



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

August 30, 2012

Mr. Don Levinski
Superintendent
Central Consolidated School District
P.O. Box 1199
Shiprock, NM 87420

Re: **Minor Non-Municipal; SIC 4952; NPDES Compliance Evaluation Inspection; Central Consolidated Schools Wastewater Treatment Plant; NM0029319; August 01, 2012**

Dear Mr. Levinski:

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.

My thanks to you for the cooperation of the Central Consolidated School District representatives including Ms. Cindy Smith, Mr. Dennis Fieldstead and Mr. George McFall.

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:
Rashida Bowlin, USEPA (6EN-AS) by e-mail
Carol Peters, 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
Darlene Whitten-Hill, (6EN-WC), 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 9 3 1 9 11 12 1 2 0 8 0 1 17 18 C 19 S 20 2					
Remarks					
C E N T R A L C O N O L I D A T E D S C H O O L S					
Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	
67 O O 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) Central Consolidated Schools District No. 22 WWTP for schools and admin. Offices in Kirtland off County Rd. 6100, Kirtland, San Juan County, New Mexico 87417	Entry Time /Date 1300 / August 1, 2012	Permit Effective Date March 1, 2006
	Exit Time/Date 1700 / August 1, 2012	Permit Expiration Date February 28, 2011
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Mr. Dennis Fieldstead, Director of Construction, 505-793-6407 Mr. George McFall, Maintenance Supervisor 505-368-5105 Fax 505-368-4990 Cindy Smith, Operator 505-320-4149	Other Facility Data Latitude N 36° 43' 53.50" Longitude W108° 22' 07.35 SIC 4952	
Name, Address of Responsible Official/Title/Phone and Fax Number Mr. Don Levinski, Superintendent 505-386-4984 fax:505-368-4990 P.O. Box 3049 Shiprock, NM 87420	Contacted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

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	U	Sludge Handling/Disposal		Pollution Prevention
U	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
U	Effluent/Receiving Waters	S	Laboratory	N	Storm Water		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) <i>/s/ Barbara Cooney</i> Barbara Cooney	Agency/Office/Telephone/Fax NMED/SWQB 505-827-0212 / Fax 5505-827-0160	Date <i>August 30, 2012</i>
Signature of Management QA Reviewer <i>/s/ Richard Powell</i> Richard Powell	Agency/Office/Phone and Fax Numbers NMED/SWQB 505-827-0187 / Fax 5505-827-0160	Date <i>August 30, 2012</i>

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS

 S M U NA (FURTHER EXPLANATION ATTACHED NO)

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 YES)

DETAILS:

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.

 Y N NA

2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. The units of the sample results are not recorded on the bench sheets for TRC DMRs were not received for the month of February 2012.

 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:

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?
 IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?
 HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?

Y N NA
 Y N NA
 Y N NA

10. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?
 IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?

Y N NA
 Y N NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS.
 DETAILS:

S M U NA (FURTHER EXPLANATION ATTACHED YES)

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. pH, Flow & TRC taken more frequently except when the
 Head Operator went on vacation - no samples taken - no back up operator

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.
 DETAILS:

S M U NA (FURTHER EXPLANATION ATTACHED YES)

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 6/10/2011)
 RECORDS MAINTAINED OF CALIBRATION PROCEDURES.
 CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.

Y N NA
 Y N NA
 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.
 DETAILS:

S M U NA (FURTHER EXPLANATION ATTACHED YES)

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. S M U NA
5. DUPLICATE SAMPLES ARE ANALYZED. 10 % OF THE TIME. Y N NA
6. SPIKED SAMPLES ARE ANALYZED. % OF THE TIME. NOT EVALUATED Y N NA
7. COMMERCIAL LABORATORY USED. Y N NA

LAB NAME Farmington WWTP / CH2M- OMILAB ADDRESS Farmington, NMPARAMETERS PERFORMED Fecal Coliform, E. coli, BOD, TSS**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	Yes	No	Yes	Turbid Brown	Large solid debris at outfall

RECEIVING WATER OBSERVATIONS Due to the discharge pumping cycles, the plant was not discharging at the time of the inspection. The effluent was not observed directly. Photos were provided by the operator of effluent quality during the six months prior to the inspection. The Unsatisfactory ratings are based in part on photographs, the debris at the outfall and the effluent exceedences.

