NEW MEXICO
ENVIRONMENT DEPARTMENT

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Governor

JOHN A. SANCHEZ
Lieutenant Governor

RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

Certified Mail - Return Receipt Requested

March 19, 2015

Mr. Juan Fuentes, City Manager
City of Truth or Consequences
505 Sims Road
Truth or Consequences, NM 87901

RE: Major Municipal, SIC 4952, NPDES Compliance Evaluation Inspection, Truth or Consequences Wastewater Treatment Plant, NM0020681, February 25, 2015

Dear Mr. Fuentes:

Enclosed please find a copy of the report and check list 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 modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

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

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

If you have any questions about this inspection report, please contact Shelly Lemon at (505) 827-2819 or at shelly.lemon@state.nm.us.

Sincerely,

/s/ Bruce 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
Mike Kesler, NMED District III by e-mail

EPA

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

NPDES Compliance Inspection Report

Section A: National Data System Coding

1	Transaction Code	2	3	NPDES	11	12	yr/mo/day	17	18	Inspec. Type	19	Inspector	20	Fac Type
	N	5	N	NM0020861			150225			C		S		1

Remarks: MAJOR MUNICIPAL WWTP

67	Inspection Work Days	69	70	Facility Evaluation Rating	71	BI	72	QA	73	74	75	Reserved	80
	001		3			N		N					

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*

TRUTH OR CONSEQUENCES WASTEWATER TREATMENT PLANT:
From I-25, take the Williamsburg Exit (Exit 75) and follow Broadway St. Turn right on Hyde Ave. and right on Veater St. Plant entrance is on the right.

SIERRA COUNTY

Entry Time /Date
February 25, 2015
9:15 am

Permit Effective Date
March 1, 2009

Exit Time/Date
February 25, 2015
11:00 am

Permit Expiration Date
February 28, 2014

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

JESUS SALAYANDIA, WASTEWATER DIVISION DIRECTOR (575) 894-7331
JERRY BONNER, OPERATOR, LAB MANAGER (575) 740-5272

Other Facility Data

GPS:

N 33° 06' 49.66"
W -107° 16' 54.64"

SIC 4952

Name, Address of Responsible Official/Title/Phone and Fax Number

MR. JUAN FUENTES, CITY MANAGER (575) 894-6673
505 SIMS STREET
TRUTH OR CONSEQUENCES, NM 87901

Contacted: Yes [ ] No [X]

Section C: Areas Evaluated During Inspection

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

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

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

PLEASE SEE REPORT FOR FURTHER EXPLANATIONS.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
MICHELLE LEMON */s/ Michelle Lemon*	NMED/SWQB 505-827-2819	*3-19-2015*
Signature of Management QA Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date**
BRUCE YURDIN, PROGRAM MANAGER */s/ Bruce Yurdin*	NMED/SWQB 505-827-2795	*3-19-2015*

Truth or Consequences Wastewater Treatment Plant	PERMIT NO. NM0020681

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 **PERMIT HAS BEEN ADMINISTRATIVELY EXTENDED FOR ALMOST A YEAR**	☒ Y ☐ N ☐ NA

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

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

Truth or Consequences Wastewater Treatment Plant	PERMIT NO. NM0020681

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:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED.	☒ Y ☐ N ☐ NA
TYPE OF DEVICE: **9-inch Parshall Flume**	
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* 08/2014)	☒ Y ☐ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES.	☒ Y ☐ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.	☒ Y ☐ N ☐ NA
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.	☒ Y ☐ N ☐ NA
6. HEAD MEASURED AT PROPER LOCATION.	☒ Y ☐ N ☐ NA
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.	☒ Y ☐ N ☐ NA

