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## NEW MEXICO ENVIRONMENT DEPARTMENT

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RYAN FLYNN  
Cabinet Secretary

BUTCH TONGATE  
Deputy Secretary

### Certified Mail - Return Receipt Requested

September 23, 2014

Mr. David Fuqua  
City Manager  
City of Bloomfield  
915 First N. First Street  
P.O. Box 1839  
Bloomfield, NM 87413

Re: Major Municipal; SIC 4952; Compliance Evaluation Inspection; Bloomfield Wastewater Treatment Plant; NPDES Permit No. NM0020770; August 14, 2014

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

City of Bloomfield  
September 23, 2014  
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If you have any questions about this inspection report, please contact Barbara Cooney at (505) 827-0212 or at [barbara.cooney@state.nm.us](mailto: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



### 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   7   7   0   11   12   1   4   0   8   2   2   17   18   C   19   S   20   1					
Remarks					
B   L   O   O   M   F   I   E   L   D   W   W   T   P   M   A   J   O   R   M   U   N   I   C   I   P					
Inspection Work Days	Facility Evaluation Rating	BI	QA	-----Reserved-----	
67       1   69	70   2	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) City of Bloomfield WWTP – Location: 1176 Church Street- From Bernalillo take State Hwy 550 north to Bloomfield, at the intersection of SH 550 and SH 64 turn left (west) go to Church Street, Turn Left(south) travel aprox. ½ mile to the WWTP.  San Juan County, New Mexico	Entry Time /Date 09:55 Hours / August 14, 2014	Permit Effective Date September 1, 2009
	Exit Time/Date 17:00 Hours/ August 14, 2014	Permit Expiration Date August 31, 2014
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) David Sonnenberg –Operations Superintendent (505) 632-0776, (505) 632-8475 or (505) 820-7182	Other Facility Data  SIC: 4952  Latitude- North 36° 43'42" Longitude- West 107° 57'00"	
Name, Address of Responsible Official/Title/Phone and Fax Number David Fuqua – City Manager, 505-632-6302 / Fax 505-632-6310 915 North First Street P.O. Box 1839 Bloomfield, NM 87413	Contacted Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

#### Section C: Areas Evaluated During Inspection

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

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

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

See Further Explanations Section of the Report For Details.

Name(s) and Signature(s) of Inspector(s) /S/ Barbara Cooney	Agency/Office/Telephone/Fax NMED/SWQB 505-827-0212	Date 23 Sept 2014
Signature of Management QA Reviewer /S/ Bruce Yurdin	Agency/Office/Phone and Fax Numbers NMED/SWQB 505-827-2795	Date 9/23/2014

## SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS  
DETAILS:

S  M  U  NA (FURTHER EXPLANATION ATTACHED NO )

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.  
DETAILS: Errors on Daily Flow Records July 2013

S  M  U  NA (FURTHER EXPLANATION ATTACHED NO )

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.  
DETAILS:

S  M  U  NA (FURTHER EXPLANATION ATTACHED YES )

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  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: Not evaluated.

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED.  Y  N  NA  
 TYPE OF DEVICE

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 YES)  
 DETAILS: Possible disinfectant contamination of bacteria samples.

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

**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. Possible Contamination of Bacteria Samples with aerosol disinfectant.

 S  M  U  NA5. DUPLICATE SAMPLES ARE ANALYZED. 10 % OF THE TIME. Y  N  NA6. SPIKED SAMPLES ARE ANALYZED. 10 % OF THE TIME. Spike samples analyzed as part of the DMR QA study. Y  N  NA

7. COMMERCIAL LABORATORY USED.

 Y  N  NA

LAB NAME                      Huther & Associates  
 LAB ADDRESS                 Denton, TX  
 PARAMETERS PERFORMED    Whole Effluent Toxicity Test

**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
	None	Slight	Slight	None	Yes	Greenish Brown	None

RECEIVING WATER OBSERVATIONS  
 See Attached Further Explanations.