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. S M U NA (FURTHER EXPLANATION ATTACHED YES).

DETAILS: Sludge not wasted often enough to maintain effluent quality. Solids could not be disposed of at the Farmington WWTP because high metal concentrations. Instead solids are being stored at the elementary school lagoons.

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 Central Consolidated Schools Wastewater Treatment Plant (WWTP) by Ms. Barbara Cooney of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) on August 1, 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.

The facility is a minor industrial discharger under the Federal Clean Water (CWA), section 402 National Pollutant Discharge Elimination System (NPDES) permit program and is assigned NPDES permit number NM0029319. The Standard Industrial Classification Code (SIC) is 4952. The discharge from the WWTP enters the San Juan River in water quality segment 20.6.4.401 of the San Juan River Basin. The designated uses of the receiving water 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 Central Consolidated School District Wastewater Treatment Plant at 1300 hours on August 1, 2012. The inspector showed her credentials and discussed the purpose of the inspection with Ms. Cindy Smith, Plant Operator. An exit interview was held with, Mr. Dennis Fieldstead, Director of Construction and Maintenance, and Mr. George McFall, Maintenance Supervisor following the inspection. The inspector left the facility at 1700 hours.

Treatment Units

The City of Farmington WWTP NPDES permit number NM0020583 has extended the collection system to the town of Kirtland, New Mexico. The Central Consolidated Schools is in the process of working with contractors and the City of Farmington to lay 6 inch diameter sewer lines to connect with the Farmington system (see attached photos). The anticipated schedule for completion of the connection and to begin sending waste to Farmington is the end of September 2012.

The existing WWTP will be decommissioned and will be demolished upon connection to the Farmington system. The remaining solids waste in the existing plant will need to be removed and disposed of in accordance with the NPDES permit and 40 CFR. Part 503 regulations. Demolition will necessitate coverage under the NPDES Storm Water General Permit (Construction Activities) if one acre or more of land is affected, that includes, all equipment storage, and temporary debris storage. Information on the

Construction General permit may be found at:
<http://www.nmenv.state.nm.us/swqb/permits/>

This WWTP services the Kirtland school district, junior and high schools and the administrative offices. The elementary school waste is sent to a lined total retention lagoon. The design capacity of the WWTP is 0.05 Million Gallons Per Day (MGD). Raw influent flows to a lift station with no bar screen nor any large solids removal mechanism. The raw sewage is then sent approximately ¼ mile to the WWTP. The WWTP is a fully enclosed Schreiber Process treatment system for activated sludge. The wastewater enters the treatment plant consisting of three circular, concentric chambers. The central, inner ring functions as the primary clarifier and the second, larger ring serves as both an aeration basin and secondary clarifier. The outer ring is used primarily as an overflow holding tank. The influent raw sewage enters the treatment plant through a center baffle where some solids settle out. Because there is no bar screen, large rags and larger solids tend to wrap around the rotation arms in the treatment units. From the center ring, wastewater decants into the larger second chamber that contains two sets of air diffusers. The two banks of diffusers are mounted on a rotating bridge. The treatment process is automated for the aeration, mixing and clarification cycles. At the end of the clarification portion of the cycle, decant is sent to the disinfection system.

A short distance from the enclosed plant is a small building situated over an opening in the effluent pipe where a chlorine dosing system is located. The chlorine treatment is a liquid drip system using Sodium Hypochlorite (see attached photo). The dosing is flow controlled. Effluent continuous flow is recorded by an inline mag-meter. Influent flow is also monitored the same way. Following chlorination the effluent gravity flows through an enclosed pipe approximately ¼ mile allowing mixing and disinfection. Dechlorination is done with Sodium Sulfite delivered by a drip dosing system. A small building houses the dechlorination system and is where field sample parameters are analyzed. Samples are taken from a manhole just a few feet from the building.

