North Dakota Department of Health Public Notice
Reissue of an NDPDES Permit

Public Notice Date: 7/25/2016 Public Notice Number: ND-2016-032

Purpose of Public Notice

The Department intends to reissue the following North Dakota Pollutant Discharge Elimination System (NDPDES) Discharge Permit under the authority of Section 61-28-04 of the North Dakota Century Code.

Permit Information

Application Date: 4/4/2016 Application Number: ND0020320

Applicant Name: Wahpeton City Of

Mailing Address: PO Box 490, Wahpeton, ND 58074

Telephone Number: 701.642.6565

Proposed Permit Expiration Date: 9/30/2021

Facility Description

The reapplication is for five waste stabilization ponds which service the City of Wahpeton. The discharge facility is located in the SE1/4 of Section 28, Township 133 North, Range 47 West, and the NE1/4 of Section 17, Township 133 North, Range 47 West. All discharges would be to the Red River of the North, a Class I stream.

Tentative Determinations

Proposed effluent limitations and other permit conditions have been made by the Department. They assure that State Water Quality Standards and applicable provisions of the FWPCAA will be protected.

Information Requests and Public Comments

Copies of the application, draft permit, and related documents are available for review. Comments or requests should be directed to the ND Dept of Health, Div of Water Quality, 918 East Divide Ave, Bismarck ND 58501-1947 or by calling 701.328.5210.

All comments received by August 26, 2016 will be considered prior to finalizing the permit. If there is significant interest, a public hearing will be scheduled. Otherwise, the Department will issue the final permit within sixty (60) days of this notice. If you require special facilities or assistance relating to a disability, call TDD at 1.800.366.6868.

FACT SHEET FOR NDPDES PERMIT ND-0020320

CITY OF WAHPETON

DATE OF THIS FACT SHEET – July, 2016

INTRODUCTION

The Federal Clean Water Act (CWA, 1972, and later amendments in 1977, 1981, and 1987, etc.) established water quality goals for the navigable (surface) waters of the United States. One mechanism for achieving the goals of the CWA is the National Pollutant Discharge Elimination System (NPDES), which the US Environmental Protection Agency (EPA) has oversight authority. In 1975, the State of North Dakota was delegated primacy of the NPDES program by EPA. The North Dakota Department of Health (NDDoH) has been designated the state water pollution control agency for all purposes of the Federal Water Pollution Control Act, as amended [33 U.S.C. 1251, et seq.], and is hereby authorized to take all action necessary or appropriate to secure to this state the benefits of the act and similar federal acts. The department's authority and obligations for the wastewater discharge permit program is in the NDAC 33-16 (North Dakota Administrative Code), which was promulgated pursuant to NDCC chapter 61-28 (North Dakota Century Code). The department uses North Dakota Pollutant Discharge Elimination System (NDPDES) as its permitting title.

The following rules or regulations apply to NDPDES permits:

- Procedures the department follows for issuing NDPDES permits (NDAC chapter 33-16-01),
- Standards of Quality for Waters of the State (NDAC chapter 33-16-02.1).

These rules require any treatment facility operator to obtain an NDPDES permit before discharging wastewater to state waters. They also define the basis for limits on each discharge and for other requirements imposed by the permit.

According to the North Dakota Administrative Code (NDAC) section 33-16-01-08, the department must prepare a draft permit and accompanying fact sheet, and make it available for public review. The department must also publish an announcement (public notice) during a period of thirty days, informing the public where a draft permit may be obtained and where comments regarding the draft permit may be sent (NDAC chapter 33-16-01-07). For more information regarding preparing and submitting comments about the fact sheet and permit, please see **Appendix A – Public Involvement**. Following the public comment period, the department may make changes to the draft NDPDES permit. The department will summarize the responses to comments and changes to the permit in **Appendix D - Response to Comments.**

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BACKGROUND INFORMATION

Table 1 – General Facility Information

Applicant:	Wahpeton, City of
Facility Name and Address:	Wahpeton City of 1900 4th St N, Wahpeton ND 58075 701.642.6565
Permit Number:	ND0020320
Permit Type:	Major, POTW, Reissuance
Type of Treatment:	Waste Stabilization Pond System with Primary Cell Aeration
SIC Code:	4952
Discharge Location:	Red River of the North, Class I water body Latitude: 46.29999944 Longitude: -96.60114272
Hydrologic Code:	09020104 – Upper Red River
Population:	7,800

Figure 1: Aerial Photograph of the City of Wahpeton Stabilization Ponds (ND GIS Hub 2015)

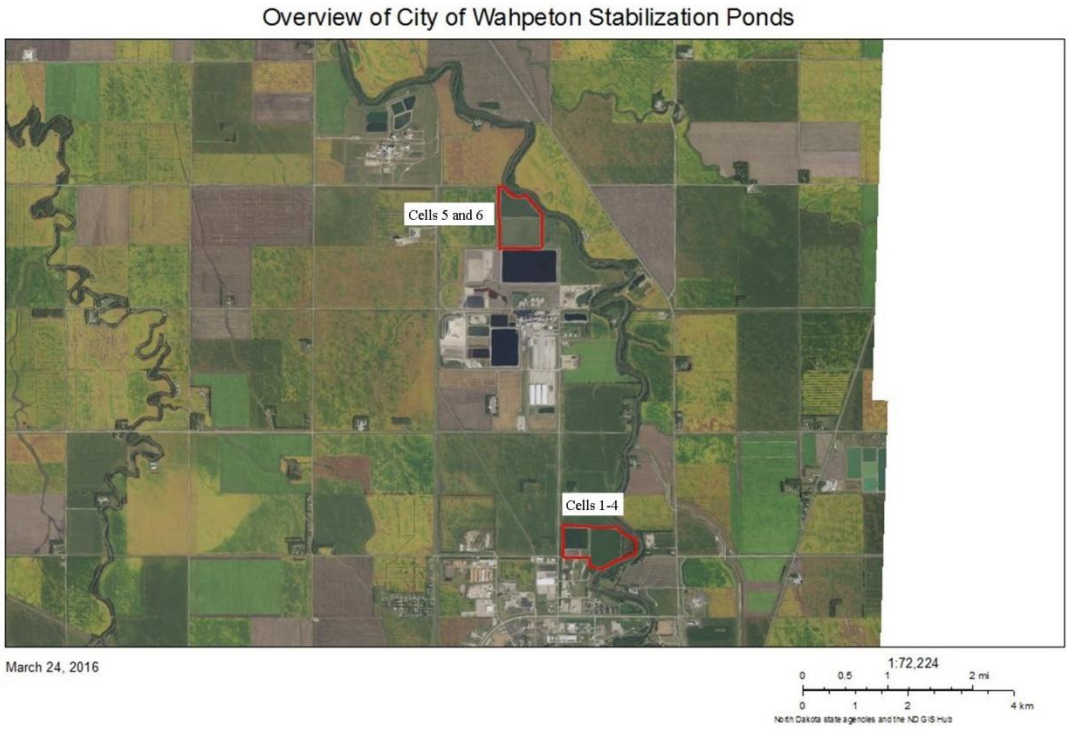


Figure 2: Aerial Photograph of the City of Wahpeton Cells 1 through 4 (ND GIS Hub 2015)

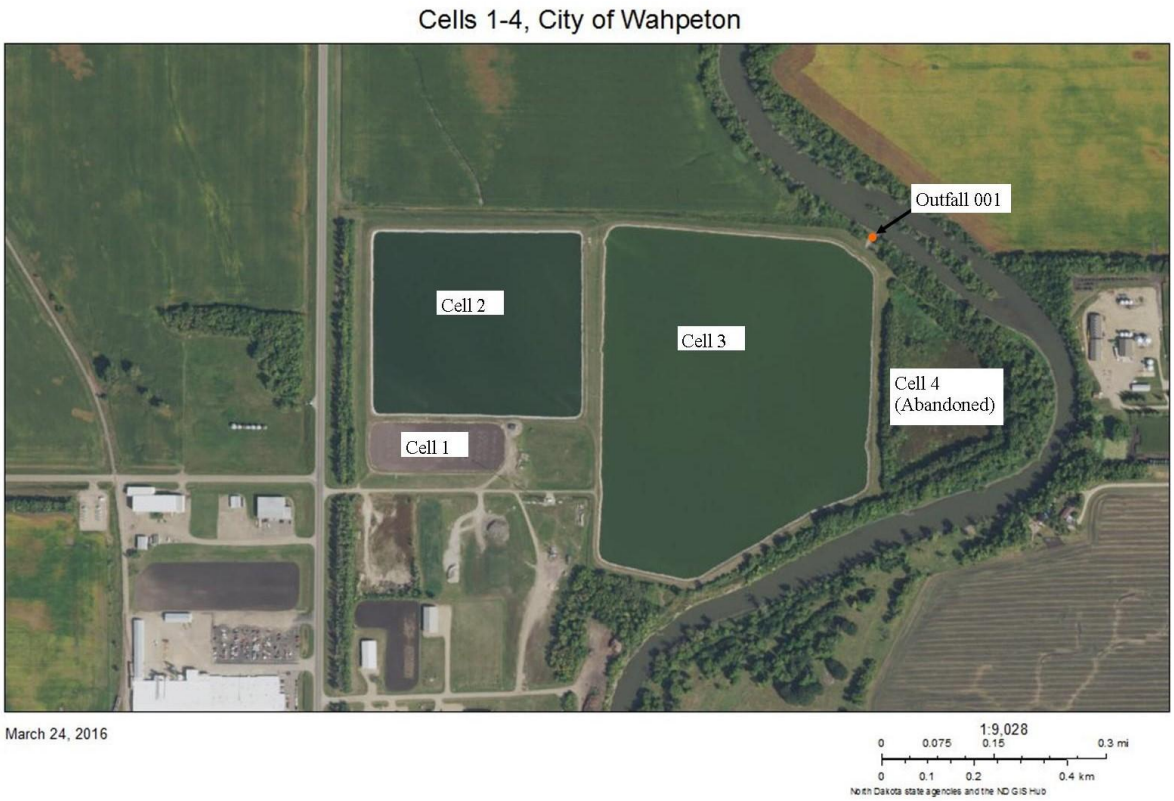
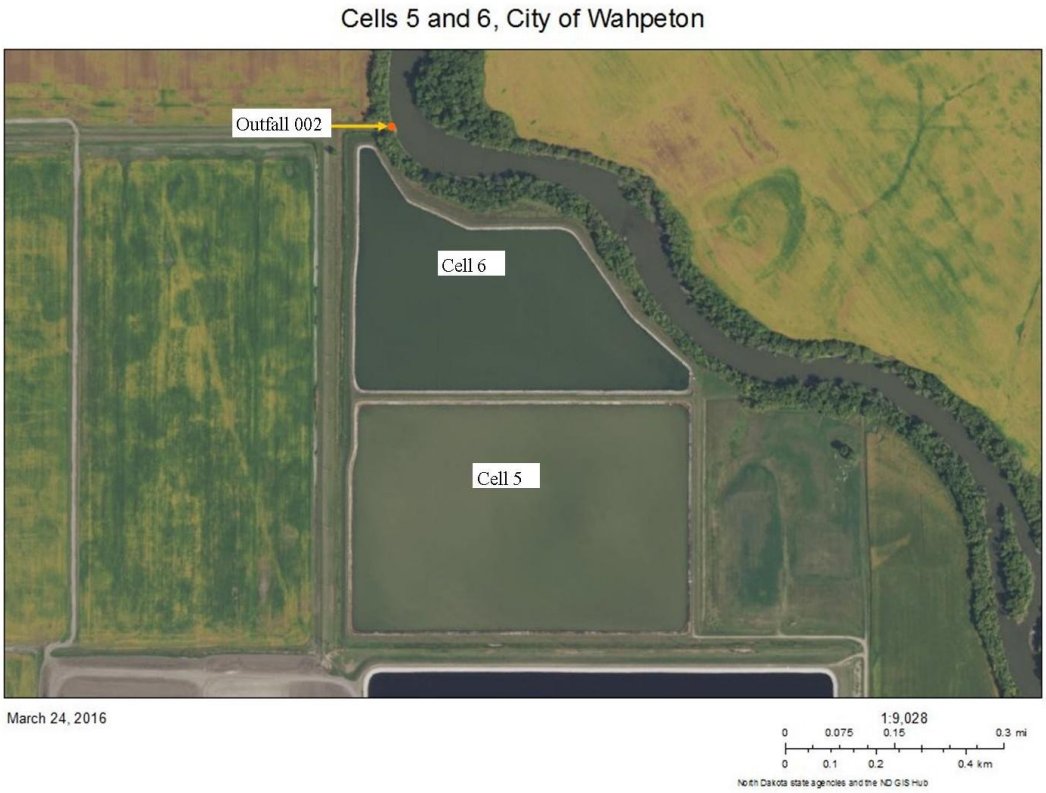


Figure 3: Aerial Photograph of the City of Wahpeton Cells 5 and 6 (ND GIS Hub 2015)



FACILITY DESCRIPTION

History

The City of Wahpeton wastewater treatment system treats municipal wastewater from the City of Wahpeton which consists of a mixture of domestic and industrial wastewater. Wahpeton currently has 1,835 residential sewer service connections and 527 commercial sewer service connections. Commercial sewer service connections include apartments.

The City of Wahpeton utilizes waste stabilization ponds (lagoons) for treatment. Cell number one (1) is a 3.55 acre aerated pond. Wastewater from Wahpeton is pumped by forcemain to this pond. There are three separate lift stations that pump to this pond, Lift Stations 1, 8 and 9.

Wastewater is then routed to Cell 2 for further treatment. Cell 2 is a 21.2 acre pond. From Cell 2, wastewater can be directed to Cell 3 or up to Cells 5 and 6 for finishing prior to discharging to the Red River of the North from Outfall 001 or Outfall 002.