SECTION F – LABORATORY

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

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

Truth or Consequences Wastewater Treatment Plant	PERMIT NO. NM0020681

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

LAB NAME	WILKINS ENVIRONMENTAL	INTERLAB – GRACIE
LAB ADDRESS	832 NW 67TH STREET #1; OKLAHOMA CITY, OK; 73116	3655 S. RESEARCH DR, GENESIS B; LAS CRUCES, NM; 88003
PARAMETERS PERFORMED	WHOLE EFFLUENT TOXICITY	COPPER

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

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	NONE	NONE	NONE	NONE	NONE	CLEAR	

RECEIVING WATER OBSERVATIONS: **SEVERAL PH EXCURSIONS (LESS THAN 6.6 MINIMUM) – August 2011, November 2012, August 2014, September 2014**
E.COLI LIMITS MAY BE MORE STRINGENT IN NEXT PERMIT TO PROTECT PRIMARY CONTACT RECREATION

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: __AGRICULTURAL; MUNICIPAL PARKS__ (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 NATURE 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

Compliance Evaluation Inspection
Truth or Consequences Wastewater Treatment Plant
NPDES Permit No. NM0020681
February 25, 2015

Introduction

On February 25, 2015, Shelly Lemon of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Truth or Consequences (T or C) Wastewater Treatment Plant (WWTP). The T or C WWTP has a design flow capacity of 1.06 million gallons per day (MGD) and is classified as a major municipal discharger under the federal Clean Water Act, Section 402, of the National Pollutant Discharge Elimination System (NPDES) permit program. It is assigned NPDES permit number NM0020681. This permit regulates the WWTP discharge to the Rio Grande in Water Quality Segment 20.6.4.103 of the New Mexico Administrative Code (NMAC). This segment includes the designated uses of irrigation, livestock watering, wildlife habitat, marginal coldwater aquatic life, secondary contact, and warmwater aquatic life. Flow in this reach of the Rio Grande main stem is dependent upon releases from Elephant Butte Dam.

The NMED performs a certain number of inspections for the U.S. Environmental Protection Agency (USEPA), Region VI, under the NPDES permit program, in accordance with the federal Clean Water Act. USEPA uses these inspections to determine compliance with the NPDES permit program. This inspection report is based on information provided by the permittee's representatives, observations made by NMED staff, and records and reports kept by the permittee and/or NMED.

Upon arrival at the facility, the inspector made introductions, stated the purpose of the inspection and presented credentials to Mr. Jesus Salayandia, Wastewater Division Director, and Ms. Tracy Burnette, Administrative Assistant. The inspector, Mr. Salayandia, and Ms. Burnette toured the facility. At the end of the tour, the inspector conducted an exit interview with Mr. Salayandia, Ms. Burnette, and Mr. Jerry Bonner, Lab Technician, to discuss preliminary findings of the inspection.

Treatment Scheme:

The Truth or Consequences (T or C) WWTP serves the city of Truth or Consequences and the Village of Williamsburg with an approximate, combined population of 7,900 people. The WWTP is an extended aeration activated sludge treatment system with chlorine disinfection and dechlorination. This system is extremely old (37 years) and the City is currently preparing and scheduling for rehabilitation (Phase I of the renovation is planned to start later this summer or early fall). Wastewater gravity flows into the facility from five lift stations and enters the headworks where a mechanical bar screen and back up manual screen are located. Materials collected from the bar screen are stored in a trash bin, and then are spread out in one of the facility's sludge beds to dry. Once dry, the material is sent to the Corralitos Landfill near Las Cruces, NM for final disposal. Wastewater passes through the screen to a grit separator and removal system. The grit system consists of a cylindrical circulating tank where grit settles out and then passes through a fine mesh screen; grit is collected in a dumpster and remaining liquid from this process is returned to the headworks.

Wastewater from the grit chamber gravity flows into a racetrack type extended aeration basin equipped with three surface power brush rotors that are used for aeration. A scum trough in the aeration basin collects excess foam that is sent directly to the foam drying beds. Return Activated Sludge (RAS) from the clarifiers is continuously returned to the aeration basin at the corner opposite from the grit chamber.