From this point the effluent continues to flow through the enclosed pipe approximately ¼ mile to the discharge point, a secondary channel of the San Juan River. At the outfall, a wire screen that was intended to catch large solids, preventing them from being discharged has fallen to the wayside. Large solids are allowed to be discharged to the river.

Sludge

The sludge is removed through a set of valves at the exterior of the plant by a vactor truck. The solids can be removed from any of the three chambers in the plant. The Solids would normally be processed at the Farmington WWTP; however the test results for metals content were too high to be accepted at a domestic WWTP this spring. The solids are being sent to the lagoon at the elementary school until another more suitable location is found.

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.

Recordkeeping and Reporting

Permit Requirements For Monitoring And Reporting in Part I. Section C.

MONITORING AND REPORTING:

1. 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 Report 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.

Permit Requirements For Monitoring And Records in Part III. Section 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 Recordkeeping and Reporting

1. No Discharge Monitoring Reports (DMRs) were received for February 2012.

DMR reporting: The facility was approved to use the electronic NetDMR reporting system April 19, 2011.

2. A records review was conducted for the period April, May and June 2012.

Total Residual Chlorine records - no units were recorded with the results. The records appeared to be recorded in mg/L and were likewise reported on the DMRs as mg/L. Noted in the section below for Effluent and Receiving waters, the permit requires a Daily Maximum for Total Residual Chlorine concentrations of 19 µg/L. It is important to record the units along with the sample results to avoid any confusion when converting mg/L to µg/L.

Operation and Maintenance

Permit Requirements For Operation and Maintenance

The permit requires 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.*
- b. 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.*

Findings For Operation and Maintenance

1. The outfall pipe on previous inspections had a wire basket in place to catch any large solids being discharged from the facility. At the time of this inspection the wire basket has fallen to the rocks below the outfall pipe and appeared to have been there for a considerable amount of time. There were numerous items that littered the ground at the outfall location including plastic hygiene applicators, rags and other debris.
2. There is no solids removal at the main lift station or at the head of the WWTP. There are problems with mop heads and other large solids that wrap around the rotating bridge, aerators, mixers, pumps. The presence of these kinds of solids can strain and interfere with the operations of the treatment units, causing added wear and tear. Also, because of the enclosed design of the treatment plant, it is very difficult for Operators to remove these solids once they enter the WWTP.
3. There is no alarm system for the lift station, or for the WWTP in the event of power failure.
4. There is no on-site back up power at the WWTP or at the lift station.
5. There are no written Standard Operating Procedures (SOPs).
6. The automation system that controls the cycling of aeration, settling, and clarification failed the week following the inspection when the operator was on vacation. There were no back up personnel who check the WWTP during that time and untreated sewage was discharged to the river.

7. Chlorination and de-chlorination systems are poorly maintained. The Chlorine (see photos) is stored in 50 gallon drums; the pump is attached to a 1/4 inch tube stuck into a 4 inch opening of the drum. There is no other covering for the 4inch opening. The tubes were heavily coated with dried chlorine salts. The tubes should be cleaned or replaced. The 4 inch opening should be covered and sealed around the tubing. Chlorine salts were splattered all over the wall, floor and drum. The chlorine vapors were extremely strong in the building. The same conditions were also found with the de-chlorination System.

8. Three new lift stations that will be used to transport the raw wastewater from the schools and the administrative offices to the collection system for the Farmington WWTP must be installed with visible alarm systems; should have backup power; and should be designed to handle large solids by either screening or grinder system. When asked about the new lift stations that will be used once the system is connected to the Farmington WWTP collection lines, CCS representatives were uncertain who would be responsible for the lift station maintenance and operation. That detail should be worked out before decommission of the current WWTP and transferring over to the collection system.