Cell 3 is a 51 acre pond and has an operating volume of 83.1 million gallons. Cell 5 is a 47.7 acre pond and has an operating volume of 93.3 million gallons. Cell 6 is a 29.4 acre pond and has an operating volume of 58 million gallons.

The waste stabilization ponds service a population of approximately 7,800 according to the EPA form 2A application. In 1991, the city added Cells 5 and 6. Cell 4 was abandoned and last used in 2000.

During the spring and summer of 2003, a major renovation was completed on Cell 1. Underwater piping was added along with mechanical pumps. This was done in order to maximize aeration in order to assist in reducing ammonia and BOD loading across the entire system.

Treatment System

Normal Operation:

Flow enters aerated pond 1 by forcemain from three lift stations, lift station 1, lift station 8, and lift station 9. Flows into pond 1 range from 600,000 gallons per day (gpd) in dry weather and low flow conditions; up to over 1 million gallons per day in wet weather and high flow conditions. The wastewater then goes to pond 2 by a weir structure located between the two ponds. Pond 2 receives the same volume of water every day that pond 1 receives (600,000 gpd – 1,000,000+ gpd). When pond 2 is filled it is then transferred to one of the finishing ponds; pond 3, pond 5, or pond 6. These ponds are typically discharged to the Red River in the spring and fall of the year.

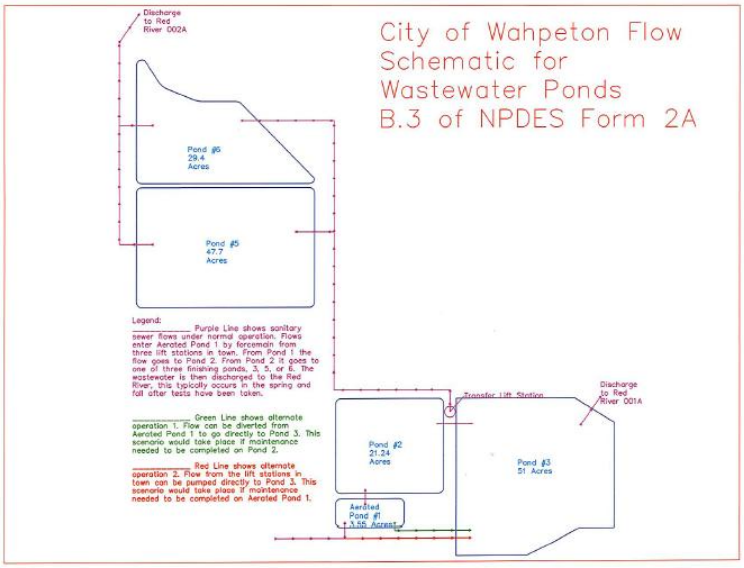
Alternate Operation 1:

Alternate operation 1 bypasses pond 2. If pond 2 needs to be taken down for maintenance, a valve can be opened on the southeast corner of pond 1. This will then send the flow from pond 1 into pond 3, bypassing pond 2.

Alternate Operation 2:

Alternate operation 2 bypasses pond 1 and pond 2. If pond 1 needs to be bypassed for maintenance, a valve on the forcemain can be opened to send the flow from town directly to pond 3.

The following diagrams of the wastewater treatment system were provided with the permit application.


City of Wahpeton Flow Schematic for Wastewater Ponds B.3 of NPDES Form 2A
Discharge to Red River 002A
Pond #6 29.4 Acres
Pond #5 47.7 Acres
Legend:
Purple Line shows sanitary sewer flows under normal operation. Flows enter Aerated Pond 1 by forcemain from three lift stations in town. From Pond 1 the flow goes to Pond 2. From Pond 2 it goes to one of three finishing ponds, 3, 5, or 6. The wastewater is then discharged to the Red River. This typically occurs in the spring and fall after tests have been taken.
Green Line shows alternate operation 1. Flow can be diverted from Aerated Pond 1 to go directly to Pond 3. This scenario would take place if maintenance needed to be completed on Pond 2.
Red Line shows alternate operation 2. Flow from the lift stations in town can be pumped directly to Pond 3. This scenario would take place if maintenance needed to be completed on Aerated Pond 1.
Transfer Lift Station
Discharge to Red River 001A
Pond #2 21.24 Acres
Pond #3 51 Acres
Aerated Pond #1 ± 5.55 Acres

Outfall Description

Outfall 001. Active. Final Outfall. South Site.			
Latitude: 46.29999944	Longitude: -96.60114272	County: Richland	
Township: 133	Range: 47	Section: 28	QQ: DBC
Receiving Stream: Red River of the North		Classification: I	
Outfall Description: This is the outfall from Cells 1, 2, and 3.			

Outfall 002. Active. Final Outfall. North Site.			
Latitude: 46.33733916	Longitude: -96.62153796	County: Richland	
Township: 133	Range: 47	Section: 17	QQ: ABB
Receiving Stream: Red River of the North		Classification: I	
Outfall Description: This is the outfall from Cells 5 and 6.			

PERMIT STATUS

The department issued the previous permit for the facility on October 1, 2011. The previous permit had effluent limits on the following parameters: 5-day BOD, Total Suspended Solids (TSS), pH, Ammonia, *E.coli*, Oil and Grease, and Whole Effluent Toxicity.

The department has been in contact with the City of Wahpeton to obtain information to reissue their permit. The department received EPA applications Form 1 and Form 2A on April 4, 2016. The application was accepted by the department on April 4, 2016. Effluent sample data has been provided to the department through official laboratory reports, discharge monitoring reports, and the permit application Form 2A.

SUMMARY OF COMPLIANCE WITH PREVIOUS PERMIT ISSUED

Four (4) inspections of the facility have been conducted from October 1, 2011 to February 29, 2016. The facility was in non-compliance in June 2013, May 2014, and April and September 2015 for effluent limitation exceedances (**Table 3**). The facility did not have effluent limitation exceedances from October 2015 through February 2016 (**Table 3**) and were back into compliance. The department's assessment of the compliance is based on review of the facility's Discharge Monitoring Report (DMR) forms and inspections conducted by the department.

The City of Wahpeton is an intermittent discharger. A summary of the data follows:

Table 2: DMR data summary for Wahpeton, City of from 10/01/2011 through 02/29/2016

Name	Disch Pt	Location	Parameter	Min Conc	Ave Conc	Max Conc	Max Units	Ave Load	Max Load	Max Load Units
Wahpeton City Of	001A	Effluent	Ammonia as Nitrogen	0.16	1.49	4.5	mg/L			
Wahpeton City Of	001A	Effluent	Biochemical Oxygen Demand		6.79	20.2	mg/L			
Wahpeton City Of	001A	Effluent	Discharge Flow in Million Gals					10.10	15	MGD
Wahpeton City Of	001A	Effluent	E Coli Geometric Mean	1	15.27	41	Num/100 mL			
Wahpeton City Of	001A	In Stream	Flow in the Receiving Stream					769.00	1625	CFS
Wahpeton City Of	001A	Effluent	Flow Total Month						87	MGAL
Wahpeton City Of	001A	Effluent	Oil & Grease							
Wahpeton City Of	001A	Effluent	Oil and Grease Visual						0	Y=1;N=0
Wahpeton City Of	001A	Effluent	pH	8		9	S.U.			

Table 2: DMR data summary for Wahpeton, City of from 10/01/2011 through 02/29/2016

Name	Disch Pt	Location	Parameter	Min Conc	Ave Conc	Max Conc	Max Units	Ave Load	Max Load	Max Load Units
Wahpeton City Of	001A	Effluent	Total Dissolved Solids	1067	1240.80	1356	mg/l			
Wahpeton City Of	001A	Effluent	Total Suspended Solids		20.30	76	mg/l			
Wahpeton City Of	001W	Effluent	Acute Toxic Unit Ceriodaphnia TSM3B			1	TU a			
Wahpeton City Of	001W	Effluent	Acute Toxic Unit Fat Hd Minnows TSN6C							
Wahpeton City Of	001Y	Effluent	Antimony Total ug/l	1	1.50	2	ug/l			
Wahpeton City Of	001Y	Effluent	Arsenic Total ug/l	2	2.15	2.3	ug/l			
Wahpeton City Of	001Y	Effluent	Beryllium Total ug/l	0.5	0.50	0.5	ug/l			
Wahpeton City Of	001Y	Effluent	Cadmium Total ug/l	0.1	0.10	0.1	ug/l			
Wahpeton City Of	001Y	Effluent	Chromium Total ug/l	2.2	2.55	2.9	ug/l			
Wahpeton City Of	001Y	Effluent	Copper Total ug/l	6	6.50	7	ug/l			
Wahpeton City Of	001Y	Effluent	Cyanide	0.005	0.01	0.005	mg/l			
Wahpeton City Of	001Y	Up Stream	Hardness as CaCO3	235	249.00	263	mg/l			
Wahpeton City Of	001Y	Effluent	Lead Total ug/l	1	1.05	1.1	ug/l			
Wahpeton City Of	001Y	Effluent	Mercury Total ug/l	0.2	0.20	0.2	ug/l			
Wahpeton City Of	001Y	Effluent	Molybdenum Total ug/l	7.7	8.15	8.6	ug/L			
Wahpeton City Of	001Y	Effluent	Nickel Total ug/l	11.7	12.05	12.4	ug/l			
Wahpeton City Of	001Y	Effluent	Phenols ug/l	10	12.85	15.7	ug/l			
Wahpeton City Of	001Y	Effluent	Selenium Total ug/l	2	3.50	5	ug/l			
Wahpeto	001Y	Effluent	Silver ug/l	0.5	0.50	0.5	ug/l			

Table 2: DMR data summary for Wahpeton, City of from 10/01/2011 through 02/29/2016

Name	Disch Pt	Location	Parameter	Min Conc	Ave Conc	Max Conc	Max Units	Ave Load	Max Load	Max Load Units
n City Of										
Wahpeton City Of	001Y	Effluent	Thallium Total ug/l	0.1	0.10	0.1	ug/l			
Wahpeton City Of	001Y	Effluent	Zinc Total ug/l	50	50.00	50	ug/l			
Wahpeton City Of	002A	Effluent	Ammonia as Nitrogen	0.16	6.11	28.3	mg/L			
Wahpeton City Of	002A	Effluent	Biochemical Oxygen Demand		7.00	17.7	mg/L			
Wahpeton City Of	002A	Effluent	Discharge Flow in Million Gals					8.47	14.5	MGD
Wahpeton City Of	002A	Effluent	E Coli Geometric Mean	1	11.14	93.2	Num/100 mL			
Wahpeton City Of	002A	In Stream	Flow in the Receiving Stream					1461.92	4800	CFS
Wahpeton City Of	002A	Effluent	Flow Total Month						138.4	MGAL
Wahpeton City Of	002A	Effluent	Oil & Grease							
Wahpeton City Of	002A	Effluent	Oil and Grease Visual						0	Yes=1 No=0
Wahpeton City Of	002A	Effluent	pH	7.8		9	S.U.			
Wahpeton City Of	002A	Effluent	Total Dissolved Solids	214	1519.72	2025	mg/l			
Wahpeton City Of	002A	Effluent	Total Suspended Solids		17.92	107	mg/l			
Wahpeton City Of	002W	Effluent	Acute Toxic Unit Ceriodaphnia TSM3B			1	TU a			
Wahpeton City Of	002W	Effluent	Acute Toxic Unit Fat Hd Minnows TSN6C			1.46	TU a			
Wahpeton City Of	002Y	Effluent	Antimony Total ug/l	0.002	1.00	2	ug/l			

Table 2: DMR data summary for Wahpeton, City of from 10/01/2011 through 02/29/2016

Name	Disch Pt	Location	Parameter	Min Conc	Ave Conc	Max Conc	Max Units	Ave Load	Max Load	Max Load Units
Wahpeton City Of	002Y	Effluent	Arsenic Total ug/l	0.002	1.95	3.9	ug/l			
Wahpeton City Of	002Y	Effluent	Beryllium Total ug/l	0.001	2.50	5	ug/l			
Wahpeton City Of	002Y	Effluent	Cadmium Total ug/l	0.001	0.50	1	ug/l			
Wahpeton City Of	002Y	Effluent	Chromium Total ug/l	0.002	2.40	4.8	ug/l			
Wahpeton City Of	002Y	Effluent	Copper Total ug/l	0.0022	3.85	7.7	ug/l			
Wahpeton City Of	002Y	Effluent	Cyanide	0.02	0.02	0.02	mg/l			
Wahpeton City Of	002Y	Up Stream	Hardness as CaCO3	155	193.50	232	mg/l			
Wahpeton City Of	002Y	Effluent	Lead Total ug/l	0.002	0.50	1	ug/l			
Wahpeton City Of	002Y	Effluent	Mercury Total ug/l	0.0002	0.10	0.2	ug/l			
Wahpeton City Of	002Y	Effluent	Molybdenum Total ug/l	0.0031	3.50	7	ug/L			
Wahpeton City Of	002Y	Effluent	Nickel Total ug/l	0.0032	7.20	14.4	ug/l			
Wahpeton City Of	002Y	Effluent	Phenols ug/l	10	10.50	11	ug/l			
Wahpeton City Of	002Y	Effluent	Selenium Total ug/l	0.002	1.00	2	ug/l			
Wahpeton City Of	002Y	Effluent	Silver ug/l	0.001	0.25	0.5	ug/l			
Wahpeton City Of	002Y	Effluent	Thallium Total ug/l	0.001	1.00	2	ug/l			
Wahpeton City Of	002Y	Effluent	Zinc Total ug/l	0.0369	25.02	50	ug/l			

Summary of DMR Data Excursions

Six (6) excursions occurred from October 1, 2011 through February 29, 2016 for the City of Wahpeton. Two (2) exceedances were TRC exceedances (40 percent or greater above the limit).