Wastewater exits the aeration basin and gravity flows into a splitter box and is then equally divided between two parallel secondary clarifiers. The splitter box contains a manual bar screen for additional solids removal before the wastewater enters the clarifiers. Metal rectangular weirs are used in the clarifiers. The weirs and clarifiers are showing their age with some fingers missing and short circuiting occurring, which allows some

solids and floatables to pass through this stage to the disinfection unit.

Clarified water enters a chlorine contact chamber that consists of two parallel rectangular concrete basins that receive 45 minutes of contact time in each basin. The plant uses water to spray down their contact chamber in order to keep the scum down. Disinfected wastewater is dechlorinated with sulfur dioxide gas in a basin following the chlorine chamber. Both gas tanks for chlorine and sulfur dioxide are equipped with an automatic switchover device to ensure there are no lapses in chemical feed. The wastewater flow rate and chemical amounts are not automatically calibrated to maximize efficiency. Instead, rates are set at uniform rates which seem to work effectively for the plant.

Dechlorinated effluent flows through a 9" Parshall flume where flow is measured by an ultrasonic totalizer meter. Effluent is then discharged through outfall 001 to the Rio Grande. Rip-rap has been installed directly below the outfall pipe to increase aeration and reduce bank erosion. At certain times of the year, a portion of the effluent can also be diverted to an effluent reuse pond for land application on city parks and the municipal golf course.

The planned Phase I Construction to be completed in the upcoming year include renovating the headworks and mechanical bar screen, replacing the power brush rotors in the aeration basin with bubble diffusers, upgrading to an ultraviolet light disinfection system, and incorporating a belt filter press to dry solids.

SLUDGE HANDLING:

Waste activated sludge (WAS) from the clarifiers is sent to two vacuum assisted drying beds where a cationic polymer is added and liquid is drawn through the porous blocks that make up the beds. The sludge solids stay on top of the blocks and recovered liquid from this process is returned to the headworks. Sludge is then removed and stockpiled on concrete drying beds and spread out for further drying. Class A is achieved by meeting the temperature requirements for pathogen reduction and the percent solids requirement for vector attraction reduction. The Class A material is made available free to the public and applied to city parks and golf course.

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 B – Recordkeeping and Reporting Evaluation – Overall Rating of "Marginal"

Permit Requirements for Recordkeeping and Reporting:

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

Monitoring results must be reported on Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the "General Instructions" provided on the form…

Part III.F.22 of the permit under "Municipal Terms" defines:

7-DAY AVERAGE or WEEKLY AVERAGE is the arithmetic mean of the daily values for all effluent samples collected during a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

The NPDES Reporting Requirements Handbook for EPA Region 6 advises:

How do I calculate and report 7-day averages?

We recognize that calendar weeks and calendar months rarely coincide. Therefore, for the purpose of calculating and reporting 7-day averages, you should follow the process below:

a) Define your week (SUN-SAT, MON-SUN, etc.).
b) Calculate the averages of all sample data obtained for each week.
c) The highest calculated weekly average will be reported on the DMR for the month in which (1) the week ends or (2) the week begins, or (3) the month which contains the greatest number of days. It is the choice of the facility. However, the choice should be consistent month to month, year to year.

Findings for Recordkeeping and Reporting Evaluation:

The inspector reviewed two months of bench sheets (August 2014, September 2014). Several reported values were inconsistent with the actual analytical, or calculated, results (see highlighted values in table below and Appendix A).

