry Time /Date
09:13 a.m./ May 24, 2012

Permit Effective Date
November 1, 2010

Exit Time/Date
17:20 p.m./ May 24, 2012

Permit Expiration Date
October 31, 2015

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
Mr. Dean Roquemore - OMI., Operation Manager 505-215-7027
Mr. Ron Rosin - OMI, Area Manager 505-326-1918
Ms. Monica Peterson -OMI, Laboratory Manager 505-325-6953
Mr. Ruben Salcido, City of Farmington Water/Waste Division O&M Manager 505-599-1284

Other Facility Data

SIC Code: 4952

Coordinates in Decimal Degree For:
Latitude: North 36.71719
Longitude: West108.22217

Name, Address of Responsible Official/Title/Phone and Fax Number
Mr. Ruben Salcido, City of Farmington Water/Waste Division, O&M Manager
800 Municipal Drive ; Farmington, NM 87401-2663

Contacted: Yes * 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
S	Records/Reports	S	Self-Monitoring Program	S	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	N	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 "Further Explanations" section for details.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
/s/ Barbara Cooney	NMED/SWQB 505-827-0212 /Fax 505-827-0160	*21 June 2012*
Signature of Management or QA Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date** *June 21, 2012*
/s/ Richard Powell	NMED/SWQB 505-827-0187	

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

Farmington WWTP	PERMIT NO. NM0020583

SECTION A - PERMIT VERIFICATION

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

DETAILS:

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 NO*)
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 Unacceptable Rating is based on the continuing problem of Sanitary Sewer Overflows and the absence of any treatment process to reduce TDS.

1. TREATMENT UNITS PROPERLY OPERATED. Continuing problem with sanitary sewer overflows.	☐ 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. - No treatment process for the removal of TDS.	☐ 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

Farmington WWTP	PERMIT NO. NM0020583

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR?Reports submitted w/DMR	☒ 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	☒ 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* within last year)	☒ 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 Yes)*
DETAILS:

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

Farmington WWTP	PERMIT NO. NM0020583

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. At least 10 % OF THE TIME. ☒ Y ☐ N ☐ NA

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

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

LAB NAME Bio Aquatics

LAB ADDRESS Carrolton, TX

PARAMETERS PERFORMED Bio Monitoring

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
01	no	no	no	no	no	Slightly green	

RECEIVING WATER OBSERVATIONS Effluent Exceedences for TDS and TSS

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: _____ (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 City of Farmington Waste Water Treatment Plant (WWTP) by Ms. Barbara Cooney and Mr. Daniel Valenta of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) on 24 May 2012. 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 NM0020583. The Standard Industrial Classification Code (SIC) is 4952. The facility has a design flow of 6.67 Million Gallons per Day (MGD) and discharges into the San Juan River in water quality segment 20.6.4.401 of the San Juan River Basin *(State of New Mexico Standards for Interstate and Intrastate Surface Waters)*. The designated uses for the segment are municipal and industrial water supply, irrigation, livestock watering, wildlife habitat, secondary contact, marginal coldwater aquatic life and warmwater aquatic life.

INSPECTION DETAILS

The inspector Barbara Cooney arrived at the Farmington WWTP at 9:13 a.m on May 24, 2012 and was joined later that day, at approximately 2: 30 p.m. by inspector Daniel Valenta. The inspector showed her credentials and discussed the purpose of the inspection with Monica Peterson, Analytical Laboratory Manager for Operations Management Inc. (OMI). OMI is the contact operator of the WWTP for the City of Farmington. Mr Dean Roquemore, Operations Manager for OMI accompanied the inspector throughout the facilities during the Operations portion of the inspection. The laboratory was also inspected accompanied by Monica Peterson and other laboratory personnel. Records were provided to the inspectors for review. Following the inspection of the facility an exit interview was conducted with: Ron Rosin - OMI Area Manager, Dean Roquemore - OMI Operations Manager, Monica Peterson - OMI Laboratory Manager, and Ruben Salcido, City of Farmington Water/Wastewater Utilities Division O&M Manager. The inspectors left the facility at approximately 5:20 p.m.

TREATMENT SCHEME

The influent enters the WWTP through a collection system that is largely gravity flow and supplemented with a network of fifteen lift stations where necessary. A lift station is located directly preceding the head works of the treatment plant. The headworks consist of grinder air scrubber, and aerated grit chamber. The solids removed are conveyed to a hopper and sent to the landfill after passing the paint filter test. Septage is received before the headworks and is sent directly to the anaerobic digesters. Decant from the digesters is sent back to the headworks and mixed with the raw influent.