Table 3: Summary of DMR data excursions for Wahpeton, City of from 10/01/2011 through 02/29/2016

Name	Disch Pt	Location	Month	Parameter	Min Conc	Avg Conc	Max Conc	Units Conc	Excursions	TRC Exceedance
Wahpeton City Of	001A	Effluent	9/1/2015	TSS		53.7	76	mg/l	2	-1
Wahpeton City Of	002A	Effluent	6/1/2013	TSS		60.7	107	mg/l	2	-1
Wahpeton City Of	002A	Effluent	5/1/2014	TSS		38.5	38.5	mg/l	1	0
Wahpeton City Of	002W	Effluent	4/1/2015	Toxic Unit Fathead			1.46	TU a	1	0

Sanitary Sewer Overflows (SSOs)
Overflows from manholes and lift stations associated with wet weather events have been termed Sanitary Overflows (SSOs) by EPA.

Below is a summary of bypasses for the City of Wahpeton from October 1, 2011 to May 2, 2016:

Table 4: Bypass Data Summary for Wahpeton from 10/01/2011 to 05/02/2016

Event	Location	Start Date	End Date	Event Data	Event Data Value
ByPass	Lift Station No. 1	11/20/2011	11/20/2011	Receiving Stream	Red River
ByPass	Lift Station No. 1	11/20/2011	11/20/2011	Volume Discharged (Gallons)	235000
ByPass	Lift Station 3	6/19/2014	6/21/2014	Receiving Stream	Red River
ByPass	Lift Station 3	6/19/2014	6/21/2014	Volume Discharged (Gallons)	1348500
ByPass	9th St North	2/21/2015	2/23/2015	Volume Discharged (Gallons)	25000
ByPass	9th St North	2/21/2015	2/23/2015	Receiving Stream	Wild Rice River, via Drain #1
ByPass	Lift Station #2 and 3	4/29/2016		Receiving Stream	Red River of the North
ByPass	Lift Station #2 and 3	4/29/2016		Volume Discharged (Gallons)	0

PROPOSED PERMIT LIMITS AND SELF MONITORING REQUIREMENTS

The City of Wahpeton is subject to the secondary treatment standards. Federal and state regulations define technology-based effluent limits for municipal wastewater treatment plants. These effluent limits are given in 40 CFR 133 and in NDAC Chapter 33-16-01-30. These regulations are performance standards that constitute all known, available, and reasonable methods of prevention, control, and treatment for municipal wastewater.

Below are the technology-based limits specified in 40 CFR 133 for BOD5, TSS, pH, and Percent Removal:

40 CFR Part 133 Technology-Based Effluent Limits-Municipal Treatment		
Parameter	**30 Day Average**	**7 Day Average**
BOD5	30 mg/l	45 mg/l
TSS	30 mg/l	45 mg/l
pH	Remain between 6.0 to 9.0	
Percent Removal	85% BOD5 and TSS	

NDAC Chapter 33-16-01-14 (3)(c)(1) allows for adjustment of the secondary treatment criteria to reflect site specific considerations. A five-day biochemical oxygen demand limit of twenty-five milligrams per liter (consecutive thirty-day average) may be applied in instances in which limits expressed in terms of secondary treatment standards would be impractical or deemed inappropriate to protect receiving waters.

Effluent Limitations

The department proposes the following effluent limitations for outfalls 001 and 002.

Table 5: Effluent Limitations and Monitoring Requirements **Outfalls 001 and 002**			
	Effluent Limitations		
Parameter	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit
Biological Oxygen Demand (BOD5)	25.0 mg/l	45.0 mg/l	*
Total Suspended Solids (TSS)	30.0 mg/l	45.0 mg/l	*
pH a/	Shall be between 7.0 to 9.0 s.u.		
E. coli b/	126 /100 ml	*	409 /100 ml
Ammonia	Refer to Ammonia Table (Table 6)		
Total Dissolved Solids (TDS) mg/l	*	*	*
Total Phosphorus	*	*	*
Nitrate-Nitrite	*	*	*
Total Kjeldahl Nitrogen (TKN)	*	*	*
Oil & Grease c/	*	*	10.0 mg/l
Oil & Grease visual c/	*	*	Yes/No
Total Days Discharging	*	*	Report Monthly Total
Flow, Receiving Stream	Report Avg. Monthly Value	*	Report Max. Daily Value
Flow Effluent, mgd	Report Avg. Monthly Value	*	Report Max. Daily Value
Total Drain, mgal	*	*	Report Monthly Total
Whole Effluent Toxicity (WET)	See “Whole Effluent Toxicity (WET) Requirements”		
Pretreatment Requirements			
Trace Elements	See “Industrial Waste Management-Sampling and Reporting Requirements”		
*. This item for the stated parameter is not limited. However, the department may impose limitations based on sample history and to protect the receiving waters.			
a/ The pH, an instantaneous limitation, shall be between 7.0 s.u. and 9.0 s.u. Up to 10% of representative samples collected during any three-year period may exceed this range, provided that lethal conditions are avoided.			
b/ *E. coli* limits shall be effective from April 1 through October 31.			
c/ The permittee must not discharge any floating solids, visible foam in other than trace amounts, or oily wastes that produce a sheen or floating oil in the effluent or on the surface of the receiving water. The discharge shall be visibly inspected for sheen or floating oil. If present, grab samples shall be analyzed for oil and grease.			
Stipulations: Dates of discharge and number of excursions shall be included on the Discharge Monitoring Reports. Samples taken in compliance with the monitoring requirements specified in this permit shall be taken prior to leaving the facility property or entering the receiving stream.			

Table 6: Ammonia Effluent Limitations and Monitoring Requirements **Outfalls 001 and 002**

	Effluent Limitations		
Parameter	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit
Ammonia 1/	†	*	‡
Stream flow upstream, cfs 2/	*	*	*
Temperature upstream, ° C 2/, 3/	*	*	*
pH upstream, S.U. 2/, 3/	*	*	*

1/ Calculations must be performed for each discharge sample. If an exceedance is detected on any single sample, the exceedance must be reported on the DMR.

2/ Sample must be collected/ recorded the same day as the ammonia sample. The upstream flow, temperature, and pH may be obtained from the USGS gauging station at Wahpeton, North Dakota.

3/ If the upstream values are not collected then following minimum values base on the 90th percentile upstream STORET and USGS data are to be used: pH: 8.5 S.U., Temperature 23.5 ° C, and ammonia 0.25 mg/l. If the upstream flow is not available then, the 30B10 critical low flow of 131 cfs shall be used. The maximum mixing factor is 10.0%.

† Chronic Standard (Average Monthly Limit)
The 30-day average concentration of total ammonia (expressed as N in mg/L) does not exceed, more often than once every three years on the average, the numerical value given by the following formula; and the highest 4-day average concentration of total ammonia within the 30-day averaging period does not exceed 2.5 times the numerical value given by the following formula:

$$\left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) \bullet CV;$$

where CV = 2.85, when T$\leq$ 14°C; or
$CV = 1.45 * 10^{0.028*(25-T)}$, when T > 14°C.
Receiving stream pH is used for the calculation

‡ Acute Standard (Daily Maximum Limit)
The one-hour average concentration of total ammonia (expressed as N in mg/l) does not exceed, more often than once every three years on the average, the numerical value given by the following formula:

$$\left(\frac{0.411}{1+10^{7.204-pH}} + \frac{58.4}{1+10^{pH-7.204}}\right)$$

where salmonids are absent; or

$$\left(\frac{0.275}{1+10^{7.204-pH}} + \frac{39.0}{1+10^{pH-7.204}}\right)$$

where salmonids are present.

Stipulations

The maximum mixing factor is 10.0%.

SELF-MONITORING REQUIREMENTS

All effluent samples shall be collected at a point following the treatment system and prior to entering the Red River of the North.

Table 7: Self-Monitoring Requirements for **Outfall 001 and 002**

Effluent Parameter	Frequency	Sample Type
BOD5, mg/L	1/Week	Grab
TSS, mg/L	1/Week	Grab
pH	1/Week	Grab
E. coli	1/Week	Grab
Ammonia as N	1/Week	Grab
Total Phosphorus	1/Month	Grab
Nitrate-Nitrite	1/Month	Grab
TKN	1/Month	Grab
Oil and Grease Visual	Daily [a]	Visual
Oil and Grease	Conditional [a]	Grab
TDS, mg/L	1/Week	Grab
WET, TU_a	1/Quarter	Grab
Metals	1/Year	Grab
Total Days Discharging	1/Month	Calculated
Stream flow upstream	1/Day	Instantaneous
Flow Effluent, MGD	Continuous	Recorder
Total Drain, MGAL	1/Month	Calculated

Notes:

a.	The effluent shall be visibly examined daily for a sheen or floating oil. If present, a grab sample shall be analyzed for oil and grease to ensure compliance with the concentration limitations.

SURFACE WATER QUALITY-BASED EFFLUENT LIMITS

The North Dakota State Water Quality Standards (NDAC Chapter 33-16-02.1) are designed to protect existing water quality and preserve the beneficial uses of North Dakota's surface waters. Wastewater discharge permits must include conditions that ensure the discharge will meet the surface water quality standards. Water quality-based effluent limits may be based on an individual waste load allocation or on a waste load allocation developed during a basin wide total maximum daily load (TMDL) study. TMDLs result from a scientific study of the water body and are developed in order to reduce pollution from all sources.

Currently a TMDL has not been developed for this segment of the receiving water body. The Red River is listed as impaired under Section 303(d) for fish consumption and recreation. Fish consumption is impaired by methyl mercury and recreation is impaired by *Escherichia coli*. The impairment is for the Red River of the North from its confluence with the Ottertail River downstream to its confluence with the Whiskey Creek on the MN side. The TMDL priority level for this stream reach is low. The proposed permit includes *E. coli* limits, which will be protective of the Red River and meet the water quality standards.

Numerical Criteria for the Protection of Aquatic Life and Recreation

Numerical water quality criteria are listed in the water quality standards for surface waters (NDAC Chapter 33-16-02.1). They specify the maximum levels of pollutants allowed in receiving water to protect aquatic life and recreation in and on the water. The department uses numerical criteria along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limits, the discharge must meet the water quality-based limits.

Numerical Criteria for the Protection of Human Health

The U.S. EPA has published numeric water quality criteria for the protection of human health that are applicable to dischargers. These criteria are designed to protect humans from exposure to pollutants linked to cancer and other diseases, based on consuming fish and shellfish and drinking contaminated surface waters. The water quality standards also include radionuclide criteria to protect humans from the effects of radioactive substances.

Narrative Criteria

Narrative water quality criteria (NDAC Chapter 33-16-02.1-08) limit concentrations of pollutants from exceeding applicable standards of the receiving waters. The department adopted a narrative biological goal solely to provide an additional assessment method that can be used to identify impaired surface waters.

Antidegradation

The purpose of North Dakota's Antidegradation Policy (NDAC Chapter 33-16-02(Appendix IV)) is to:

- Provide all waters of the state one of three levels of antidegradation protection.
- Determine whether authorizing the proposed regulated activity is consistent with antidegradation requirements.

The department's fact sheet demonstrates that the existing and designated uses of the receiving water will be protected under the conditions of the proposed permit.

Mixing Zones

The department's WQS contain a Mixing Zone and Dilution Policy and Implementation Procedure, NDAC Chapter 33-16-02.1 (Appendix III). This policy addresses how mixing and dilution of point source discharges with receiving waters will be addressed in developing chemical-specific and whole effluent toxicity discharge limitations for point source discharges. Depending upon site-specific mixing patterns and environmental concerns, some pollutants/criteria may be allowed a mixing zone or dilution while others may not. In all cases, mixing zone and dilution allowances shall be limited, as necessary, to protect the integrity of the receiving water's ecosystem and designated uses.

EVALUATION OF SURFACE WATER QUALITY-BASED EFFLUENT LIMITS FOR NUMERIC CRITERIA

Outfall 001: Treated wastewater from Cells 1, 2, and 3.

Outfall 002: Treated wastewater from Cells 5 and 6.

Biochemical Oxygen Demand (BOD5)
Outfalls 001 and 002. The department has reviewed the BOD5 data and the sampling frequency. No excursions occurred for this parameter. A determination was made to continue with the 25 mg/l (30 day arithmetic average) for BOD5 and a 45 mg/l (average weekly limit) with a sampling frequency of weekly based on the previous permit, 40 CFR 133.102(a)(2), and NDAC 33-16-01-14(3)(c)(1).

Total Suspended Solids (TSS)
Outfalls 001 and 002. The department has reviewed the TSS data and the sampling frequency. Three excursions occurred for this parameter with two exceeding the Technical Review Criteria (TRC). A determination was made to continue with the 30 mg/l (30 day arithmetic average) and 45 mg/l (average weekly limit) with a sampling frequency of weekly based on the previous permit, 40 CFR 133.102(b)(1)&(2), and NDAC 33-16-01.

pH
Outfalls 001 and 002. The department has reviewed the pH data and the sampling frequency. No excursions occurred for this parameter. The department proposes to change the pH limits of 6.0 to 9.0, to 7.0 to 9.0. This is in accordance with NDAC § 33-16-02.1, the pH of Class I and IA water bodies "shall remain between 7.0 and 9.0" and 40 CFR 133.103(c).

The department proposes to continue with a sampling frequency of weekly based on the previous permit.

E. coli
Outfalls 001 and 002. The department has conducted a review of the *E. coli* data and the sampling frequency. No excursions occurred for this parameter.

The department proposes to continue with 126 organisms per 100 ml (30 day average geometric mean) and 409 organisms per 100 ml (daily maximum) for E. coli with a sampling frequency of weekly in the proposed permit. This is based upon NDAC 33-16-02.1.