PARAMETER	Monitoring period end date	REPORTED 30 Day Average	ACTUAL 30 Day Average	REPORTED 7 Day Average	ACTUAL 7 Day Average	REPORTED Maximum	ACTUAL Maximum
E. coli (cfu/100mL)	8/31/2014	28	**21**	-	-	53	53
Flow (MGD)	9/30/2014	0.582	0.582	0.687	**0.743**	-	-

NetDMR is a web-based application that allows National Pollutant Discharge Elimination System (NPDES) Permittee Users to enter and electronically submit Discharge Monitoring Report (DMR) data through the Central Data Exchange (CDX) to the Integrated Compliance Information System (ICIS). This is an alternative to the paper-based DMR submission process. The EPA is encouraging permittees to transition from submitting DMRs as paper copies to the NetDMR system. Information on NetDMR and training can be found at: https://netdmr.epa.gov/netdmr/public/getting_started.htm and http://epa.gov/netdmr/about/training.html.

Section C – Operations and Maintenance – Overall Rating of "Marginal"

Permit Requirements for Operations 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 and auxiliary facility 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 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 Operations and Maintenance:

The permittee is having some difficulty maintaining the facility due to the age of the treatment system. The system is 37 years old and is showing its age. For example, on the day of this inspection, the mechanical bar screen was not operating (and had not been operating) so rags and debris are being removed manually; one of the power rotor brushes in the aeration basin needs repair and was not turned on, however the permittee's representative demonstrated that it could be turned on for aeration but only if needed; and the weirs in the clarifiers were missing some fingers causing short circuiting and some solids to pass through. The plant staff is doing a remarkable job in keeping this plant functioning with the issues that are seen on a daily basis. However, as is seen with many plants of this size and age, the plant is in need of more staff members to help with this endeavor and an investment in operations and qualified personnel.

Regarding investment in operations, the City of Truth or Consequences has secured funding and is currently planning Phase I Renovations. Construction is scheduled to begin this summer and last through next year. Upgrades during this phase of construction include repairing the mechanical bar screen, adding bubble diffusers to the aeration basin, installing an ultraviolet disinfection unit, and acquiring a belt filter press for sludge handling.

Section G – Effluent/Receiving Waters – Overall Rating of "Marginal"

Permit Requirements for Effluent/Receiving Waters:
The permit requires in Part I.A, Limitations and Monitoring Requirements:

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated municipal wastewater from Outfalls 001. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.6	9	Daily	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS lbs/day, unless noted		mg/l, unless noted			MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	30-DAY AVG	7-DAY AVG	30-DAY AVG	7-DAY AVG	DAILY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD	Report MGD	***	***	***	Continuous	Totalizing Meter
Biochemical Oxygen Demand, 5-day	00310	265	398	30	45	N/A	Once/week	6-Hr Composite
Total Suspended Solids	00530	265	398	30	45	N/A	Once/Week	6-Hr Composite
E. Coli Bacteria (*1)	51040	N/A	N/A	548	N/A	2507	Once/Week	Grab
Total Residual Chlorine	50060	N/A	N/A	N/A	N/A	19 ug/l	Daily	Instantaneous Grab (*2)
Total Copper (*3)	01042	0.39	N/A	44 ug/l	N/A	66 ug/l	Once/Month	24-Hr Composite

Findings for Effluent/Receiving Waters:

DMR data from 2011 forward were reviewed. There were several exceedences of the pH minimum permit limitation (6.6 Standard Units). Also of note, were *E. coli* values that, although they are not exceeding the current permit limits of 548 cfu/100mL (30-day average) and 2507 cfu/100mL (daily maximum), there are several reported results that would exceed potential *future* permit limits designed to protect primary contact recreation – 126 cfu/100mL (30-day average) and 410 cfu/100mL (daily maximum). Furthermore, the maximum *E. coli* levels from 2011 – 2014 were measured relatively recently in January 2014.