9. Numerous overflows from the lift station in front of the junior high school have occurred. These failures have resulted in raw sewage flowing across the road, into a storm drain, to a holding pond, past houses and a residential area and potentially to the San Juan River. No preventive measures have been taken to stop future overflows. Debris on the ground near the lift station shows dried sewage solids (see attached photo).

10. A full WWTP failure was reported to have occurred during the period of August 3, 2012 through August 13, 2012. The plant operator was on vacation and no backup staff were on site at the WWTP. An unknown amount of untreated wastewater was discharged to the San Juan River.

11. There is no back up operator at this site.

Flow Measurement

Permit Requirements For Flow Measurement

The permit requires in Part III.C.6.

FLOW MEASUREMENTS:

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

Findings For Flow Measurements

The flow measurement device being used at this facility is an inline electronic flow meter that records continuous flow. There is not back-up weir box or Parshall flume with a staff gauge to check flows. A label on the flow readout box listed the last calibration of the flow meter was done on 6-10-2011.

Self Monitoring

Permit Requirements For Self Monitoring

Note: The format of the requirements below have been changed and adapted from the original table format in the permit.

The permit requires in Part I Section A.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS:

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit (unless otherwise noted), the permittee is authorized to discharge treated municipal wastewater to San Juan River, in Segment Number 20.6.4.401, from outfall number 001.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS DISCHARGE LIMITATIONS

pH

Discharge Limitations: Daily Minimum 6.6 / Daily Maximum 9

Measurement Frequency: Five/Week

Sample Type: Instantaneous Grab

Flow MGD:

Discharge Limitations

30 -Day Avg: Report

Daily Max: Report

7 Day Avg: Report

Measurement Frequency: Daily

Finding For Self Monitoring

The plant operator was on vacation from August 3, 2012 through August 13, 2012. During this time no flow measurements were recorded and no pH measurements were taken.

Laboratory

Permit Requirements For Laboratory

The permit requires in Part III. Section 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.*

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.*
- b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.*
- 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.*

Findings For Laboratory

The permittee uses the Farmington WWTP analytical laboratory operated by CH2MHill for the majority of the laboratory analysis for the effluent samples. These sample records meet the permit requirements. Previous inspections of the OMI laboratory in Farmington have found that laboratory records are complete and meet the requirements of the NPDES permits.

In addition, the permittee's Operator, Ms. Cindy Smith conducts the Total Residual Chlorine, and pH sampling on site. Ms. Smith explained how she collects and analyses samples. The equipment being used was also observed by the inspector.

The inspector reviewed daily logs provided by the permittee for the months of April, May and June 2012.

The daily logs do not include the units of the samples being analyzed for Total Residual Chlorine.

Effluent and Receiving Water

Permit Requirements For Effluent and Receiving Water

Note: A renewed NPDES permit was issued and became effective on August 1, 2012. The period of record being evaluated in this inspection report is before the issuance of the new permit and the effluent requirements listed below reflect the NPDES permit effective March 1, 2006 through July 31, 2012.

The permit requires for effluent and receiving water in Part I are:

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				
	<u>7 Day Avg (lbs/day)</u>	<u>30 Day Avg</u>	<u>7 Day Avg</u>	<u>Daily Max</u>	<u>Daily Minimum</u>
Flow	NA	Report MGD	Report MGD	NA	NA
Biochemical Oxygen Demand (5day)	18.8 lbs/day	30 mg/L	45 mg/L	NA	NA
Total Suspended Solids (mg/L)	18.8 lbs/day	30 mg/L	45 mg/L	NA	NA
Total Dissolved Solids Influent (mg/L)	NA	Report	NA	NA	NA
Total Dissolved Solids Effluent (mg/L)	NA	Report	NA	NA	NA
Fecal Coliform Bacteria (cfu/100ml)	NA	100 cfu/100 ml	NA	200 cfu/100 ml	NA
E coli Bacteria (cfu/100 ml)	NA	126 cfu/100 ml	NA	235 cfu/100 ml	
pH (s.u.)	NA	NA	NA	9.0	6.6
TRC (mg/L)	NA	NA	NA	19 µg/L	NA

Findings For Effluent and Receiving Water

Effluent Exceedences and Missing Monitoring Data Reported on DMRs Since January 2012. These exceedences are list in order from the most recent date back.