Ammonia as N

Outfalls 001 and 002. The department has conducted a reasonable potential analysis for ammonia as N. Based on this analysis it was determined that there is reasonable potential to exceed the "North Dakota Standards of Quality for Waters of the State" for ammonia as N. See **Appendix C** for a detailed explanation on the criteria used to determine reasonable potential for these outfalls. The department proposes to continue with the ammonia effluent sampling frequency of weekly based on the previous permit.

The department is proposing the following requirements for ammonia as N.

Table 8: Ammonia Effluent Limitations and Monitoring Requirements **Outfalls 001 and 002**

	Effluent Limitations		
Parameter	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit
Ammonia 1/	†	*	‡
Stream flow upstream, cfs 2/	*	*	*
Temperature upstream, ° C 2/, 3/	*	*	*
pH upstream, S.U. 2/, 3/	*	*	*

1/ Calculations must be performed for each discharge sample. If an exceedance is detected on any single sample, the exceedance must be reported on the DMR.

2/ Sample must be collected/ recorded the same day as the ammonia sample. The upstream flow, temperature, and pH may be obtained from the USGS gauging station at Wahpeton, North Dakota.

3/ If the upstream values are not collected then following minimum values base on the 90th percentile upstream STORET and USGS data are to be used: pH: 8.5 S.U., Temperature 23.5 ° C, and ammonia 0.25 mg/l. If the upstream flow is not available then, the 30B10 critical low flow of 131 cfs shall be used. The maximum mixing factor is 10.0%.

† Chronic Standard (Average Monthly Limit)
The 30-day average concentration of total ammonia (expressed as N in mg/L) does not exceed, more often than once every three years on the average, the numerical value given by the following formula; and the highest 4-day average concentration of total ammonia within the 30-day averaging period does not exceed 2.5 times the numerical value given by the following formula:

$$\left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) \bullet CV;$$

where CV = 2.85, when T$\leq$ 14°C; or
CV = 1.45 *$10^{0.028*(25-T)}$, when T > 14°C.
Receiving stream pH is used for the calculation

‡ Acute Standard (Daily Maximum Limit)
The one-hour average concentration of total ammonia (expressed as N in mg/l) does not exceed, more often than once every three years on the average, the numerical value given by the following formula:

Table 8: Ammonia Effluent Limitations and Monitoring Requirements **Outfalls 001 and 002**			
	Effluent Limitations		
Parameter	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit
$\frac{(0.411}{(1+10^{7.204-pH}} + \frac{58.4)}{1+10^{pH-7.204}}$ where salmonids are absent; or $\frac{(0.275}{(1+10^{7.204-pH}} + \frac{39.0)}{1+10^{pH-7.204}}$ where salmonids are present.			
Stipulations The maximum mixing factor is 10.0%.			

The previous permit contained trigger values for ammonia of a monthly average of 2.38 mg/l and a daily maximum value of 5.83 mg/l. If the ammonia result was above these values, the permittee would need to calculate the instream ammonia limit. The department reviewed the ammonia data from October 1, 2011 through February 29, 2016 and there were no exceedances for instream ammonia.

The department is proposing to remove the trigger values and incorporate instream limitations for ammonia utilizing the equations provided in NDAC 33-16-02.1. The permittee will need to calculate the instream ammonia limitation for each sample taken during periods of discharge. If a sample results exceeds the calculated limit, each exceedance must be reported on the DMR.

Oil and Grease Visual
Outfalls 001 and 002. The department has reviewed the oil and grease visual data and the frequency. No excursions occurred for this parameter. The department proposes to continue with the oil and grease visual requirement of weekly and report if present based on the previous permit and NDAC 33-16-02.1.

Oil and Grease
Outfalls 001 and 002. The department has reviewed the oil and grease data and the sampling frequency. No excursions occurred for this parameter. The department proposes to continue with a conditional limit of 10.0 mg/l for oil and grease with a sampling frequency of weekly based on the previous permit.

Total Dissolved Solids (TDS)
Outfalls 001 and 002. The department has concerns about the concentration of total dissolved solids (TDS) in this reach of the Red River. A Total Maximum Daily Load (TMDL) may be needed in this reach of the Red River as well. In the interim, the department is continuing to require that the effluent be sampled for TDS. This will provide us with additional data to determine the cities overall TDS contribution to the Red River. This is based upon 33-16-02.1, in that discharges may not impair existing or reasonable beneficial uses of the receiving waters.

The department has reviewed the TDS data and the sampling frequency. The department proposes to continue the sampling requirements for TDS with a sampling frequency of weekly based on the previous permit.

Human Health
The department determined the applicant's discharge is unlikely to contain chemicals regulated to protect human health. The department will re-evaluate this discharge for impacts to human health at the next permit reissuance.

Whole Effluent Toxicity
Outfalls 001 and 002: The department has conducted a reasonable potential analysis for whole effluent toxicity (WET). Based on this analysis, it was determined that there is reasonable potential to exceed the acute standard of 0.3 Toxic Units (TUa). See **Appendix C** for a detailed explanation on the criteria used to determine reasonable potential for this outfall.

The data set consisted of 10 tests and indicated one (1) occurrence of toxicity to the *Pimephales promelas*, while no occurrences of toxicity occurred to the *Ceriodaphnia dubia*. There was one (1) exceedance for TUa for testing done on *Pimephales promelas*.

On 04/09/2010 the department granted Wahpeton's request to reduce its quarterly acute toxicity requirements to alternating species between *Ceriodaphnia dubia* and *Pimephales promelas*. On 11/20/2015, the department revoked the provision to allow for alternating species due to a failed toxicity test on 06/15/2015.

The department is proposing to increase the sampling frequency from semiannually to quarterly, based on best professional judgment.

The department is proposing the following requirements for WET.

Acute Toxicity Testing

Table 9: WET requirements for **Outfall 001**						
Implementation	Limitations Imposed					
Effluent Dilution	0%(Control)	12.5%	25%	50%	75%	100%
Dilution Water	**Red River of the North**					
Testing Type	Acute Toxicity					
Species and Test Type	*Ceriodaphnia dubia* 48 Hour Acute Static Renewal 20ºC					
	Pimephales promelas 96 Hour Acute Static Renewal 20°C					
Endpoint	Survival reported as TUa					
Compliance Point	End of pipe					
Sample Frequency	1/Quarter					
Sample Type	Grab					
Maximum Daily Limit (MDL)	<1 TUa					
Average Monthly Limit (AML)	<1 TUa					
Test Failure	The 48 hour LC50 effluent value must be <1 TUa to indicate a passing test. Any 48 hour LC50 effluent value >1 TUa will constitute a failure. Tests in which the control survival is less than 90% are invalid and must be repeated.					
Reporting Requirements	The permittee shall report the following results of each toxicity test on the DMR for that reporting period: Report the highest TUa for *Ceriodaphnia dubia*, Parameter No. TSM3B. Report the highest TUa for *Pimephales promelas*, Parameter No. TSN6C.					

When possible, sampling shall be done when outfall 002 is in operation.

If toxicity occurs in a routine test, an additional test shall be initiated within 14 days from the date of the initial toxicity findings. Should there be no discharge during a specified sampling time frame; sampling shall be performed as soon as there is a discharge. Should toxicity occur in the second test, testing shall be conducted at a frequency of once a month and the implementation of a 5.Toxicity Reduction Evaluation (TRE) shall be determined by the department. If no toxicity is found in the second test, testing shall occur as outlined in the permit.

The department is proposing to continue with TUa of less than 1 (<1) in order to meet the requirements of N.D.A.C. 33-16-02.1-08(a)(4), which states that "[a]ll waters of the state shall be:…Free from substances attributable to municipal, industrial, or other discharges or agricultural practices in concentrations or combinations which are toxic or harmful to humans, animals, plants, or resident aquatic biota. For surface water, this standard will be enforced in part through appropriate whole effluent toxicity requirements in North Dakota pollutant discharge elimination system permits." This limit will need to be met at the end-of-pipe with no allowance for a zone of initial dilution (ZID), in accordance with N.D.A.C. 33-16-02.1, Appendix III, which states: "Acute whole effluent toxicity (WET) limits shall be achieved at the end-of-pipe with no allowance for a ZID."

Acute toxicity test requirements are set out in the latest revision of *"Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms,*" EPA-821-R-02-012 (Fifth Ed., October 2002).

Biosolids
Currently the department does not have the authority to regulate biosolids. Therefore, you are required under the Direct Enforceability provision of 40 CFR §503.3(b) to meet the applicable requirements of the regulation.

Test Procedures
The collection and transportation of all samples shall conform to EPA preservation techniques and holding times. All laboratory tests shall be performed by a North Dakota certified laboratory in conformance with test procedures pursuant to 40 CFR 136, unless other test procedures have been specified or approved by EPA as an alternate test procedure under 40 CFR 136.5. The method of determining the total amount of water discharged shall provide results within 10 percent of the actual amount.

OTHER PERMIT CONDITIONS

Special Conditions

Comprehensive Water Resource Management Plan
The department is proposing to continue with the Comprehensive Water Resource Management Plan based upon the WQS and best professional judgment in order to maintain the designated use criteria of the Red River of the North for downstream users.

The plan is designed to evaluate and implement management strategies aimed at maintaining designated use criteria and providing optimal quality for growing water supply demands on the Red River. At a minimum the permittee must coordinate their discharge activities with those of other dischargers in the area to minimize the cumulative impact on the Red River from all discharges in the Wahpeton area.

Contingency Plan
The department proposes to continue with the Contingency Plan based upon WQS and best professional judgment in order to maintain the designated use criteria of the Red River of the North for downstream users.

The department proposes to remove the table which address discharge rates, receiving stream flow, and ammonia due to changing the ammonia limit to instream limits. Upon review of the ammonia criteria during the previous permit cycle (refer to the ammonia subsection of the **Evaluation of Surface Water Quality-Based Effluent Limits for Numeric Criteria** above) no instream violations of ammonia occurred.

Predischarge Protocol
Approximately one week prior to discharge, the permittee shall notify Cargill Wahpeton, Minn Dak Farmers Cooperative, the department, the water treatment plants at Fargo, North Dakota; and Moorhead, Minnesota; of plans to discharge and the expected duration of the discharge.

The department is proposing to remove the requirement of the department reviewing the pre-discharge samples prior to the permittee discharging. The permittee will still need to provide to following data to the department: BOD_5, total suspended solids, pH, *E. coli*, ammonia, and total dissolved solids. The department is also requiring, at the time of discharge notification, the following upstream river values: pH, ammonia, temperature in C, and the river stream flow from the USGS gauging station 05051500.

The pre-discharge review is proposed to be removed due to the permit giving the permittee the authorization to discharge, the permittee having to meet the permit conditions in order to maintain compliance with the permit, and based upon best professional judgment.

Sampling of the Discharge
An effluent sample shall be collected during the first seven days of the discharge, and another effluent sample after the seventh day of the discharge and every seven days thereafter.

Pretreatment

On the application Form 2A, the permittee indicated that there are three (3) non-categorical significant industrial users (SIUs). The non-categorical SIUs are Sony Labs, ComDel Innovation Properties (CDI), and Cargill Corn Milling. The permittee only accepts domestic waste from Cargill Corn Milling, while Cargill discharges their treated process wastewater directly to the Red River of the North, under an individual NDPDES permit (ND0026000). Upon further review, CDI was determined to be a categorical SIU, subject to pretreatment regulations.

By Cargill only sending their domestic waste to the permittee, the City of Wahpeton has one (1) non-categorical SIU, Sony Labs, and one (1) categorical SIU, CDI.

Sony Labs is a snack food processor. Sony Labs discharges an average of 10,877 gallons per day (gpd) of process waste water and 216 gpd of non-process wastewater to the City of Wahpeton.

CDI is a metal finisher. CDI discharges an average of 24,755 gpd of combined process and non-process wastewater. The two waste streams are combined prior to entering the City of Wahpeton's sanitary system. CDI is considered a categorical SIU, subject to the pretreatment standards outlined in 40 CFR 433. CDI is a permitted facility under the department's pretreatment program, with an NDPDES permit (NDP000099).

Pretreatment Requirements-Outfalls 001 and 002
This permit shall contain the pretreatment requirements for Industrial Waste Management for Majors with a Non Approved Pretreatment Program. The permit shall require the permittee to sample and analyze the effluent from Outfall 001 and 002 for those parameters listed in the "Sampling and Reporting Requirements" in the Industrial Waste Management section. This requirement is based on 40 CFR 122.44(j).

Upstream Self Monitoring Requirements-Calcium Carbonate Hardness
The department is continuing to require upstream monitoring requirements for total hardness as calcium carbonate when sampling for the parameters listed in the Industrial Waste Management section at outfalls 001 and 002. This will allow the department to better assess the potential impacts of specific parameters whose toxicity is directly related to total hardness of the receiving stream. This requirement is based on NDAC 33-16-02.1.

The permittee shall comply with the following upstream limitations and self monitoring requirements when sampling for the parameters listed in the Industrial Waste Management section for outfalls 001 and 002.

Table 10: Upstream Self Monitoring Requirements for Calcium Carbonate Hardness

Parameter	30 Day Ave Maximum	7 Day Ave Maximum	Sample Frequency	Sample Type
Total Hardness as CaCO3 a/	*	*	Yearly	Grab

* Currently no 30 day average or 7 day maximum limits apply at this time.
a/ This sample shall be taken in the Red River upstream of the discharge that was sampled for the parameters listed in the Industrial Waste Management section.

The department has reviewed the data for the following parameters and the sampling frequency: Antimony, Total; Arsenic, Total; Beryllium, Total; Cadmium, Total; Chromium, Total; Copper, Total; Lead, Total; Mercury, Total; Nickel, Total; Selenium, Total; Silver, Total; Thallium, Total; Zinc, Total; Cyanide, Total; Phenols, Total; and Molybdenum, Total.