NPDES No.	parameter	Monitoring period end date	MINIMUM	MAXIMUM	Permit limits	Units	Permit effective date	Permit expiration date
NM0020681	pH	8/31/2011	6.44	6.98	6.6-9.0	SU	3/1/2009	2/28/2014
NM0020681	pH	11/30/2012	6.59	7.16	6.6-9.0	SU	3/1/2009	2/28/2014
NM0020681	pH	8/31/2014	6.57	7	6.6-9.0	SU	3/1/2009	2/28/2014
NM0020681	pH	9/30/2014	6.53	7.04	6.6-9.0	SU	3/1/2009	2/28/2014

NPDES No.	parameter	Monitoring period end date	30DAY AVG	DAILY MAX	Permit limits	Units	Permit effective date	Permit expiration date
NM0020681	*E. coli*	4/30/2013	172	433	548/2507	CFU/100mL	3/1/2009	2/28/2014
NM0020681	*E. coli*	11/30/2013	344	900	548/2507	CFU/100mL	3/1/2009	2/28/2014
NM0020681	*E. coli*	1/31/2014	368	1250	548/2507	CFU/100mL	3/1/2009	2/28/2014
	MAXIMUM (2011 – 2014)		368	1250				
	Primary Contact Recreation Limits		*126*	*410*				

As stated previously, bench sheets from August and September 2014 were reviewed. It was noted that total residual chlorine (TRC) was being measured at detectable levels; however those measurements were not being reported correctly on the DMRs (see Recordkeeping and Reporting Section above). Multiple exceedences of the TRC permit limitation occurred, with 16 days in August 2014 that exceeded 19 µg/L and 22 days in September 2014 that exceeded the 19 µg/L daily maximum limit (Appendix A).

CORRECTION:

Part II.B, Minimum Quantification Level (MQL), of the permit states:

> *If any individual analytical test result is less than the minimum quantification level listed in Appendix A, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements.*

Appendix A of Part II of the permit lists an MQL for total residual chlorine of 33 µg/L.

As stated previously, bench sheets from August and September 2014 were reviewed. It was noted that total residual chlorine (TRC) was ~~being measured at detectable levels; however those measurements were not being reported correctly on the DMRs (see Recordkeeping and Reporting Section above). Multiple exceedences of the TRC permit limitation occurred, with 16 days in August 2014 that exceeded 19 µg/L and 22 days in September 2014 that exceeded the 19 µg/L daily maximum limit (Appendix A).~~ detected; however accurate and precise quantification of TRC at levels low enough to evaluate wastewater discharge permit limit compliance is difficult. EPA-approved ultra-low range methods (i.e., results in µg/L as opposed to mg/L) are available to quantify TRC levels in the 0 – 500 µg/L range. These can be employed to achieve accurate and precise results that could be compared to the effluent limitation specified in the permit – in this instance, 19 µg/L – in order to effectively and correctly determine compliance. Until the time that ultra-low range methods are used, according to Part II.B of the permit, analytical test results less than the listed MQL (33 µg/L) may be reported as zero (0) on the DMR.