The wastewater then flows to one of two primary clarifiers known as A & B. From the primary clarifiers the decant is sent to either the trickling filters (25% to each of two trickling filters) or to the medium rate activated sludge (MRAS) treatment unit (50% of the total flow). Trickling filters have recently been rehabilitated, improving the distribution of water over the rock media. The MRAS is a modified aerated race track design that came on line in 2004. The unit has both aerobic treatment and an anoxic zone. The Dissolved Oxygen in the aerated sections is 2.5 to 3.0

mg/L. The flow from the trickling filter is mixed with that from the MRAS and sent to the final or secondary clarifiers. Gravity flow carries the treated wastewater to the chlorine contact chamber for disinfection, followed by dechlorination with sodium hypochlorite. The chlorine dosing as well as the dechlorination dosages are now distributed by an automated system. A radio signal sends the flow rates to the dosing unit for flow proportioning. The treated water then passes through the Parshall flume for effluent flow measurement, then is discharged to the San Juan River.

SLUDGE

The solids from the primary clarifiers and the MRAS are wasted to the anaerobic digester. The solids from the secondary clarifiers are sent back as Return Activated Sludge (RAS) to the head of the treatment plant. Digested solids are passed through a mobile belt press to aid in dewatering before they are sent to the drying beds. Final surface disposal for the solids is at the San Juan County Regional 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 "Satisfactory"

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

Section C - Operation and Maintenance – Overall Rating "Unsatisfactory"

Permit Requirements for Operation and Maintenance

The permit requires on page 2 of Part III. 3. Proper Operations 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.*

Findings for Operation and Maintenance

1. The City of Farmington continues to have problems with Sanitary Sewer Overflows. The area of particular concern is below San Juan College. It may be advisable for more frequent monitoring of that part of the collection system to prevent future overflows from reaching surface waters. This is a contributing factor to the "Unsatisfactory" rating.

2. There is no mechanism currently in place to reduce the TDS. This is a contributing factor to the "Unsatisfactory" rating.

3. Improvements have been made to the septage collection system, to better control the accepted waste. Other improvements include rehabilitation to the trickling filters to better manage the distribution of the water over the rock media.

4. The air scrubber system at the head works has been modified to incorporate a water and biological media system that is effective at reducing the potential release of influent odors and noxious gasses.

5. The MRAS treatment unit had a slightly grey color, indicating some unhealthy effects of recent influent on the aerobic microbes in the treatment unit. Prior to the inspection there had been some unknown substances entering the collection system in combination with the rapidly changing Spring season weather and increasing temperatures. This requires close monitoring by the plant operators to insure effective treatment is maintained.

6. The City of Farmington and other communities in the 4 Corners area are developing regional wide plans for wastewater management. Within the last few years the town of Kirkland and the community of Sunland Park have come on line to the collection system and the wastewater is now being processed through the Farmington WWTP. The WWTP is currently operating at 83% to 84% of it's total capacity of 6.67MGD. As the plant takes on more of the wastewater from surrounding communities it is necessary for the permittee to continue to notify EPA and NMED of the changes. If there is a point when the permittee intends to increase the design capacity of the WWTP it will be necessary through the NPDES permit process to undergo an Antidegredation review as found in the State of New Mexico Standards for Interstate and Intrastate Surface Waters 20.6.4 NMAC.

Section D - Self Monitoring - Overall Rating " Satisfactory"

Section F - Laboratory - Overall Rating "Satisfactory"

Permit Requirements for Laboratory

The permit requires in Part III. 5. MONITORING PROCEDURES

> c. An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate
> samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.

The permit requires in Part III 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*.

Findings for Laboratory

Laboratory procedures, records and reports were reviewed for the month of March 2012. As part of the Quality Assurance and Quality Control (QAQC) part of laboratory operations the Biochemical Oxygen Demand 5 day (BOD5) procedure is run with duplicates of the dilution series. This is considered by the laboratory to be duplicate analysis 100% of the time. The blank and the Glucose Glutamic Acid (GGA) are also run in triplicate with each analysis. This serves as a check of the dilution water and the equipment. This also validates the precision of the laboratory procedure.

The TSS are being analyzed with a modified method from the currently approved method found in Standard Methods 2540 D, i.e. the use of the "Shake and Pour" procedure from a graduated cylinder verses mix and pipette process to transfer the sample to the filter. This modified method is recorded in the Standard Operating Procedures and is following an email received from the EPA Region IV Laboratory, Mr. David Stockton directing the permittee on this modified procedure.