See **Appendix C** for a detailed explanation on the evaluation of these parameters.

Due to not enough data being available to do an accurate reasonable potential analysis, a reasonable potential analysis was not conducted for metals during this permit reissuance. A determination was made to continue with the monitoring for the parameters listed in the Industrial Waste Management section with a sampling frequency of yearly based on the previous permit.

Pretreatment Program Assessment
The department's Pretreatment Program Coordinator will be working with the city to evaluate whether the current pretreatment controls are adequate. This may result in additional controls and/or the development of an approved pretreatment program.

Other Conditions

Ammonia Reduction Plan
The permittee shall develop a plan to address the increased ammonia levels in the effluent. Though there were no instream violations for ammonia, the department noted an increasing trend in ammonia levels while reviewing the ammonia data (**Appendix C**). The Ammonia Reduction Plan shall be due no later than October 1, 2017.

PERMIT ISSUANCE PROCEDURES

Permit Modifications

The department may modify this permit to impose numerical limits, if necessary to comply with water quality standards for surface waters, with sediment quality standards, or with water quality standards for ground waters, based on new information from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

The department may also modify this permit to comply with new or amended state or federal regulations.

Proposed Permit Issuance

This proposed permit meets all statutory requirements for the department to authorize a wastewater discharge. The permit includes limits and conditions to protect human health and aquatic life, and the beneficial uses of waters of the State of North Dakota. The department proposes to issue this permit for a term of five (5) years.

APPENDIX A - PUBLIC INVOVLEMENT INFORMATION

The department proposes to reissue a permit to **Wahpeton, City of**. The permit includes wastewater discharge limits and other conditions. This fact sheet describes the facility and the department's reasons for requiring permit conditions.

The department will place a Public Notice of Draft on **July 25, 2016** in **The Forum and the Wahpeton Daily News** to inform the public and to invite comment on the proposed draft North Dakota Pollutant Discharge Elimination System permit and fact sheet.

The Notice –

- Tells where copies of the draft permit and fact sheet are available for public evaluation.
- Offers to provide assistance to accommodate special needs.
- Urges people to submit their comments before the end of the comment period.
- Informs the public that if there is significant interest, a public hearing will be scheduled.

You may obtain further information from the department by telephone, 701.328.5210 or by writing to the address listed below.

North Dakota Department of Health
Division of Water Quality
918 East Divide Avenue, 4th Floor
Bismarck, ND 58501

The primary author of this permit and fact sheet is Patrick Schuett.

North Dakota Department of Health Public Notice
Reissue of an NDPDES Permit

Public Notice Date: 7/25/2016 Public Notice Number: ND-2016-032

Purpose of Public Notice

The Department intends to reissue the following North Dakota Pollutant Discharge Elimination System (NDPDES) Discharge Permit under the authority of Section 61-28-04 of the North Dakota Century Code.

Permit Information

Application Date: 4/4/2016 Application Number: ND0020320

Applicant Name: Wahpeton City Of

Mailing Address: PO Box 490, Wahpeton, ND 58074

Telephone Number: 701.642.6565

Proposed Permit Expiration Date: 9/30/2021

Facility Description

The reapplication is for five waste stabilization ponds which service the City of Wahpeton. The discharge facility is located in the SE1/4 of Section 28, Township 133 North, Range 47 West, and the NE1/4 of Section 17, Township 133 North, Range 47 West. All discharges would be to the Red River of the North, a Class I stream.

Tentative Determinations

Proposed effluent limitations and other permit conditions have been made by the Department. They assure that State Water Quality Standards and applicable provisions of the FWPCAA will be protected.

Information Requests and Public Comments

Copies of the application, draft permit, and related documents are available for review. Comments or requests should be directed to the ND Dept of Health, Div of Water Quality, 918 East Divide Ave, Bismarck ND 58501-1947 or by calling 701.328.5210.

All comments received by August 26, 2016 will be considered prior to finalizing the permit. If there is significant interest, a public hearing will be scheduled. Otherwise, the Department will issue the final permit within sixty (60) days of this notice. If you require special facilities or assistance relating to a disability, call TDD at 1.800.366.6868.

APPENDIX B – DEFINITIONS

DEFINITIONS Standard Permit BP 2013.12.31

1. "**Act**" means the Clean Water Act.

2. "**Average monthly discharge limitation**" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

3. "**Average weekly discharge limitation**" means the highest allowable average of "daily discharges" over 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.

4. "**Best management practices**" (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.

5. "**Bypass**" means the intentional diversion of waste streams from any portion of a treatment facility.

6. "**Composite**" sample means a combination of at least 4 discrete sample aliquots, collected over periodic intervals from the same location, during the operating hours of a facility not to exceed a 24 hour period. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater.

7. "**Daily discharge**" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

8. "**Department**" means the North Dakota Department of Health, Division of Water Quality.

9. "**DMR**" means discharge monitoring report.

10. "**EPA**" means the United States Environmental Protection Agency.

11. "**Geometric mean**" means the n^{th} root of a product of n factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.

12. "**Grab**" for monitoring requirements, means a single "dip and take" sample collected at a representative point in the discharge stream.

13. "**Instantaneous**" for monitoring requirements, means a single reading, observation, or measurement. If more than one sample is taken during any calendar day, each result obtained shall be considered.

14. "**Maximum daily discharge limitation**" means the highest allowable "daily discharge."

15. **"Salmonid"** means of, belonging to, or characteristic of the family Salmonidae, which includes the salmon, trout, and whitefish.

16. "**Sanitary Sewer Overflows (SSO)**" means untreated or partially treated sewage overflows from a sanitary sewer collection system.

17. "**Severe property damage**" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

18. "**Total drain**" means the total volume of effluent discharged.

19. "**Upset**" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

DEFINITIONS Whole Effluent Toxicity (WET) BP 2010.03.24

20. "**Acute toxic unit"** ("TUa") is a measure of acute toxicity. TUa is the reciprocal of the effluent concentration that causes 50 percent of the organisms to die by the end on the acute exposure period (i.e., 100/"LC50").

21. "**Chronic toxic unit"** ("TUc") is a measure of chronic toxicity. TUc is the reciprocal of the effluent concentration that causes no observable effect on the test organisms by the end of the chronic exposure period (i.e., 100/"NOEC").

22. "**Inhibition concentration**", ("IC"), is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., Interpolation Method).

23. "**LC50**" means the concentration of toxicant (e.g., effluent) which is lethal to 50 percent of the organisms exposed in the time period prescribed by the test.

24. "**No observed effect concentration**", ("NOEC"), is the highest concentration of toxicant (e.g., effluent) to which organisms are exposed in a chronic toxicity test [full life-cycle or partial life-cycle (short term) test], that causes no observable adverse effects on the test organisms (i.e., the highest concentration of effluent in which the values for the observed responses are not statistically significantly different from the controls).

APPENDIX C – DATA AND TECHNICAL CALCULATIONS

DFLOW

The department obtained stream flow data from USGS site 05051500 from January 1, 2005 to April 3, 2016. Below are the critical low flows calculated by the DFLOW (3.1b).

DFLOW 1B3 (ACUTE)	99.9	CFS
DFLOW 4B3 (CHRONIC)	104	CFS
DFLOW 1Q10 (ACUTE)	126	CFS
DFLOW 7Q10 (CHRONIC)	162	CFS
DFLOW 30B10 (AMMONIA)	131	CFS

Reasonable Potential

Ammonia

The reasonable potential determination for ammonia is provided below. The determination is conducted utilizing the Technical Support Document For Water Quality-based Toxics Control, EPA/505/2-90-001, March 1991 (TSD; March 1991). The coefficient of variation used was 1.2.

Receiving Water Concentration (RWC)
Reasonable Potential (RP)
Determination

Technical Support Document (TSD) For Water Quality-based Toxics Control
EPA/505/2-90-001; March 1991

Facility Name:	Wahpeton, City of	Receiving Stream:	Red River of the North
NDPDES Permit:	ND0020320	1Q10 Acute	126 cfs
Daily Maximum Flow (mgd):	15.00	1B3 Acute	99.9 cfs
Daily Average Flow (mgd):	10.10	7Q10 Chronic	162 cfs
Stream Design Mixing:	10.0%	30B10 Chronic	131 cfs
Statistical Multiplier:	1.9		
Upstream Concentration:	0.2500 mg/l		**Parameter:**
Effluent Concetration (max):	28.3000 mg/l		**Ammonia**

$$RWC = \frac{(StatQeCe)+(Cs(pmf)Qs)}{Qe+(pmf)Qs}$$

Outfall: **001 and 002**

RWC = Receiving water concentration, the resultant magnitude of concentration in the receiving water after effluent discharge concentration (also known as the in-stream waste concentration)
Stat = Statistical multiplier for effluent parameter (Table 3-1 and 3-2; page 57 of the TSD)
Qe = Effluent Design Flow
Ce = Highest effluent concentration reported.
pmf = Partial mix factor, percent of Qs allowed for mixing by State authority.
Qs = Receiving Water Flow (1Q10 or 1B3 for acute and 7Q10 or 4B3 for chronic)
Cs = Background concentration of the receiving water.

Qe - Acute	15.00	mgd	Qs - 1Q10	81.40	mgd
Qe - Chronic	10.10	mgd	Qs - 1B3	64.54	mgd
Ce	28.3000	mg/l	Qs - 7Q10	104.65	mgd
Cs	0.2500	mg/l	Qs - 30B10	84.63	mgd
Stat	1.90				
pmf	10.0%				

Acute RP			Chronic RP		
RWC - 1Q10	34.9438	mg/l	RWC - 7Q10	26.5348	mg/l
RWC - 1B3	37.6704	mg/l	RWC - 30B10	29.3705	mg/l

Criterion Maximum Concentration (CMC)		Criterion Continuous Concentration (CCC)	
Acute Criterion	3.2 mg/l	Chronic Criterion	1.5300 mg/l

If the calculated RWC is greater than its respective criterion then there is RP and if RWC is less than the criterion then there is no RP.

CMC RP Present:		**CCC RP Present:**	
1Q10 Acute OR	**YES**	**7Q10 Chronic OR**	**YES**
1B3 Acute	**YES**	**30B10 Chronic**	**YES**

The North Dakota State Water Quality Standards (WQS) Chapter 33-16-02.1 use biologically based design and harmonic mean flows to determine Water Quality Based Effluent Limits (WQBELs) and Whole Effluent Toxicity (WET) limits.

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It was determined that there is a reasonable potential for the facility to cause an exceedance for ammonia. The department determined to use the equation provided in NDAC 33-16-02.1 instead of calculating an average monthly limit and a daily maximum limit.

The ammonia criteria used in the reasonable potential analysis was determined using the 90th percentile ammonia concentration obtained from STORET and upstream monitoring results (07/01/2011 through 12/31/2015). The receiving stream flow was the 30B10 critical low flow (131 cfs) determined by DFLOW utilizing data from the USGS site 05051500. The receiving stream temperature (23.50 °C) and pH (8.5 S.U.) was the 90th percentile from available STORET and USGS upstream sites from 1971 to 03/2016.

Whole Effluent Toxicity
The reasonable potential determination for whole effluent toxicity is provided below. The determination is conducted utilizing the Technical Support Document For Water Quality-based Toxics Control, EPA/505/2-90-001, March 1991 (TSD; March 1991). The coefficient of variation used was 0.6.

Whole Effluent Toxicity (WET)
Resonable Potential (RP)
Determination

Technical Support Document (TSD) For Water Quality-based Toxics Control
EPA/505/2-90-001; March 1991

Facility Name:	Wahpeton, City of	Receiving Stream:	Red River of the North
NDPDES Permit:	ND0020320	1Q10 Acute	126 cfs
Effluent Flow (mgd):	15.000	1B3 Acute	99.9 cfs
Stream Design Mixing:	10.0%	7Q10 Chronic	162 cfs
WET TUa (max):	1.46	4B3 Chronic	104 cfs
ACR:			
Statistical Multiplier:	1.7		

$$RWC = \frac{StatQeCe}{Qe+(pmf)Qs}$$

Outfall: 001 and 002

RWC = Receiving water concentration, the resultant magnitude of toxicity in the receiving water after effluent discharge in TUs (also known as the in-stream waste concentration)
Stat = Statistical multiplier for effluent parameter (Table 3-1 and 3-2; page 57 of the TSD)
Qe = Effluent Design Flow
Ce = Highest Toxicity Unit (TU) reported. (Use 1 if no WET data is available.)
pmf = Partial mix factor, percent of Qs allowed for mixing by State authority.
Qs = Receiving Water Flow (1Q10 or 1B3 for acute and 7Q10 or 4B3 for chronic)

Qe	15.000	mgd	Qs - Acute	81.396	mgd
Ce	1.46	TU	Qs - Acute 1B3	64.535	mgd
pmf	10.0%		Qs - Chronic	104.652	mgd
Stat	1.7		Qs - Chronic 4B3	67.184	mgd
ACR	0.00				

Acute RP			Chronic RP		
RWC - 1Q10	1.61	TUa	RWC - 7Q10	0.00	TUc
RWC - 1B3	1.74	TUa	RWC - 4B3	0.00	TUc

Criterion Maximum Concentration (CMC)			Criterion Continuous Concentration (CCC)		
Acute Criterion	0.3	TUa	Chronic Criterion	N/A	TUc

If the calculated RWC is greater than its respective criterion then there is RP and if RWC is less than the criterion then there is no RP.

CMC RP Present:		**CCC RP Present:**	
1Q10 Acute OR	**YES**	**7Q10 Chronic OR**	**NO**
1B3 Acute	**YES**	**4B3 Chronic**	**NO**

The North Dakota State Water Quality Standards (WQS) Chapter 33-16-02.1 use biologically based design flows to determine Whole Effluent Toxicity (WET) limits for acute and chronic endpoints.