APPENDIX A: DMR and BENCH SHEET REVIEW

TABLE 1. Reported DMR Data from August and September 2014

NPDES No.	parameter	Monitoring period end date	30-Day AVG (lbs/day)	7-Day AVG (lbs/day)	30-Day AVG (mg/L)	7-Day AVG (mg/L)	Pemit Limits	Permit effective date	Permit expiration date
NM0020681	BOD, 5-day, 20 deg. C	8/31/2014	68.31	76.29	12.8	13.2	265/398/30/45	3/1/2009	2/28/2014
NM0020681	BOD, 5-day, 20 deg. C	9/30/2014	74.92	136.03	14.9	18.9	265/398/30/45	3/1/2009	2/28/2014
NM0020681	Solids, total suspended	8/31/2014	80.62	129.64	14.8	21.5	265/398/30/45	3/1/2009	2/28/2014
NM0020681	Solids, total suspended	9/30/2014	58.86	102.92	12.1	14.3	265/398/30/45	3/1/2009	2/28/2014
NM0020681	E. coli (cfu/100mL)	8/31/2014	-	-	**28**	53 (max)	548/2507	3/1/2009	2/28/2014
NM0020681	E. coli (cfu/100mL)	9/30/2014	-	-	7	14 (max)	548/2507	3/1/2009	2/28/2014
NM0020681	Copper, total (ug/L)	8/31/2014	0.06	-	10	10 (max)	0.39/44/66	3/1/2012	2/28/2014
NM0020681	Copper, total (ug/L)	9/30/2014	0.03	-	8	8 (max)	0.39/44/66	3/1/2012	2/28/2014
NM0020681	pH (S.U.)	8/31/2014	-	-	6.57 (min)	7 (max)	6.6-9.0	3/1/2009	2/28/2014
NM0020681	pH (S.U.)	9/30/2014	-	-	6.53 (min)	7.04 (max)	6.6-9.0	3/1/2009	2/28/2014
NM0020681	Chlorine, total residual	8/31/2014	-	-	-	0 (max)	19 ug/L	3/1/2009	2/28/2014
NM0020681	Chlorine, total residual	9/30/2014	-	-	-	0 (max)	19 ug/L	3/1/2009	2/28/2014
NM0020681	Flow	8/31/2014	-	-	0.579	0.622	MGD	3/1/2009	2/28/2014
NM0020681	Flow	9/30/2014	-	-	0.582	**0.687**	MGD	3/1/2009	2/28/2014

TABLE 2. Analytical Results from Laboratory Bench Sheets from August and September 2014

AUGUST	FLOW (MGD)	BOD (mg/L)	BOD (lbs/day)	TSS (mg/L)	TSS (lbs/day)	E. coli	Cu (mg/L)	Cu (lbs/day)
8/6/2014	0.693	13.2	76.29	11.8	68.20	6	0.01	0.06
8/13/2014	0.472	13.1	51.57	12.3	48.42	53	-	-
8/20/2014	0.677	12.4	70.01	13.5	76.22	25	-	-
8/27/2014	0.723	12.5	75.37	21.5	129.64	<1	-	-
	average	12.8	68.31	14.8	80.62	**21**	0.01	0.06
	maximum	13.2	76.29	21.5	129.64	53	0.01	

SEPTEMBER	FLOW (MGD)	BOD (mg/L)	BOD (lbs/day)	TSS (mg/L)	TSS (lbs/day)	E. coli	Cu (mg/L)	Cu (lbs/day)
9/3/2014	0.396	14.2	46.90	13.5	44.59	<1	0.008	0.03
9/10/2014	0.344	13.1	37.58	11	31.56	7	-	-
9/17/2014	0.863	18.9	136.03	14.3	102.92	6	-	-
9/24/2014	0.719	13.2	79.15	9.4	56.37	14	-	-
	average	14.9	74.92	12.1	58.86	7	0.008	0.03
	maximum	18.9	136.03	14.3	102.92	14	0.008	0.03

NOTES: Yellow highlighted values in Table 1 were reported incorrectly on DMR (see corresponding yellow results in Tables 2 & 3). Red indicates exceedence of the permit limit.

TABLE 3. Daily Logs for pH, total residual chlorine, and flow – August and September