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

Permit Requirements for Effluent/Receiving Waters

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

Parameter	*Quantity Loading Lbs/day*				*Quality Concentration Mg/L (unless otherwise specified)*				
	30 day avg	*7day avg*	*Daily Max*		*30 day avg*	*7day avg*	*Daily max*	*Frequency*	*Sample Type*
pH						*Minimum 6.6 s.u.*	*Maximum 9.0 s.u.*	*5/week*	*Grab*
Flow	*Report*	*Report*							
BOD	*1,669*	*2,504*			*30*	*45*			*12 hr composite*
TSS	*1,669*	*2,504*			*30*	*45*			*12 hr composite*
E.coli Bacteria	*31.9**		*31.9**		*126 cfu*		*410 cfu*	*5/week*	*grab*
Total Residual Chlorine							*19 µg/L*	*Daily*	*grab*
TDS							*<400mg/L inc*	*1/week*	*12 hr composite*

* Billion (1.0 × 109) cfu/day. Loading limit calculated as follows: [Flow in MGD × cfu /100 ml in effluent × 3.79 ×107] / 1.0 × 109.

Finding for Effluent / Receiving Waters

From the time of the last inspection conducted by NMED at this facility there have been effluent exceedences for Total Dissolved Solids (TDS) and Total Suspended Solids (TSS).

Effluent Exceedences:

Date	**Parameter**	**Effluent Exceedence**
April 2012	TDS Inc < 400 mg/L 30 Day Avg	410 mg/L
March 2012	TDS Inc < 400 mg/L 30 Day Avg	445 mg/L
February 2012	TDS Inc < 400 mg/L 30 Day Avg	439 mg/L
January 2012	TDS Inc < 400 mg/L 30 Day Avg	423 mg/L
December 2011	TDS Inc < 400 mg/L 30 Day Avg	452 mg/L
November 2011	TDS Inc < 400 mg/L 30 Day Avg	454 mg/L
October2011	TDS Inc < 400 mg/L 30 Day Avg	408 mg/L
May 2011	TDS Inc < 400 mg/L 30 Day Avg	407 mg/L
April 2011	TDS Inc < 400 mg/L 30 Day Avg	401 mg/L
March 2011	TDS Inc < 400 mg/L 30 Day Avg	404mg/L
February 2011	TDS Inc < 400 mg/L 30 Day Avg	420 mg/L
January 2011	TDS Inc < 400 mg/L 30 Day Avg	421 mg/L
December 2010	TDS Inc < 400 mg/L 30 Day Avg	443 mg/L
November 2010	TDS Inc < 400 mg/L 30 Day Avg	422 mg/L
February 2011	TSS 30 Day Avg 1669 lbs/day	1718 lbs/day
February 2011	TSS 7 Day Avg 2504 lbs/day	2993 lbs/day
February 2011	TSS 30 Day Avg 30 mg/L	44 mg/L
February 2011	TSS 7 Day Avg 45 mg/L	76 mg/L

Section H - Sludge Disposal - Overall Rating "Satisfactory"

Attachment 1

San Juan River Water Quality Survey by the NMED SWQB Monitoring and Assessment Section (MAS), results of the Farmington WWTP Effluent Samples:

Station No.	Facility	Sample Date	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	*E. coli* (cfu /100 mL)	Total Residual Chlorine (mg/L)	Ammonia (mg/L)	pH	Nitrate + Nitrite (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Total Phosphorus (mg/L)
19	Farmington WWTP	16/Mar/2010			< 1		18.36	7.16	7.3	19	3.09
		14/Apr/2010	768		< 1		13.5	7.2	7.2	15	0.991
		11/May/2010		8	< 1		3.24	6.93	20	5.3	2.64
		16/Jun/2010			3.1		1.4	7.66	17	2.8	2.21
		21/Jul/2010	664		1		1.2	6.82	17	3.4	2.03
		18/Aug/2010			8.6		2.4	6.93	18	3.7	2.05
		14/Oct/2010	718		1	0.04	0.998	7.18	18	2.4	2.04
		2/Nov/2010			1		1.03	7.34	17	2.5	1.32

NMED/SWQB Official Photograph Log Photo # 1		
Photographer: B. Cooney	Date: 24 May 2012	Time: 9:55 a.m.
City/County: Farmington San Juan		State: New Mexico
Location: Farmington WWTP		
Subject: Parallel Influent Channels - screw pumps for grit removal.		

NMED/SWQB Official Photograph Log Photo # 2		
Photographer: B. Cooney	Date: 24 May 2012	Time: 10:04 a.m.
City/County: Farmington San Juan		State: New Mexico
Location: Farmington WWTP		
Subject: Septage Dump Station - contained and monitored full time by an operator.		

NMED/SWQB Official Photograph Log Photo #3		
Photographer: B. Cooney	Date: 24 May 2012	Time: 9:59 a.m.
City/County: Farmington San Juan		State: New Mexico
Location: Farmington WWTP		
Subject: Berms at the Septage Dump Station - contain waste from leaving the site.		