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS.  
 DETAILS:

 S  M  U  NA (FURTHER EXPLANATION ATTACHED YES ).1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. Not enough capacity in drying beds to handle solids produced  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

City of Bloomfield WWTP  
NPDES Permit Number NM0020770  
Compliance Evaluation Inspection  
14 August 2014  
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### **Introduction**

A Compliance Evaluation Inspection (CEI) was conducted at the City of Bloomfield Wastewater Treatment Plant (WWTP) by Ms. Barbara Cooney of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) on 14 August 2014. 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 NM0020770. The Standard Industrial Classification Code (SIC) is 4952. The facility discharges into the San Juan River in water quality segment 20.6.4.408 of the San Juan 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 arrived at the Bloomfield WWTP at 09:55 hours. There were no personnel present at the facility and no one answered when the inspector called the contact numbers. The inspector then went to City Hall and found Mr. David Sonnenberg, Operations Superintendent. The Inspector made introductions, showed her credentials and explained the purpose of her visit. Mr. Sonnenberg then accompanied Ms. Cooney as she toured the WWTP and the laboratory. Additionally they went to a lift station that is part of the collection system. Ms. Cooney was provided at her request all records of plant and laboratory activity for the month of June 2014 for a records review. An exit interview was held with Mr. Sonnenberg and Mr. David Fuqua City Manager at City Hall following the inspection. The inspector left the city facilities at 17:00 hours.

### **Treatment Scheme**

The Bloomfield WWTP is designed to treat 0.9 MGD. The collection system is estimated to be 148 miles long and services a population of approximately 7800 people. The head works of the WWTP were upgraded in 2005. Influent flow is measured with Parshall flume with a staff gauge and an ultrasonic flow meter that totalizes the flow. The head works has split channels, one is to a manual bar screen, the other to the mechanical grit and solids removal system including a screw pump. The channels converge at an aerated grit chamber. The manual bar screen channel is a back up and was not being used at the time of the inspection. From the aerated grit chamber three sump pumps lift the influent water to the aeration basins. The sump pumps are run on rotation. One pump is rested at a time.

The two aeration basins are run in parallel. The square basins are above ground because of the high water table. Aeration is accomplished with surface aerators that sit approximately four feet deep in the basins. They create a great deal of turbulence at the surface of the basins. Due to the surface location of the aerators and the square shape of the basins, aeration is not efficient and

City of Bloomfield WWTP  
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14 August 2014  
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evenly distributed throughout the basins. It is likely that solids build up and become septic in the bottom corners of the basins. The basins color was a light brown, indicating older microbes and solids that are less efficient at aerobic treatment. From the aeration basins, decant is sent to the two secondary round clarifiers (run in parallel), then to the square serpentine chlorine contact chamber. Dechlorination follows that process and the effluent flows through a Parshall flume with a fixed staff gauge, and an ultrasonic flow meter reads the discharge volume. This is the sampling location for the NPDES permit. The flow then goes to the San Juan River through an enclosed pipe that is approximately 1/8 mile in length.

### **Sludge**

According to the operator, solids are wasted from the secondary clarifiers to an open air chamber identified as the aerobic digester / solids thickener. The aerobic digester was not being aerated at the time of the inspection. The contents of the chamber were visibly anaerobic with a light brown - grey color. A fair amount of bubbling was occurring and the sulfurs odor being emitted by the contents of the basin was noticeable from well outside the treatment plant boundaries. Decant from the digester / solids thickener is sent back to the head works where it mixes with the raw influent. From the digester / solids thickener, solids are sent to the belt press, then hauled to the sludge drying beds. Final disposal of solids is to a surface disposal site at the Bondad landfill in Colorado. The sludge drying beds have under drains that direct liquids back to the head of the plant.

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 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”**

### **Section B – Record Keeping and Reporting – Overall Rating of “Satisfactory”**

#### **Permit Requirements For Record Keeping and Reporting**

The permit requires in Part III.3. C. MONITORING AND RECORDS

##### *4. RECORD CONTENTS*

*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 time(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 for June 2014 were reviewed. No adverse findings were found.

**Section C - Operation and Maintenance – Overall Rating of “Unsatisfactory”**

**Permit Requirements For Operation and Maintenance**

The permit requires in Part III.3. PROPER OPERATIONS AND MAINTENANCE:

*a. The permittee shall properly and maintain all facilities and systems of treatment and control (and 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 operations 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 facility design problems were observed during this inspection. Most of these are repeat findings.