Day	AUGUST 2014 pH (SU)	*(7-Day Average Flows calculated from SUN - SAT)* TRC (mg/L)	FLOW (mgd)	7-DA AVG	SEPTEMBER 2014 pH (SU)	TRC (mg/L)	FLOW (mgd)	7-DA AVG
1	6.68	0.01	0.774	-	6.61	*0.02*	0.583	0.321
2	6.63	*0.02*	0.341	-	6.60	0.01	0.264	-
3	6.62	0.01	0.753	0.593	6.98	*0.02*	0.396	-
4	6.60	*0.02*	0.679	-	6.88	*0.02*	0.415	-
5	6.71	0.01	0.383	-	6.76	*0.02*	0.283	-
6	6.68	0.01	0.693	-	6.73	*0.02*	0.302	-
7	6.60	0.01	0.406	-	6.75	*0.02*	0.283	0.457
8	7.00	0.01	0.58	-	6.53	*0.02*	0.718	-
9	6.84	*0.02*	0.654	-	7.00	0.01	0.445	-
10	6.76	*0.02*	0.785	0.622	6.87	*0.02*	0.344	-
11	6.61	0.01	0.751	-	6.71	*0.02*	0.313	-
12	6.60	0.01	0.589	-	6.76	*0.02*	0.611	-
13	7.00	*0.02*	0.472	-	6.73	*0.02*	0.485	-
14	6.80	0.01	0.444	-	6.74	*0.02*	0.726	0.743
15	6.60	*0.02*	0.726	-	6.64	*0.02*	0.714	-
16	6.87	*0.02*	0.59	-	6.62	*0.02*	0.711	-
17	6.71	*0.02*	0.693	0.613	7.04	*0.02*	0.863	-
18	6.58	*0.02*	0.24	-	6.91	*0.02*	0.760	-
19	6.92	*0.02*	0.686	-	6.81	*0.02*	0.697	-
20	6.84	*0.02*	0.677	-	6.77	*0.02*	0.730	-
21	6.63	*0.02*	0.673	-	6.76	0.01	0.725	0.736
22	6.67	0.01	0.673	-	6.67	*0.02*	0.700	-
23	6.63	*0.02*	0.651	-	6.56	*0.02*	0.889	-
24	6.61	0.01	0.699	0.577	7.02	0.01	0.719	-
25	6.57	*0.02*	0.581	-	6.84	0.01	0.714	-
26	6.89	*0.02*	0.581	-	6.65	0.01	0.708	-
27	6.85	0.01	0.723	-	6.92	*0.02*	0.694	-
28	6.67	0.00	0.69	-	6.80	*0.02*	.726	-
29	6.66	0.01	0.657	-	6.74	0.01	0.360	-
30	6.60	*0.02*	0.104	-	6.81	0.01	0.576	-
31	6.64	0.01	0.003	-	-	-	-	-
MAX	7.00	0.02	-	0.622	7.04	0.02	-	**0.743**
MIN	6.57	-	-	-	6.53	-	-	-
AVG	-	-	0.579	-	-	-	0.582	-

NOTES: Red indicates exceedence of the permit limit.

Italicized values indicate TRC is present, but precise quantity is not known within accepted limits.

NMED/SWQB

Official Photograph Log

Photo #1

Photographer: Shelly Lemon	Date: 02-25-2015	Time: 09:40 hours
City/County: T or C/Sierra County		
Location: Truth or Consequences WWTP		
Subject: Aeration Basin – notice the ducks paddling in the basin. Phase 1 Renovations will add bubble diffusers to the aeration basin.		