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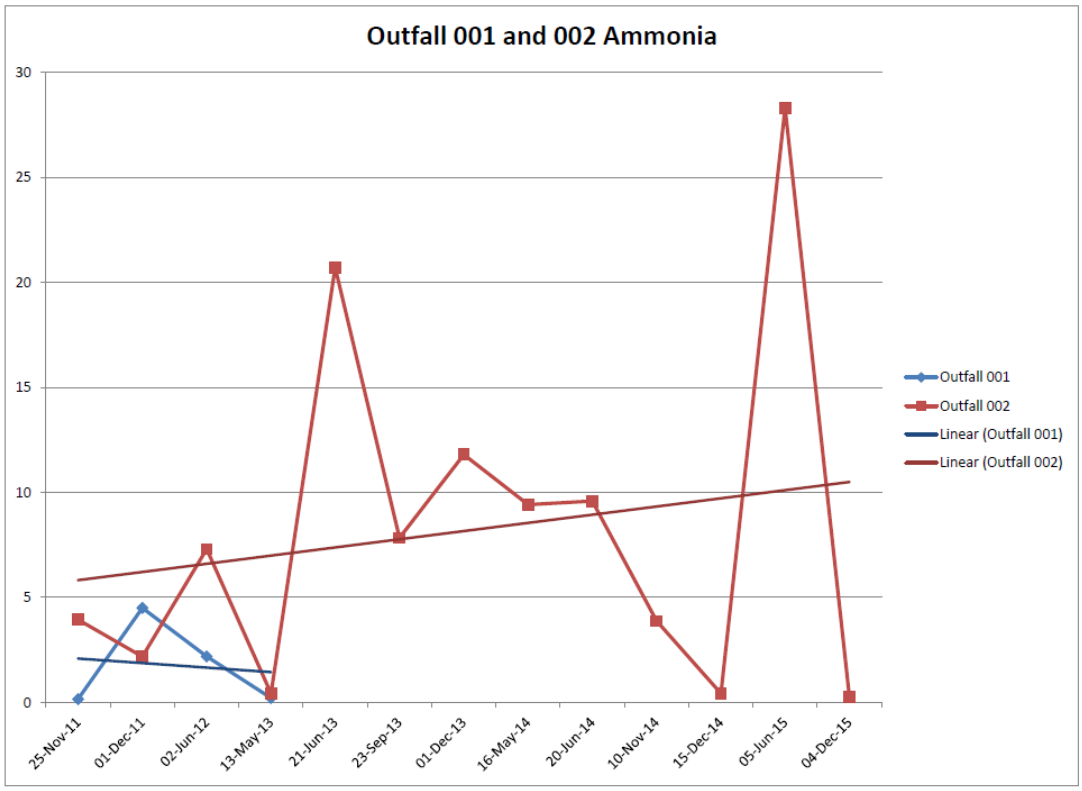
Ammonia Review

The while reviewing the ammonia data for the past permit cycle, the department created the graph below to determine ammonia trends.



The ammonia levels for outfall 001 appear to hold at consistent levels. For outfall 002 ammonia concentrations have an increasing trend. The increasing trend for ammonia is concerning because ammonia can have toxic effects (narrative water quality standard violation) without causing a numeric water quality standard violation. This trend is the basis for requiring the permittee to submit an ammonia reduction plan to the department.

Metals Review

The department reviewed the metals sample results from outfall 001 and outfall 002 for the potential to cause exceedances of the water quality standards. There was not enough data during this permit reissuance cycle to conduct an accurate reasonable potential. Below is the review of the highest metal levels compared to the water quality standards.

The NDDoH has developed the following tool to evaluate a single sample result to the North Dakota Standards of Quality for Waters of the State. A detailed explanation of the calculations and limits for the parameters listed can be found in ch 33-16-02.1-9 Table 1, 01/2007.

Parameters indicated as "HD-Hardness Dependent" are less toxic as the calcium carbonate hardness of the receiving stream increases. The calcium carbonate hardness of the effluent or the receiving stream is entered above. A hardness value in grains per gallon can also be entered.

Items in bold or an * indicate a parameter that needs further evaluation. Parameters listed above must be analyzed using an EPA approved method that has a detection limit at or below the limits as listed in the current version of the North Dakota Standards of Quality for Waters of the State ch33-16-02.

Facility Name			Wahpeton City of			Print Date:		4/27/2016	
Location			Outfall 001			Below are the current or calculated acute and chronic standards based on the data entered.			
Enter Grains/Gallon or				0					
Hardness - Total (CaCO3) mg/l				263					
Multiplying Factor:				1.0					
Enter Concentration Values						µg/l		µg/l	
Parameter		Detect	mg/l	µg/l	µg/l	Acute		Chronic	
Antimony				2	**2**				
Arsenic				2.3	**2.3**	340		150	
Beryllium				0.5	**0.5**				
Cadmium	HD			0.1	**0.1**	5.7		0.55	
Chromium - Total				2.9	**2.9**				
Chromium (III)	HD				0	3981		190	
Chromium (VI)					0	16		11	
Copper	HD			7	**7**	35		21.3	
Lead	HD			1.1	**1.1**	280		21.3	
Mercury				0.2	**0.2**	1.7		**0.012**	
Molybdenum - Total				8.6	**8.6**				
Nickel	HD			12.4	**12.4**	1063		118.2	
Selenium				5	**5**	20		**5**	
Silver	HD			0.5	**0.5**	20			
Thallium				0.1	**0.1**				
Zinc	HD			50	**50**	272		271.9	
Cyanide - Total				0.005	**0.005**	22		5.2	
Phenols				15.7	**15.7**				

Comments:
The maximum values reported for each parameter from outfall 001 discharges that occurred from 10/01/2011-02/29/2016 were used. Non-detects were entered at the detection limit value.

Antimony: The highest reported result was below method detect.

Selenium: The highest reported result was below method detect.

The NDDoH has developed the following tool to evaluate a single sample result to the North Dakota Standards of Quality for Waters of the State. A detailed explanation of the calculations and limits for the parameters listed can be found in ch 33-16-02.1-9 Table 1, 01/2007.

Parameters indicated as "HD-Hardness Dependent" are less toxic as the calcium carbonate hardness of the receiving stream increases. The calcium carbonate hardness of the effluent or the receiving stream is entered above. A hardness value in grains per gallon can also be entered.

Items in bold or an * indicate a parameter that needs further evaluation. Parameters listed above must be analyzed using an EPA approved method that has a detection limit at or below the limits as listed in the current version of the North Dakota Standards of Quality for Waters of the State ch33-16-02.

Facility Name			Wahpeton City of			Print Date:		4/27/2016		
Location			Outfall 002			Below are the current or calculated acute and chronic standards based on the data entered.				
Enter Grains/Gallon or				0						
Hardness - Total (CaCO3) mg/l				232						
Multiplying Factor:				1.0						
Enter Concentration Values						µg/l		µg/l		
Parameter		Detect	mg/l	µg/l	µg/l	Acute		Chronic		
Antimony				2	**2**					
Arsenic				3.9	**3.9**	340		150		
Beryllium				5	**5**					
Cadmium	HD			1	**1**	5.0		0.50		
Chromium - Total				4.8	**4.8**					
Chromium (III)	HD				0	3592		172		
Chromium (VI)					0	16		11		
Copper	HD			7.7	**7.7**	31		19.1		
Lead	HD			1	**1**	238		19.1		
Mercury				0.2	**0.2**	1.7		**0.012**		
Molybdenum - Total				7	**7**					
Nickel	HD			14.4	**14.4**	956		106.3		
Selenium				2	**2**	20		5		
Silver	HD			0.5	**0.5**	16				
Thallium				2	**2**					
Zinc	HD			50	**50**	244		244.5		
Cyanide - Total				0.02	**0.02**	22		5.2		
Phenols				11	**11**					

Comments:
The maximum values reported for each parameter from outfall 002 discharges that occurred from 10/01/2011-02/29/2016 were used. Non-detects were entered at the detection limit value.

Antimony: Sample results were below method detect.

Beryllium: Sample results were below method detect.

Cadmium: Sample results were below method detect.

Lead: Sample results were below method detect.

Mecury: Sample results were below method detect.

Selenium: Sample results were below method detect.

Silver: Sample results were below method detect.

Thallium: Sample results were below method detect.

Zinc: Sample results were below method detect.

Cyanide: Sample results were below method detect.

APPENDIX D – RESPONSE TO COMMENTS

Responses to comments received during the public comment period will be placed here.

Permit No: ND0020320
Effective Date: October 1, 2016
Expiration Date: September 30, 2021

AUTHORIZATION TO DISCHARGE UNDER THE

NORTH DAKOTA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with Chapter 33-16-01 of the North Dakota Department of Health rules as promulgated under Chapter 61-28 (North Dakota Water Pollution Control Act) of the North Dakota Century Code,

The City of Wahpeton

is authorized to discharge from its waste stabilization ponds

to the Red River of the North

provided all the conditions of this permit are met.

This permit and the authorization to discharge shall expire at midnight,

September 30, 2021.

Signed this _____ day of _____, _____.

_____

Karl H. Rockeman, P.E.
Director
Division of Water Quality

BP 2014.06.12

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TABLE OF CONTENTS

DEFINITIONS

DEFINITIONS Standard Permit BP 2013.12.31

1. "**Act**" means the Clean Water Act.

2. "**Average monthly discharge limitation**" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

3. "**Average weekly discharge limitation**" means the highest allowable average of "daily discharges" over 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.

4. "**Best management practices**" (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.

5. "**Bypass**" means the intentional diversion of waste streams from any portion of a treatment facility.

6. "**Composite**" sample means a combination of at least 4 discrete sample aliquots, collected over periodic intervals from the same location, during the operating hours of a facility not to exceed a 24 hour period. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater.

7. "**Daily discharge**" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

8. "**Department**" means the North Dakota Department of Health, Division of Water Quality.

9. "**DMR**" means discharge monitoring report.

10. "**EPA**" means the United States Environmental Protection Agency.

11. "**Geometric mean**" means the n^{th} root of a product of n factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.

12. "**Grab**" for monitoring requirements, means a single "dip and take" sample collected at a representative point in the discharge stream.

13. "**Instantaneous**" for monitoring requirements, means a single reading, observation, or measurement. If more than one sample is taken during any calendar day, each result obtained shall be considered.

14. "**Maximum daily discharge limitation**" means the highest allowable "daily discharge."

15. **"Salmonid"** means of, belonging to, or characteristic of the family Salmonidae, which includes the salmon, trout, and whitefish.

16. "**Sanitary Sewer Overflows (SSO)**" means untreated or partially treated sewage overflows from a sanitary sewer collection system.

17. "**Severe property damage**" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

18. "**Total drain**" means the total volume of effluent discharged.

19. "**Upset**" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

DEFINITIONS Whole Effluent Toxicity (WET) BP 2010.03.24

20. "**Acute toxic unit"** ("TUa") is a measure of acute toxicity. TUa is the reciprocal of the effluent concentration that causes 50 percent of the organisms to die by the end on the acute exposure period (i.e., 100/"LC50").

21. "**Chronic toxic unit"** ("TUc") is a measure of chronic toxicity. TUc is the reciprocal of the effluent concentration that causes no observable effect on the test organisms by the end of the chronic exposure period (i.e., 100/"NOEC").

22. "**Inhibition concentration**", ("IC"), is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., Interpolation Method).

23. "**LC50**" means the concentration of toxicant (e.g., effluent) which is lethal to 50 percent of the organisms exposed in the time period prescribed by the test.

24. "**No observed effect concentration**", ("NOEC"), is the highest concentration of toxicant (e.g., effluent) to which organisms are exposed in a chronic toxicity test [full life-cycle or partial life-cycle (short term) test], that causes no observable adverse effects on the test organisms (i.e., the highest concentration of effluent in which the values for the observed responses are not statistically significantly different from the controls).

OUTFALL DESCRIPTIONS

Outfall 001. Active. Final Outfall. South Site.			
Latitude: 46.29999944000	Longitude: -96.6011427200	County: Richland	
Township: 133	Range: 47	Section: 28	QQ: DBC
Receiving Stream: Red River of the North		Classification: I	
Outfall Description: This is the outfall from Cells 1, 2, and 3.			

Outfall 002. Active. Final Outfall. North Site.			
Latitude: 46.3373391600	Longitude: -96.6215379600	County: Richland	
Township: 133	Range: 47	Section: 17	QQ: ABB
Receiving Stream: Red River of the North		Classification: I	
Outfall Description: This is the outfall from Cells 5 and 6.			

PERMIT SUBMITTALS SUMMARY

Coverage Point	Submittal	Frequency	First Submittal Date
001A	Discharge Monitoring Report	1/Month	01/31/2017
002A	Discharge Monitoring Report	1/Month	01/31/2017
001W	Discharge Monitoring Report	1/3 Months	01/31/2017
002W	Discharge Monitoring Report	1/3 Months	01/31/2017
001Y	Discharge Monitoring Report	1/Year	10/31/2017
002Y	Discharge Monitoring Report	1/Year	10/31/2017
Application Renewal	NPDES Application Renewal	1/permit cycle	04/01/2021
Pretreatment	Pretreatment Program Assessment	1/permit cycle	09/30/2019
Special Conditions	Ammonia Reduction Plan	1/permit cycle	10/01/2017

SPECIAL CONDITIONS

Pretreatment Program Assessment
The Department's Pretreatment Program Coordinator will be working with the city in evaluating its current pretreatment controls to determine whether there is a need for the development of an approved pretreatment program.