DATE	Parameter	Exceedences: Concentration or Loading Value
June 2012	Total Residual Chlorine (TRC) Daily Max	0.03 mg/L (30 µg/L)*
June 2012	E. coli Bacteria 30 Day Avg	720 cfu
June 2012	E. coli Bacteria Daily Max	720 cfu
June 2012	Fecal Coliform 30 Day Avg	281 cfu
June 2012	Fecal Coliform 7 Day Avg	281 cfu
May 2012	Total Residual Chloring (TRC) Daily Max	0.04 mg/L (40 µg/L)*
April 2012	Total Residual Chloring (TRC) Daily Max	0.02 mg/L (20 µg/L)*
April 2012	E. coli Bacteria Daily Max	1081.0 cfu
April 2012	E. coli Bacteria Daily Max	1081.0 cfu
April 2012	Fecal Coliform Bacteria 30 Day Avg	384 cfu
April 2012	Fecal Coliform 7 Day Avg	384 cfu
March 2012	Total Residual Chloring (TRC) Daily Max	0.03 mg/L (30 µg/L)*
January through March 2012	TSS increase >400 mg/L Quarterly	425 mg/L
February 2012	NO Values Reported or DMR	
January 2012	BOD 30 Day Avg	53 mg/L
	BOD 7 Day Avg	53 mg/L

*Note: The permit requires 19 µg/L for Total Residual Chlorine (TRC). 1.0 µg/L is equivalent to 0.001 mg/L. Therefore 19 µg/L is equivalent to 0.019mg/L. The DMR reports show the concentration for TRC in mg/L.

The WWTP was not discharging at the time of the inspection so effluent was not directly observed by the inspector. However the operator showed the inspector photographs of the effluent quality from earlier in the spring before the solids were wasted from the treatment plant. The effluent in those photos was very turbid even opaque with a green brown color and floating solids.

New Mexico Water Quality Survey: San Juan River 2010 ~ Central Consolidated Schools WWTP Outfall

Facility	Sample Date	Total Dis-solved Solids (mg/L)	Total Sus-pended Solids (mg/L)	<i>E. coli</i> (cfu / 100 mL)	Total Residual Chlorine (mg/L)	Ammonia (mg/L)	pH	Nitrate + Nitrite (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Total Phos-phorus (mg/L)
Central Consolidated School District WWTP	17/Mar/2010			5.2		< 0.1	6.9 9	29	1.1	6.07
	14/Apr/2010	786		2		< 0.1	6.9 9	32	0.99	5.82
	11/May/2010		7	4.1		< 0.1	6.9 1	25	1.9	6.12
	16/Jun/2010			< 0.1		< 0.1		30	0.43	6.12
	21/Jul/2010	706		< 0.1		< 0.1	7.0 6	13	0.98	2.04
	18/Aug/2010			> 2419.6		1.61	6.9 7	20	2.5	2.75
	14/Oct/2010	810		28.1		< 0.1	6.9 9	< 0.1	0.73	4.79

**NMED/SWQB
Official Photograph Log
Photo # 1**

Photographer: B. Cooney

Date: 1 August 2012

Time: 13:48

City/County: Kirtland / San Juan

State: New Mexico

Location: Central Consolidated Schools WWTP

Subject: New 6 inch piping being laid from the main lift station in front of the schools to the collection line from the City of Farmington WWTP.

Note: The date and time stamp do not appear on this photo because it was enlarged and cropped to show details, thus the date stamp was cropped out. The original un-cropped photo is available upon request.