NMED/SWQB Official Photograph Log Photo #4		
Photographer: B. Cooney	Date: 24 May 2012	Time: 10:10 a.m.
City/County: Farmington San Juan		State: New Mexico
Location: Farmington WWTP		
Subject: Influent Air Scrubber System - An innovative use of water and biological filtration.		

NMED/SWQB Official Photograph Log Photo # 5		
Photographer: B. Cooney	Date: 24 May 2012	Time: 10:23a.m.
City/County: Farmington San Juan		State: New Mexico
Location: Farmington WWTP		
Subject: Covered Trickling Filters.		

NMED/SWQB Official Photograph Log Photo # 6		
Photographer: B. Cooney	Date: 24 May 2012	Time: 10:27 a.m.
City/County: Farmington San Juan		State: New Mexico
Location: Farmington WWTP		
Subject: One of two primary clarifiers		

NMED/SWQB Official Photograph Log Photo # 7		
Photographer: B. Cooney	Date: 24 May 2012	Time:10:32 a.m.
City/County: Farmington San Juan		State: New Mexico
Location: Farmington WWTP		
Subject: Primary clarifier - weirs are level and no evidence of short circuiting occurring.		

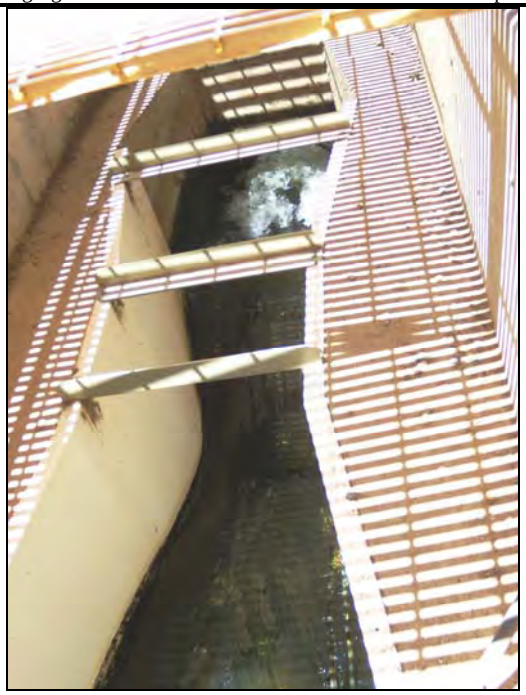
NMED/SWQB Official Photograph Log Photo # 8		
Photographer: B. Cooney	Date: 24 May 2012	Time: 11:09 a.m.
City/County: Farmington San Juan		State: New Mexico
Location: Farmington WWTP		
Subject: Medium Rate Activated Sludge System (MRAS). - the basin has both aerated and non-aerated sections for biological treatment.		

NMED/SWQB Official Photograph Log Photo # 9		
Photographer: B. Cooney	Date: 24 May 2012	Time: 11:20 a.m.
City/County: Farmington San Juan		State: New Mexico
Location: Farmington WWTP		
Subject: Secondary Clarifier past the MRAS system shows signs of floating solids within the basin and algae on the weirs. It was scheduled for weekly cleaning the following day.		

NMED/SWQB Official Photograph Log Photo # 10		
Photographer: B. Cooney	Date: 24 May 2012	Time: 11:47 a.m.
City/County: Farmington San Juan		State: New Mexico
Location: Farmington WWTP		
Subject: Secondary Clarifier that receives water from the trickling filters - note the clear decant free of floating solids.		

NMED/SWQB Official Photograph Log Photo # 11		
Photographer: B. Cooney	Date: 24 May 2012	Time: 11:35 a.m.
City/County: Farmington San Juan		State: New Mexico
Location: Farmington WWTP		
Subject: The Chlorine Contact Chamber is covered to prevent excess growth of algae. It is important however that the basins are cleaned on a regular basis to remover any other solids that make it past the secondary clarifiers.		

NMED/SWQB Official Photograph Log Photo # 12		
Photographer: B. Cooney	Date: 24 May 2012	Time: 11:42 a.m.
City/County: Farmington San Juan		State: New Mexico
Location: Farmington WWTP		
Subject: Effluent Channel with Parshall Flume - Staff gauge and ultrasonic flow meter. This is where effluent samples are taken for NPDES monitoring.		



NMED/SWQB Official Photograph Log Photo # 13		
Photographer: B. Cooney	Date: 24 May 2012	Time: 12:55 p.m.
City/County: Farmington San Juan		State: New Mexico
Location: Farmington WWTP		
Subject: Sludge Drying Beds are cement basins with under drains that send the water back to the head of the WWTP.