1. Aeration Basins - The parallel aeration basins have surface aerators that mix approximately the top six feet of the chambers. The paddles cause a great deal of turbulence and frequent splash over. Regardless of the highly turbulent surface these aerators create, the lower 2/3 of each basin does not receive adequate and reliable aeration and mixing, causing anoxic and potentially even septic conditions. **(This is a repeat finding)**
2. The solids wasting from the aeration basins and from the secondary clarifiers has been increased significantly from the time of the last NMED inspection in August 2013. This is an improvement.
3. Secondary Clarifiers -The surface skimmer is worn and is not aligned correctly. It is pushing floating solids over the weirs and to the chlorine contact chamber.
4. Concrete cracks - This WWTP was built in 1978. New head works were built and put on line approximately 6 years ago. Throughout the WWTP there are indications of failing concrete, including cracks throughout all the treatment units including the secondary clarifiers. Inside the basins the concrete is pitted and crumbling from the many years of exposure to the caustic wastewater. Structural rebar is visible through the deteriorating treatment units. Metal parts and water works are showing signs of rusting throughout. The facility has contracted with a concrete specialist to evaluate the condition. **(This is a repeat finding)**
5. Aging treatment units and obsolete treatment units - The motors for the aeration basin paddle aerators are heavily worn, rusting and leaking oil. **(This is a repeat finding)**

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6. Effluent color was slightly turbid green - The effluent color was indicative of ineffective treatment throughout the WWTP. The color of the effluent was similar to what is commonly found in trickling filter processes. Activated sludge sewage treatment should be able to produce a much more clear effluent than was observed at this facility. **(This is a repeat finding)**

7. Chlorine Contact Chamber - The serpentine chlorine contact chambers were very turbid. Floating solids were observed in the chamber. Operators have installed a surface baffle to catch floating solids before they reach the effluent discharge point. However because floating solids are visible throughout the water column, the surface baffles are only partially effective at removing all of it. **(This is a repeat finding)**

8. At the time of the inspection, there were only two operators including the supervisor for this facility. Staff had retired or for other reasons had left. Hiring additional trained staff is mandatory to operate a wastewater treatment plant of this size. Trained operators are also necessary to meet the sampling and laboratory analysis requirements in the NPDES permit.

**Section D – Self Monitoring – Overall Rating of “Satisfactory”**

**Section E – Flow Measurements – Overall Rating of “Satisfactory”**

**Section F - Laboratory - Overall Rating of "Marginal"**

**Permit Requirements For Laboratory**

The permit requires in Part III. C. MONITORING AND RECORDS

*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**

1. The laboratory analyst was using an aerosol disinfectant prior to setting up the bacterial tests. There is a possibility for the aerosolized cleaner to settle on the petri dishes even several minutes after the spray was used. This could result in unintended disinfection of the samples, giving an artificially low result. It is suggested that laboratory analyst use a different disinfection process before and after analysis.

The laboratory analyst discontinued this practice following the inspection according to information he provide the inspector over the phone following the inspection.

2. The laboratory analyst was filtering the chlorine sample before running the test. This step is not part of the approved methods.

**Section G - Effluent and Receiving Water - Overall Rating "Marginal"**

City of Bloomfield WWTP  
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**Permit Requirements For Effluent and Receiving Water**

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

**2. FLOATING SOLIDS, VISIBLE FOAM AND/OR OILS**

*a. There shall be no discharge of floating solids or visible foam in other than trace amounts.*

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

Effluent Characteristics	Lbs/day, unless noted				Mg/L, unless noted			Monitoring Requirements	
	30 Day Avg	Daily Max	7Day Avg		30 Day Avg	Daily Max	7 Day Avg	Measuring Frequency	Sample Type
pH						Minimum 6.6 su	Maximum 9.0 su	5/Week	Grab
Flow		Report MGD	Report MGD		Report MGD	NA	NA	Continuous	Totalizing Meter
BOD 5-day	225	NA	338		30	NA	45	Two/Week	24 Hour Composite
TSS	225	NA	338		30	NA	45		24 Hour Composite
E. coli Bacteria	NA	4.30 x 10 <sup>9</sup> (*3)	NA		126 cfu	126 cfu	NA	Five/Week	Grab
Total Residual Chlorine	NA	NA	NA		NA	19 µg/l	NA	Daily	Grab
Total Dissolved Solids Net Increase	22264	NA	NA		400	NA	NA	1/Quarter	3 Hour Composite

\*3 Conversion factor to determine loading limit is 3.79 x 10<sup>7</sup> x Flow in MGD x cfu/100 ml in effluent.