**NMED/SWQB
Official Photograph Log
Photo #2**

Photographer: B. Cooney

Date: 1 August 2012

Time: 13:21

City/County: Kirtland / San Juan

State: New Mexico

Location: Central Consolidated Schools WWTP

Subject: Lift Station - ground shows evidence of overflows and dried raw sewage debris.



NMED/SWQB
Official Photograph Log
Photo #3

Photographer: B. Cooney

Date: 1 August 2012

Time: 14:08

City/County: Kirtland / San Juan

State: New Mexico

Location: Central Consolidated Schools WWTP

Subject: 6 inch pipe to be laid for the sewer line connecting to the Farmington WWTP collection system. This pipe is being stored in the parking lot of the high school. Completion of the sewer line is expected to be the end of September 2012.



NMED/SWQB
Official Photograph Log
Photo #4

Photographer: B. Cooney

Date: 1 August 2012

Time: 14:19

City/County: Kirtland / San Juan

State: New Mexico

Location: Central Consolidated Schools WWTP

Subject: The Enclosed WWTP - Schreiber Activated Sludge Treatment System.



**NMED/SWQB
Official Photograph Log
Photo #5**

Photographer: B. Cooney

Date: 1 August 2012

Time: 14:28

City/County: Kirtland / San Juan

State: New Mexico

Location: Central Consolidated Schools WWTP

Subject: The chlorine building.



**NMED/SWQB
Official Photograph Log
Photo # 6**

Photographer: B. Cooney

Date: 1 August 2012

Time: 14:31

City/County: Kirtland / San Juan

State: New Mexico

Location: Central Consolidated Schools WWTP

Subject: Chlorine barrel - Sodium Hypochlorite.

Note: The date and time stamp do not appear on this photo because it was enlarged and cropped to show details, thus the date stamp was cropped out. The original un-cropped photo is available upon request.