NMED/SWQB

Official Photograph Log

Photo #2

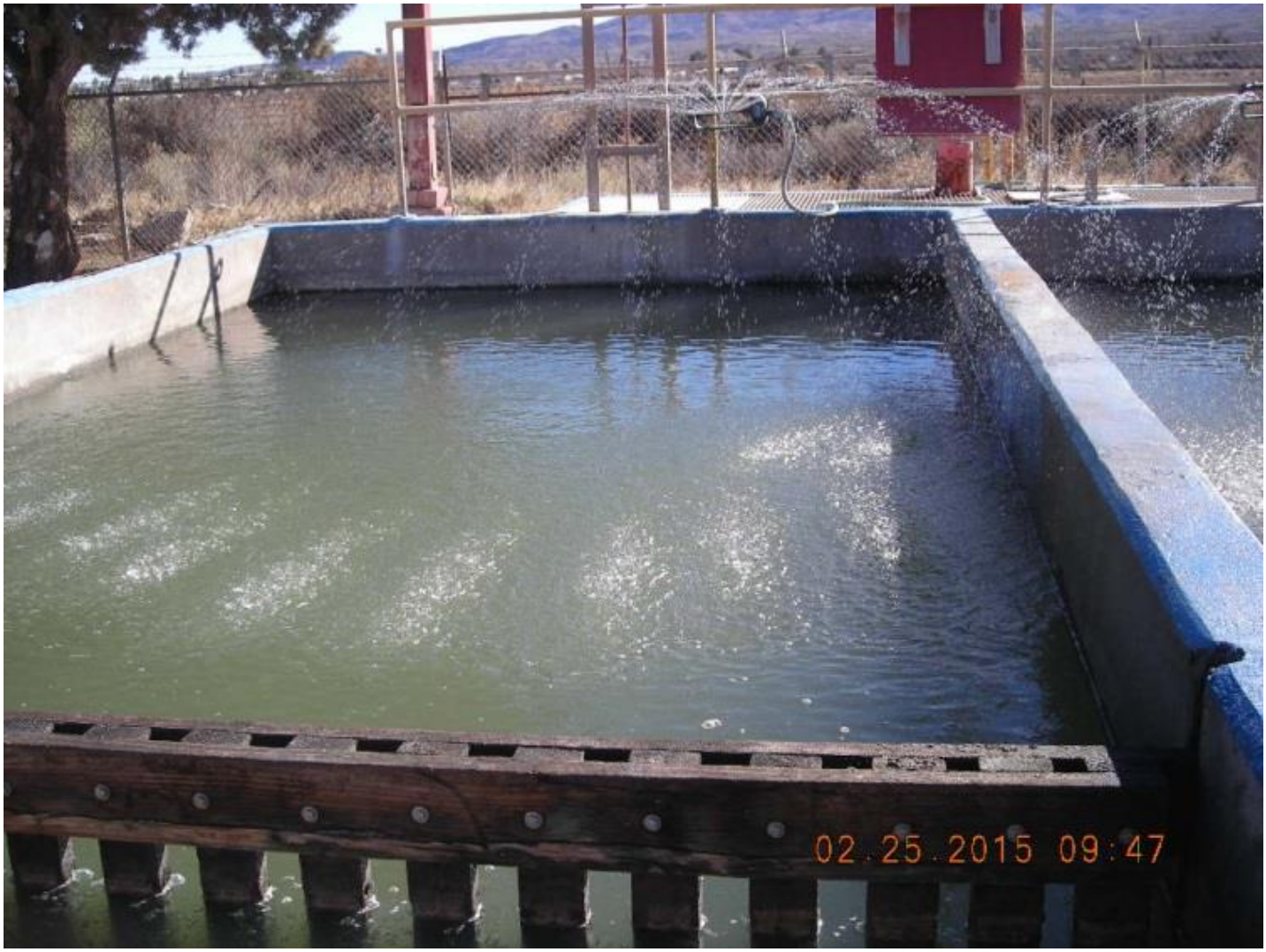
Photographer: Shelly Lemon	Date: 02-25-2015	Time: 09:46 hours
City/County: T or C/Sierra County		
Location: Truth or Consequences WWTP		
Subject: Clarifier #1 (north)		

NMED/SWQB

Official Photograph Log

Photo #3

Photographer: Shelly Lemon	Date: 02-25-2015	Time: 09:47 hours
City/County: T or C/Sierra County		
Location: Truth or Consequences WWTP		
Subject: Chlorine contact chamber – foam is kept to a minimum by using sprayers. Chlorine is dosed at a constant rate. Phase 1 Renovations will replace the chlorine disinfection system with an ultraviolet (UV) disinfection system.		



NMED/SWQB

Official Photograph Log

Photo #4

Photographer: Shelly Lemon	Date: 02-25-2015	Time: 09:54 hours
City/County: T or C/Sierra County		
Location: Truth or Consequences WWTP		
Subject: Outfall to the Rio Grande.