**Findings For Effluent and Receiving Water:**

1. The effluent from the WWTP was slightly turbid green-brown at the time of the inspection. There were small amounts of floating solids noted in the chlorine contact chamber and in the effluent at the Parshall Flume. The presence of floating solids is reason for the "Marginal" rating.
2. There were no effluent exceedences reported for the last 12 months.

**Section H - Sludge Disposal - Overall Rating of "Satisfactory"**

MED/SWQB  
Official Photograph Log  
Photo # 1

Photographer: B. Cooney

Date: 14 August 2014

Time: 15:30 Hours

City/County: Bloomfield / San Juan County

State: New Mexico

Location: Bloomfield Wastewater Treatment Plant

Subject: Concrete cracking on the outside of a secondary clarifier is indicative of the condition throughout the WWTP.



NMED/SWQB  
Official Photograph Log  
Photo # 2

Photographer: B. Cooney

Date: 14 August 2014

Time: 15:30 Hours

City/County: Bloomfield / San Juan County

State: New Mexico

Location: Bloomfield Wastewater Treatment Plant

Subject: More concrete cracking on the outside of a secondary clarifier is indicative of the condition throughout the WWTP.



NMED/SWQB  
Official Photograph Log  
Photo # 3

Photographer: B. Cooney

Date: 14 August 2014

Time: 11:13 Hours

City/County: Bloomfield / San Juan County

State: New Mexico

Location: Bloomfield Wastewater Treatment Plant

Subject: The chlorine contact chamber has floating solids and suspended solids entering the treatment unit from the secondary clarifiers.



NMED/SWQB  
Official Photograph Log  
Photo # 4

Photographer: B. Cooney

Date: 14 August 2014

Time: 11:13 Hours

City/County: Bloomfield / San Juan County

State: New Mexico

Location: Bloomfield Wastewater Treatment Plant

Subject: The chlorine contact chamber has surface baffles in place to capture some of the floating solids before being sent to de-chlorination and to the outfall. However suspended solids are noted throughout the water column. It is suggested additional screening be installed and the sweeper arms of the secondary clarifiers be adjusted to capture more solids.



NMED/SWQB  
Official Photograph Log  
Photo #5

Photographer: B. Cooney

Date: 14 August 2014

Time: 14:14 Hours

City/County: Bloomfield / San Juan County

State: New Mexico

Location: Bloomfield Wastewater Treatment Plant

Subject: The aeration basins have severely pitted concrete.



NMED/SWQB  
Official Photograph Log  
Photo # 6

Photographer: B. Cooney

Date: 14 August 2014

Time: 14:13 Hours

City/County: Bloomfield / San Juan County

State: New Mexico

Location: Bloomfield Wastewater Treatment Plant

Subject: Motors for the mixers in the aeration basins are very old and worn. Oil leaks are noted around each of the motors.



NMED/SWQB  
Official Photograph Log  
Photo # 7

Photographer: B. Cooney

Date: 14 August 2014

Time: 15:29 Hours

City/County: Bloomfield / San Juan County

State: New Mexico

Location: Bloomfield Wastewater Treatment Plant

Subject: Secondary Clarifier, a small amount of algae is noted at the base of the weirs though not excessive. The sweeper arm of the clarifier is actually pushing some of the floating solids over the weirs and to the chlorine contact chamber.



NMED/SWQB  
Official Photograph Log  
Photo # 8

Photographer: B. Cooney

Date: 14 August 2014

Time: 11:17 Hours

City/County: Bloomfield / San Juan County

State: New Mexico

Location: Bloomfield Wastewater Treatment Plant

Subject: Effluent at the Parshall Flume and staff gauge has a deeper greenish colored tint than is typically present for a conventional activated sludge treatment plant, based on the observations of the inspector.