NMED/SWQB
Official Photograph Log
Photo # 7

Photographer: B. Cooney

Date: 1 August 2012

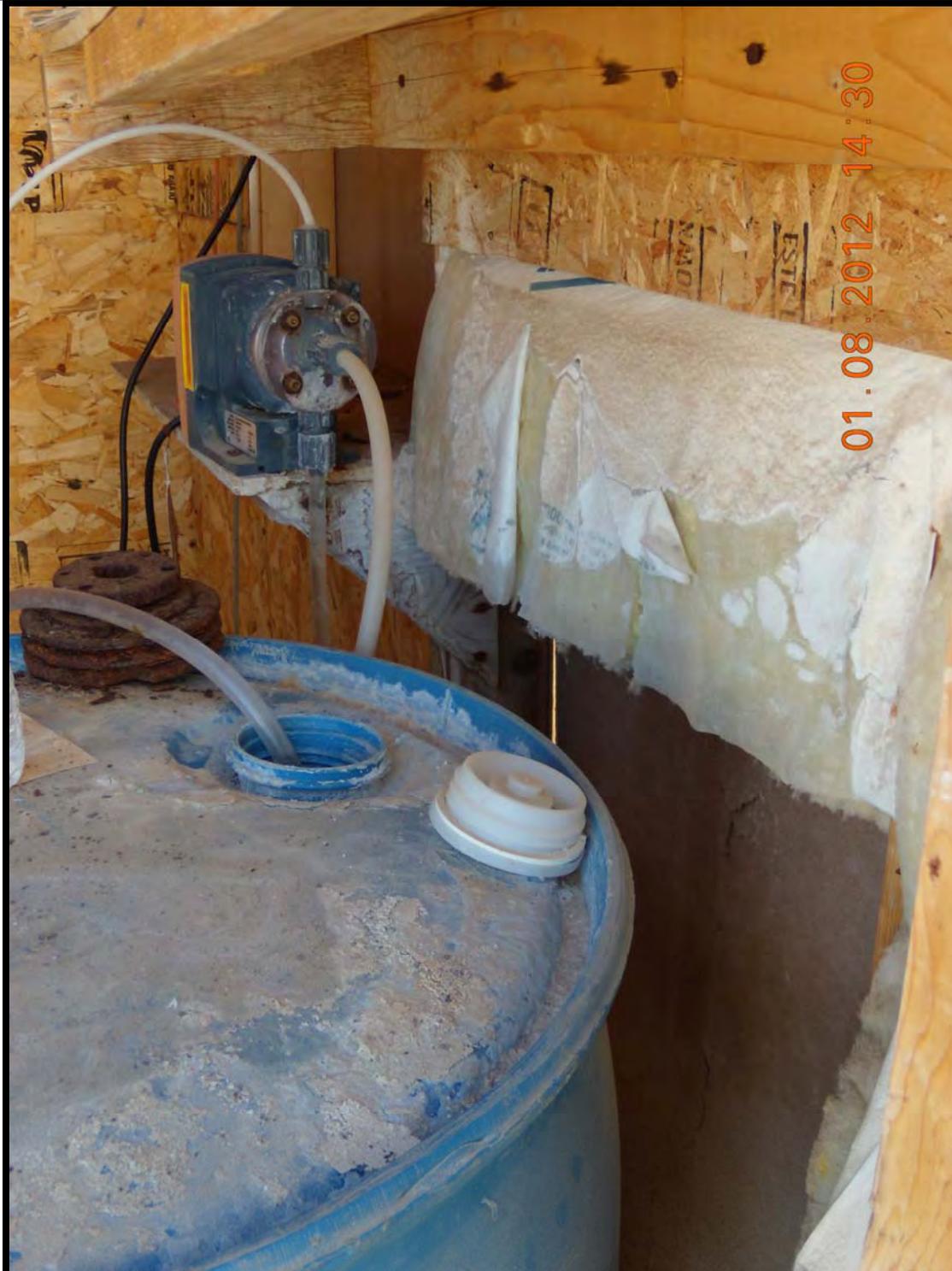
Time: 14:30

City/County: Kirtland / San Juan

State: New Mexico

Location: Central Consolidated Schools WWTP

Subject: Chlorine pumps, tubing, storage container. The container is not sealed and chlorine vapors are leaking, coating the walls. The tubing is caked and coated, not maintained nor clean. There is potential for this to leak to outside of the building. Also, the area is not always kept securely locked posing a potential danger to school children. Strong odors of Chlorine were evident in this storage area.



NMED/SWQB
Official Photograph Log
Photo # 8

Photographer: B. Cooney

Date: 1 August 2012

Time: 14:44

City/County: Kirtland / San Juan

State: New Mexico

Location: Central Consolidated Schools WWTP

Subject: Onsite laboratory and de-chlorination system.



NMED/SWQB
Official Photograph Log
Photo # 9

Photographer: B. Cooney

Date: 1 August 2012

Time: 14:44

City/County: Kirtland / San Juan

State: New Mexico

Location: Central Consolidated Schools WWTP

Subject: De-chlorination is achieved by using Sodium Sulfite. The tubing from the storage tank through the pump to the effluent is not being cleaned and maintained. There is a large amount of splatter coating the barrel and the walls. The poor cleaning and maintenance can result in unreliable dosing volumes. Additionally- like the chlorine storage building there are high amounts of vapors.



NMED/SWQB
Official Photograph Log
Photo # 10

Photographer: B. Cooney

Date: 1 August 2012

Time: 14:45

City/County: Kirtland / San Juan

State: New Mexico

Location: Central Consolidated Schools WWTP

Subject: The De-chlorination system is leaking, coating the ground and walls and the other equipment. It is possible for this to leak out of the building to bare ground. Note the stains on the floor and coated equipment box.



NMED/SWQB
Official Photograph Log
Photo # 11

Photographer: B. Cooney

Date: 1 August 2012

Time: 13:48

City/County: Kirtland / San Juan

State: New Mexico

Location: Central Consolidated Schools WWTP

Subject: Plastic and solid debris, trash that has gone through the WWTP to the outfall. The wire basket intended to catch solids has not been maintained. Large solids are being discharged to the San Juan River.