Comprehensive Water Resource Management Plan
The permittee shall be involved in the ongoing review of the comprehensive water resource management plan involving the reach of the Red River from Wahpeton to Fargo. The plan is designed to evaluate and implement management strategies aimed at maintaining designated use criteria and providing optimal quality for growing water supply demands on the Red River. At a minimum the permittee must coordinate their discharge activities with those of other dischargers in the area to minimize the cumulative impact on the Red River from all discharges in the Wahpeton area.

Contingency Plan
The permittee shall maintain a contingency plan outlining steps that will be taken in response to incidents or circumstances which may adversely impact the receiving stream and downstream uses. The goal of the plan

is to minimize any impacts to the receiving stream and keep downstream users informed of incidents which may potentially interfere with their intended use. At a minimum the plan shall contain the following items:

1. List of key personnel responsible for implementing and maintaining the plan.

2. List of downstream users to be notified in the event of an incident. At a minimum, the list must include the water treatment plants at Fargo, North Dakota; Moorhead, Minnesota; Grand Forks, North Dakota; and Cargill Wahpeton.

3. The standard operating procedures to be employed in response to upsets in the wastewater treatment process.

4. Brief description of spill prevention procedures, equipment or materials available for spill response, and backup or auxiliary systems.

The permittee shall amend the plan whenever there is a change at the facility which materially increases the potential for an incident adversely impacting the receiving stream or the plan proves ineffective in protecting downstream uses.

I. LIMITATIONS AND MONITORING REQUIREMENTS

A. Discharge Authorization

During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfalls as specified to the following: **Red River of the North.**

Approximately one week prior to discharge, the permittee shall notify Cargill Wahpeton, Minn Dak Farmers Cooperative, the department, the water treatment plants at Fargo, North Dakota and Moorhead, Minnesota of plans to discharge and the expected duration of the discharge. Predischarge samples shall be taken, and provided to the department at the time of notification, for: BOD_5, total suspended solids, pH, *E. coli*, ammonia, and total dissolved solids. The department is also requiring, at the time of discharge notification, the following upstream river values: pH, ammonia, temperature in C, and the river stream flow from the USGS gauging station 05051500.

Sampling of the Discharge

An effluent sample shall be collected during the first seven days of the discharge, and another effluent sample after the seventh day of the discharge and every seven days thereafter.

This permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the permit application process.

B. Effluent Limitations and Monitoring

The permittee must limit and monitor all discharges as specified below:

Table 1:Effluent Limitations and Monitoring Requirements **Outfalls 001 and 002**

	Effluent Limitations			Monitoring Requirements	
Parameter	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit	Sample Frequency	Sample Type
Biological Oxygen Demand (BOD5)	25.0 mg/l	45.0 mg/l	*	1/Week	Grab
Total Suspended Solids (TSS)	30.0 mg/l	45.0 mg/l	*	1/Week	Grab
pH a/	Shall be between 7.0 to 9.0 s.u.			1/Week	Grab
E. coli b/	126 /100 ml	*	409 /100 ml	1/Week	Grab
Ammonia c/	Refer to Ammonia Table			1/Week	Grab
Total Dissolved Solids (TDS) mg/l	*	*	*	1/Week	Grab
Total Phosphorus	*	*	*	1/Month	Grab
Nitrate-Nitrite	*	*	*	1/Month	Grab
Total Kjeldahl Nitrogen (TKN)	*	*	*	1/Month	Grab
Oil & Grease d/	*	*	10.0 mg/l	Conditional	Grab
Oil & Grease visual d/	*	*	Yes/No	Daily	Visual
Total Days Discharging	*	*	Report Monthly Total	1/Month	Calculated
Flow, Receiving Stream	Report Avg. Monthly Value	*	Report Max. Daily Value	1/Day	Instantaneous
Flow Effluent, mgd	Report Avg. Monthly Value	*	Report Max. Daily Value	Continuous	Recorder

Table 1:Effluent Limitations and Monitoring Requirements **Outfalls 001 and 002**					
	Effluent Limitations			Monitoring Requirements	
Parameter	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit	Sample Frequency	Sample Type
Total Drain, mgal	*	*	Report Monthly Total	1/Month	Calculated
Whole Effluent Toxicity (WET)	See "Whole Effluent Toxicity (WET) Requirements"			1/Quarter	Grab
Pretreatment Requirements					
Trace Elements	See "Industrial Waste Management-Sampling and Reporting Requirements"			1/Year	Grab
*. This item for the stated parameter is not limited. However, the department may impose limitations based on sample history and to protect the receiving waters.					
a/ The pH, an instantaneous limitation, shall be between 7.0 s.u. and 9.0 s.u. Up to 10% of representative samples collected during any three-year period may exceed this range, provided that lethal conditions are avoided.					
b/ E. coli limits shall be effective from April 1 through October 31.					
c/ See the table that follows for specific requirements for ammonia.					
d/ The permittee must not discharge any floating solids, visible foam in other than trace amounts, or oily wastes that produce a sheen or floating oil in the effluent or on the surface of the receiving water. The discharge shall be visibly inspected for sheen or floating oil. If present, grab samples shall be analyzed for oil and grease.					
Stipulations: Dates of discharge and number of excursions shall be included on the Discharge Monitoring Reports. Samples taken in compliance with the monitoring requirements specified in this permit shall be taken prior to leaving the facility property or entering the receiving stream.					

Table 2: Ammonia as N Effluent Limitations and Monitoring Requirements for **Outfalls 001** and **002**			
	Effluent Limitations		
Parameter	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit
Ammonia 1/	†	*	‡
Stream flow upstream, cfs 2/	*	*	*
Temperature upstream, ° C 2/, 3/	*	*	*
pH upstream, S.U. 2/, 3/	*	*	*

1/ Calculations must be performed for each discharge sample. If an exceedance is detected on any single sample, the exceedance must be reported on the DMR.

2/ Sample must be collected/ recorded the same day as the ammonia sample. The upstream flow, temperature, and pH may be obtained from the USGS gauging station at Wahpeton, North Dakota.

3/ If the upstream values are not collected then following minimum values base on the 90th percentile upstream STORET and USGS data are to be used: pH: 8.5 S.U., Temperature 23.5 ° C, and ammonia 0.25 mg/l. If the upstream flow is not available then, the 30B10 critical low flow of 131 cfs shall be used. The maximum mixing factor is 10.0%.

† Chronic Standard (Average Monthly Limit)
The 30-day average concentration of total ammonia (expressed as N in mg/L) does not exceed, more often than once every three years on the average, the numerical value given by the following formula; and the

Table 2: Ammonia as N Effluent Limitations and Monitoring Requirements for **Outfalls 001** and **002**			
	Effluent Limitations		
Parameter	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit

highest 4-day average concentration of total ammonia within the 30-day averaging period does not exceed 2.5 times the numerical value given by the following formula:

$$\left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) \bullet CV;$$

where CV = 2.85, when $T \leq 14°C$; or
$CV = 1.45 * 10^{0.028*(25-T)}$, when $T > 14°C$.
Receiving stream pH is used for the calculation

‡ Acute Standard (Daily Maximum Limit)
The one-hour average concentration of total ammonia (expressed as N in mg/l) does not exceed, more often than once every three years on the average, the numerical value given by the following formula:

$$\left(\frac{0.411}{1+10^{7.204-pH}} + \frac{58.4}{1+10^{pH-7.204}}\right)$$

where salmonids are absent; or

$$\left(\frac{0.275}{1+10^{7.204-pH}} + \frac{39.0}{1+10^{pH-7.204}}\right)$$

where salmonids are present.

Stipulations

The maximum mixing factor is 10.0%.

C. Whole Effluent Toxicity (WET) Requirements BP 2011.06.13

1. Acute Toxicity Testing

Acute toxicity tests shall be conducted in general accordance with the procedures set out in the latest revision of *"Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms,"* EPA-821-R-02-012 (Fifth Ed., October 2002). The permittee shall conduct an acute 48-hour static renewal toxicity test using freshwater fleas, *Ceriodaphnia dubia* and an acute 96-hour static renewal toxicity test using fathead minnows, *Pimephales promelas*.

Toxicity is defined as:

Acute test failure is defined as lethality to 50% or more of the test organisms exposed to 100% effluent or >1.0 TUa for *Ceriodaphnia dubia* 48 hour and fathead minnow 96 hour test. The 48 hour and 96 hour effluent value must be <**1.0 TUa** to indicate a passing test. Any 48 hour or 96 hour effluent value of >**1.0 TUa** will constitute a failure. Tests in which the control survival is less than 90% are invalid and must be repeated.

Table 3: Acute WET requirements for **Outfall 001** and **002**						
Implementation	Limitations Imposed					
Effluent Dilution	0%(Control)	12.5%	25%	50%	75%	100%
Dilution Water	**Red River of the North**					
Species and Test Type	*Ceriodaphnia dubia* - 48 Hour Acute - Static Renewal - 20°C					
	Fathead minnow - 96 Hour Acute - Static Renewal - 20°C					
Endpoint	Survival reported as TUa					
Compliance Point	**End-of-pipe**					
Sample Frequency	1/Quater					
Sample Type	Grab					

If toxicity occurs in a routine test, an additional test shall be initiated within 14 days from the date of the initial toxicity findings. Should there be no discharge during a specified sampling time frame; sampling shall be performed as soon as there is a discharge. Should toxicity occur in the second test, testing shall be conducted at a frequency of once a month and the implementation of a 5.Toxicity Reduction Evaluation (TRE) shall be determined by the department. If no toxicity is found in the second test, testing shall occur as outlined in the permit.

The permittee shall report the following results of each toxicity test on the DMR for that reporting period:

***Pimephales promelas* (Fathead Minnow)**

a. Report the highest TUa for Fathead minnow, Parameter No. TSN6C.

***Ceriodaphnia dubia* (Water Flea)**

a. Report the highest TUa for *Ceriodaphnia dubia*, Parameter No. TSM3B.

2. **Chronic Toxicity Testing**

No chronic toxicity limits are imposed on this permit. Therefore, the permittee is not required to monitor or test for chronic toxicity.

The chronic toxicity tests shall be conducted in general accordance with the procedures set out in the latest revision of "*Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms,*" EPA-821-R-02-013 (Fourth Ed., October 2002) . Test species shall consist of freshwater fleas, *Ceriodaphnia dubia* and fathead minnows, *Pimephales promelas*.

3. **Reduced Monitoring For Toxicity Testing**
   a. Alternating Species
      If the results of a minimum of four consecutive samples taken over at least a 12 month period indicate no toxicity, the permittee may request the Department for a test reduction. This reduction would only be testing one species per sampling frequency. If fathead minnows are used first then the next test would be *C. dubia* or vice versa and continue alternating. The Department may approve or deny the request, based on the biomonitoring results and other available information. If the request is approved, the test procedures are to be the same as outlined in 1. Acute Toxicity Testing and/or 2. Chronic Toxicity Testing.

      If toxicity occurs in any single species test the provision for alternating species shall be immediately revoked and 1. Acute Toxicity Testing and/or 2. Chronic Toxicity Testing shall be followed in whole.

   b. Monthly Testing
      If the results of 5. Toxicity Reduction Evaluation (TRE) have been accepted by the Department or a period of time has indicated no toxicity, the permittee may request the Department to allow a reduction from monthly to quarterly toxicity testing for both species. The Department may approve or deny the request, based on the bio-monitoring results and other available information. If the request is approved, the test procedures are to be the same as outlined in 1. Acute Toxicity Testing and/or 2. Chronic Toxicity Testing.

4. **Reporting Requirements**
   Test results shall be submitted with the Discharge Monitoring Report (DMR) form for each reporting period. The format for the report shall be consistent with the above reference manual(s) as outlined in the section "Report Preparation and Test Review." Each lab generated report shall document the findings for each species reference toxicity testing chart.

5. **Toxicity Reduction Evaluation (TRE)**
   If toxicity is detected, and it is determined by the Department that a TRE is necessary, the permittee shall be so notified and shall initiate a TRE immediately thereafter. A TRE shall reference the latest revision of "*Technical Support Document For Water Quality-based Toxics Control,*" EPA/505/2-90-001 – PB91-127415 (March 1991). The purpose of the TRE will be to establish the cause of the toxicity, locate the source(s) of the toxicity, and control or provide treatment for the toxicity.

   If the TRE establishes that the toxicity cannot be eliminated by the current treatment system, the permittee shall submit a proposed compliance plan to the Department. The plan shall include the proposed approach to control toxicity and a proposed compliance schedule for achieving control. If the approach and schedule are acceptable to the Department, this permit may be reopened and modified.

If the TRE shows that the toxicity is caused by a toxicant(s) that may be controlled with specific numerical limitations or proper discharge management as approved by the Department, the permittee may:

1. Submit an alternative control program for compliance with the numerical requirements; or

2. If necessary, provide a modified biomonitoring protocol which compensates for the pollutant(s) being controlled numerically.

   If acceptable to the department, this permit may be reopened and modified to incorporate any additional numerical limitations, a modified compliance schedule if judged necessary by the department, and/or a modified biomonitoring protocol.

   Failure to conduct an adequate TRE, or failure to submit a plan or program as described above, or the submittal of a plan or program judged inadequate by the department, shall in no way relieve the permittee from maintaining compliance with the whole effluent toxicity requirements of this permit.

II. MONITORING, RECORDING, AND REPORTING REQUIREMENTS BP 2015.12.30

A. Representative Sampling (Routine and Non-Routine Discharges)

All samples and measurements taken shall be representative of the monitored discharge.

In order to ensure that the effluent limits set forth in this permit are not violated at times other than when routine samples are taken, the permittee must collect additional samples at the appropriate outfall whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample. The permittee must analyze the additional samples for those parameters limited under **Part I Effluent Limitations and Monitoring** requirements of this permit that are likely to be affected by the discharge.

The permittee must collect such additional samples as soon as the spill, discharge, or bypassed effluent reaches the outfall. The samples must be analyzed in accordance with B. Test Procedures. The permittee must report all additional monitoring in accordance with D. Additional Monitoring.

B. Test Procedures

The collection and transportation of all samples shall conform with EPA preservation techniques and holding times found in 40 CFR 136. All laboratory tests shall be performed by a North Dakota certified laboratory in conformance with test procedures pursuant to 40 CFR 136, unless other test procedures have been specified in this permit or approved by EPA as an alternate test procedure under 40 CFR 136.5. The method of determining the total amount of water discharged shall provide results within 10 percent of the actual amount.

C. Recording of Results

Records of monitoring information shall include:

1. the date, exact place and time of sampling or measurements;

2. the name(s) of the individual(s) who performed the sampling or measurements;

3. the name of the laboratory;

4. the date(s) and time(s) analyses were performed;

5. the name(s) of the individual(s) who performed the analyses;

6. the analytical techniques or methods used; and

7. the results of such analyses.

D. Additional Monitoring

If the discharge is monitored more frequently than this permit requires, all additional results, if in compliance with B. Test Procedures, shall be included in the summary on the Discharge Monitoring Report.

E. Reporting of Monitoring Results

1. Monitoring results shall be summarized and reported to the department using Discharge Monitoring Reports (DMRs). If no discharge occurs during a reporting period, "No Discharge" shall be reported. Prior to December 21, 2016, the permittee may elect to submit DMRs, electronically, using the electronic reporting system. Beginning December 21, 2016, the permittee must submit DMRs using the electronic reporting system.

2. Beginning December 21, 2020, the permittee must report the following using the electronic reporting system:

   a. General permit reports [e.g., notices of intent (NOI); notices of termination (NOT); no exposure certifications (NOE)];

   b. Municipal separate storm sewer system program reports;

   c. Pretreatment program reports;

   d. Sewer overflow/bypass event reports; and

   e. Clean Water Act 316(b) annual reports

3. The permittee may seek a waiver from electronic reporting. To obtain a waiver, the permittee must complete and submit an Application for Temporary Electronic Reporting Waiver form (SFN 60992) to the department. The department will have 120 days to approve or deny the waiver request. Once the waiver is approved, the permittee may submit paper versions of monitoring data and reports to the department.

   All reports must be postmarked by the last day of the month following the end of each reporting period. All original documents and reports required herein shall be signed and submitted to the department at the following address:

   ND Department of Health
   Division of Water Quality
   918 East Divide Ave
   Bismarck ND 58501-1947

F. Records Retention

All records and information (including calibration and maintenance) required by this permit shall be kept for at least three years or longer if requested by the department or EPA.

III. COMPLIANCE RESPONSIBILITIES

A. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

B. Proper Operation and Maintenance

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. If necessary to achieve compliance with the conditions of this permit, this shall include the operation and maintenance of backup or auxiliary systems.

C. Planned Changes

The department shall be given advance notice of any planned changes at the permitted facility or of an activity which may result in permit noncompliance. Any anticipated facility expansions, production increase, or process modifications which might result in new, different, or increased discharges of pollutants shall be reported to the department as soon as possible. Changes which may result in a facility being designated a "new source" as determined in 40 CFR 122.29(b) shall also be reported.

D. Duty to Provide Information

The permittee shall furnish to the department, within a reasonable time, any information which the department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the department, upon request, copies of records required to be kept by this permit. When a permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in a permit application or any report, it shall promptly submit such facts or information.

E. Signatory Requirements

All applications, reports, or information submitted to the department shall be signed and certified.

All permit applications shall be signed by a responsible corporate officer, a general partner, or a principal executive officer or ranking elected official.

All reports required by the permit and other information requested by the department shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

The authorization is made in writing by a person described above and submitted to the department; and

The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

If an authorization under E. Signatory Requirements is no longer accurate for any reason, a new authorization satisfying the above requirements must be submitted to the department prior to or together with any reports, information, or applications to be signed by an authorized representative.

Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the

system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

F. Twenty-four Hour Notice of Noncompliance Reporting

1. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The following occurrences of noncompliance shall be included in the oral report to the department at 701.328.5210:

    a. Any lagoon cell overflow or any unanticipated bypass which exceeds any effluent limitation in the permit under G. Bypass of Treatment Facilities;

    b. Any upset which exceeds any effluent limitation in the permit under H. Upset Conditions; or

    c. Violation of any daily maximum effluent or instantaneous discharge limitation for any of the pollutants listed in the permit.

2. A written submission shall also be provided within five days of the time that the permittee became aware of the circumstances. The written submission shall contain:

    a. A description of the noncompliance and its cause;

    b. The period of noncompliance, including exact dates and times;

    c. The estimated time noncompliance is expected to continue if it has not been corrected; and

    d. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

Reports shall be submitted to the address in **Part II.E. Reporting of Monitoring Results**. The department may waive the written report on a case by case basis if the oral report has been received within 24 hours by the department at 701.328.5210 as identified above.

All other instances of noncompliance shall be reported no later than at the time of the next Discharge Monitoring Report submittal. The report shall include the four items listed in this subsection.

G. Bypass of Treatment Facilities

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to any of the following provisions in this section.

2. Bypass exceeding limitations-notification requirements.

    a. Anticipated Bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of bypass.

    b. Unanticipated Bypass. The permittee shall submit notice of an unanticipated bypass as required under F. Twenty-four Hour Notice of Noncompliance Reporting.

3. Prohibition of Bypass. Bypass is prohibited, and the department may take enforcement action against a permittee for bypass, unless:

    a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. The permittee submitted notices as required under the 1. Anticipated Bypass subsection of this section.

The department may approve an anticipated bypass, after considering its adverse effects, if the department determines that it will meet the three (3) conditions listed above.

H. Upset Conditions

An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of the following paragraph are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and the permittee can identify its cause(s);

2. The permitted facility was, at the time being, properly operated;

3. The permittee submitted notice of the upset as required under F. Twenty-four Hour Notice of Noncompliance Reporting and

4. The permittee complied with any remedial measures required under I. Duty to Mitigate.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

I. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. The permittee, at the department's request, shall provide accelerated or additional monitoring as necessary to determine the nature and impact of any discharge.

J. Removed Materials

Collected screenings, grit, solids, sludges, or other pollutants removed in the course of treatment shall be buried or disposed of in such a manner to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge/digester supernatant and filter backwash shall not be directly blended with or enter either the final plant discharge and/or waters of the state. The permit issuing authority shall be contacted prior to the disposal of any sewage sludges. At that time, concentration limitations and/or self-monitoring requirements may be established.

K. Duty to Reapply

Any request to have this permit renewed should be made six months prior to its expiration date.

IV. GENERAL PROVISIONS

A. Inspection and Entry

The permittee shall allow department and EPA representatives, at reasonable times and upon the presentation of credentials if requested, to enter the permittee's premises to inspect the wastewater treatment facilities and monitoring equipment, to sample any discharges, and to have access to and copy any records required to be kept by this permit.

B. Availability of Reports

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the department and EPA. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.

C. Transfers

This permit is not transferable except upon the filing of a Statement of Acceptance by the new party and subsequent department approval. The current permit holder should inform the new controller, operator, or owner of the existence of this permit and also notify the department of the possible change.

D. New Limitations or Prohibitions

The permittee shall comply with any effluent standards or prohibitions established under Section 306(a), Section 307(a), or Section 405 of the Act for any pollutant (toxic or conventional) present in the discharge or removed substances within the time identified in the regulations even if the permit has not yet been modified to incorporate the requirements.

E. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. This includes the establishment of limitations or prohibitions based on changes to Water Quality Standards, the development and approval of waste load allocation plans, the development or revision to water quality management plans, changes in sewage sludge practices, or the establishment of prohibitions or more stringent limitations for toxic or conventional pollutants and/or sewage sludges. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

F. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

G. State Laws

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation preserved under Section 510 of the Act.

H. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

J. Severability
The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

V. INDUSTRIAL WASTE MANAGEMENT BP 2013.01.10
Major POTWs-Non Approved Pretreatment Program Requirements

A. General Responsibilities
The permittee has the responsibility to protect the Publicly-Owned Treatment Works (POTW) from pollutants which would inhibit, interfere, or otherwise be incompatible with operation of the treatment works including interference with the use or disposal of municipal sludge.

B. Pollutant Restrictions
Pretreatment Standards (40 CFR Section 403.5) developed pursuant to Section 307 of the Federal Clean Water Act (the Act) require that the permittee shall not allow, under any circumstances, the introduction of the following pollutants to the POTW from any source of nondomestic discharge:

1. Any other pollutant which may cause Pass Through or Interference;

2. Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, waste streams with a closed cup flashpoint of less than sixty (60) degrees Centigrade (140 degrees Fahrenheit) using the test methods specified in 40 CFR Section 261.21;

3. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with a pH of lower than 5.0 s.u., unless the treatment facilities are specifically designed to accommodate such discharges;

4. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, or other interference with the operation of the POTW;

5. Any pollutant, including oxygen demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with any treatment process at the POTW;

6. Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds forty (40) degrees Centigrade (104 degrees Fahrenheit) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits;

7. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through at the POTW;

8. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;

9. Any trucked or hauled pollutants, except at discharge points designated by the POTW; and

10. Any specific pollutant which exceeds a local limitation established by the permittee in accordance with the requirements of 40 CFR Section 403.5 (c) and (d).

C. Approval Authority

North Dakota was delegated the Industrial Pretreatment Program in September of 2005. The North Dakota Department of Health, Division of Water Quality shall be the Approval Authority and the mailing address for all reporting and notifications to the Approval Authority shall be:

ND Department of Health
Division of Water Quality
918 East Divide Ave
Bismarck ND 58501-1947

D. Industrial Categories

In addition to the general limitations expressed above, more specific Pretreatment Standards have been and will be promulgated for specific industrial categories under Section 307 of the Act (40 CFR Part 405 et. Seq.).

E. Notification Requirements

The permittee must notify the Approval Authority, of any new introductions by new or existing industrial users or any substantial change in pollutants from any industrial user within sixty (60) days following the introduction or change. Such notice must identify:

1. Any new introduction of pollutants into the POTW from an industrial user which would be subject to Sections, 301, 306, and 307 of the Act if it were directly discharging those pollutants; or

2. Any substantial change in the volume or character of pollutants being introduced into the POTW by any industrial user;

3. For the purposes of this section, adequate notice shall include information on:

    a. The identity of the industrial user;

    b. The nature and concentration of pollutants in the discharge and the average and maximum flow of the discharge to be introduced into the POTW; and

    c. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from or biosolids produced at such POTW.

4. For the purposes of this section, a significant industrial user shall include:

    a. Any discharger subject to Categorical Pretreatment Standards under Section 307 of the Act and 40 CFR chapter I, subchapter N;

    b. Any discharger which has a process wastewater flow of 25,000 gallons or more per day;

    c. Any discharger contributing five percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant;

    d. Any discharger who is designated by the Approval Authority as having a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standards or requirements.

F. Sampling and Reporting Requirements

The permittee shall sample and analyze the effluent for the following pollutants:

40 CFR 122 Appendix D Table III				
Antimony, Total	Arsenic, Total	Beryllium, Total	Cadmium, Total	Chromium, Total
Copper, Total	Lead, Total	Mercury, Total	Nickel, Total	Selenium, Total
Silver, Total	Thallium, Total	Zinc, Total	Cyanide, Total	Phenols, Total
Hardness, Total a/				

Notes:

a. A total hardness of the receiving stream needs to be determined every time the above parameters are tested. The hardness is used to calculate parameter criterion(s) according to the North Dakota State Water Quality Standards.

The sampling shall commence within thirty (30) days of the effective date of this permit and continue at a frequency of once per year.

Sampling and analytical procedures shall be in accordance with guidelines established in 40 CFR Part 136. Where sampling methods are not specified the effluent samples collected shall be composite samples consisting of at least twelve (12) aliquots collected at approximately equal intervals over a representative 24 hour period and composited according to flow. Where a flow proportioned composite sample is not practical, the permittee shall collect at least three (3) grab samples, taken at equal intervals over a representative 24 hour period. Lagoon treatment systems may collect a single effluent grab sample.

The results of all analyses shall be attached to, and reported along with the Discharge Monitoring Report (DMR) submitted for the end of that reporting period.

G. Approval Authority Options

At such time as a specific pretreatment limitation becomes applicable to an industrial user of the permittee, the Approval Authority may, as appropriate:

1. Amend the permittee's North Dakota Pollutant Discharge Elimination System (NDPDES) discharge permit to specify the additional pollutant(s) and corresponding effluent limitation(s) consistent with the applicable Pretreatment Standards;

2. Require the permittee to specify, by ordinance, order, or other enforceable means, the type of pollutant(s) and the maximum amount which may be discharged to the permittee's POTW for treatment. Such requirement shall be imposed in a manner consistent with the POTW program development requirements of the General Pretreatment Regulations at 40 CFR Part 403; and/or,

3. Require the permittee to monitor its discharge for any pollutant which may likely be discharged from the permittee's POTW, should the industrial user fail to properly pre-treat its waste.

H. Enforcement Authority

The Approval Authority retains, at all times, the right to take legal action against any source of nondomestic discharge, whether directly or indirectly controlled by the permittee, for violations of a permit, order or similar enforceable mechanism issued by the permittee, violations of any Pretreatment Standard or requirement, or for failure to discharge at an acceptable level under national standards issued by EPA under 40 CFR, chapter I, subchapter N. In those cases where a North Dakota Pollutant Discharge Elimination System (NDPDES) permit violation has occurred because of requirements as necessary to protect the POTW, the North Dakota Department of Health and/or Approval Authority shall hold the permittee and/or industrial user responsible and may take legal action against the permittee as

well as the industrial user(s) contributing to the permit violation.