Please arrange to have the following public notice(s) printed in the legal column of the designated newspaper(s) as close to 8/5/2019 as possible:

The Affidavit of Publication and billing notice should be sent to: North Dakota Department of Environmental Quality, Judicial Wing, Division of Accounting, 600 East Boulevard Ave, Bismarck ND 58505.

## Name of the Newspaper: The Forum

#### North Dakota Department of Environmental Quality Public Notice Reissue of an NDPDES Permit

Public Notice Date: 8/5/2019

#### **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**

Public Notice Number: ND-2019-018

Application Date: 1/29/2019 Application Number: ND0022616

Applicant Name: West Fargo City Of

Mailing Address: 810 12th Ave NW, West Fargo, ND 58078

Telephone Number: 701.433.5402,701.433.5400 Proposed Permit Expiration Date: 9/30/2024

#### **Facility Description**

The reapplication is for ten (10) wastewater stabilization ponds servicing the City of West Fargo. The City of West Fargo has two permitted outfalls (001 and 002) and one (1) inactive outfall (003) that does not discharge. Discharges from the permitted outfalls will be to the Sheyenne River, a Class IA stream, via ditch #21 and the Sheyenne River Diversion.

#### **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 Env Quality, Div of Water Quality, 918 East Divide Ave, Bismarck ND 58501-1947 or by calling 701.328.5210.

All comments received by September 03, 2019 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.

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# FACT SHEET FOR NORTH DAKOTA POLLUTION DISCHARGE ELIMINATION SYSTEM (NDPDES) PERMIT ND0022616

#### CITY OF WEST FARGO, ND

#### **DATE OF THIS FACT SHEET - May 2019**

#### 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 Environmental Quality (NDDEQ) 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 33.1-16 (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 33.1-16-01),
- > Standards of Quality for Waters of the State (NDAC chapter 33.1-16-02.1).

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 NDAC, section 33.1-16-01-08, the NDPDES permit program, the department must prepare a draft permit and accompanying fact sheet and make it available for a thirty-day public review period (NDAC chapter 33.1-16-01-07). The department must also publish an announcement (public notice) informing people where they can obtain the draft permit and send their comments on the draft. For more details on preparing and filing comments about these documents, please see **Appendix A – Public Involvement Information**. After the Public Comment Period ends, the department may make changes to the draft NDPDES permit. The department will summarize the responses to comments and any changes to the permit in **Appendix D – Response to Comments**.

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#### **BACKGROUND INFORMATION**

**Table 1 – General Facility Information** 

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Applicant:	The City of West Fargo, North Dakota
Address:	810 12 <sup>th</sup> Ave. NW
Permit Number:	ND0022616
Permit Type:	Domestic- Major Municipal, Lagoon System
Type of Treatment:	Waste Stabilization Pond System - Secondary
	Treatment
Design Capacity	5.3 MGD
SIC Code:	4952
Discharge Location(s):	Outfall 001 - Cass County, ND; Latitude:
	46.902222; Longitude: -96.919444
	Outfall 002 - Cass County, ND; Latitude:
	46.908611; Longitude: -96917778
	Outfall 003 - Gate Valve on south end of Cell 8 -
	not currently used - Cass County, ND; Latitude:
	46.887333; Longitude -96.923217
Population Served:	37,000

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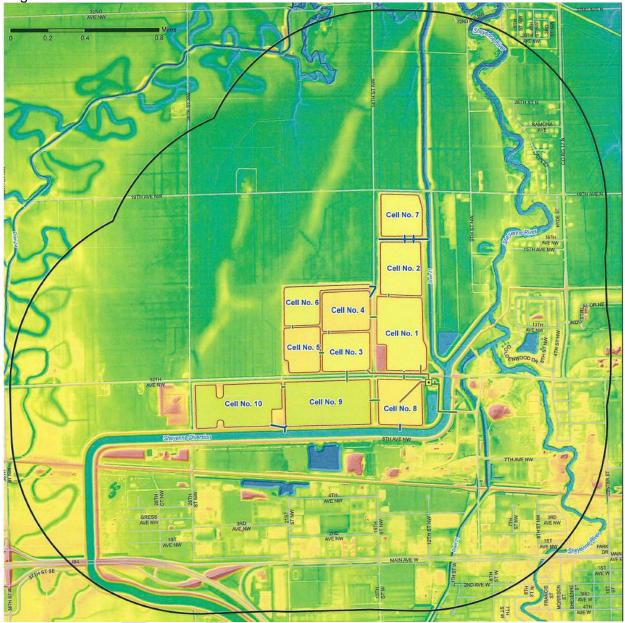


Figure 1: City of West Fargo Wastewater Treatment Overview.

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**Figure 2:** Location of West Fargo's Outfalls 001 and 002. Gate Valve on South End of Cell 8 is Outfall 003 – Inactive.

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#### **FACILITY DESCRIPTION**

#### <u>History</u>

The City of West Fargo owns and operates a major municipal wastewater treatment system that treats all wastewater generated from residential, commercial, and industrial entities in West Fargo. This wastewater treatment system consists of the collection system, ten (10) facultative waste stabilization ponds, and two active outfalls discharging to the Sheyenne River (a Class IA stream) via Drainage Ditch #21 – a Class III Stream and/or the Sheyenne River Diversion – a Class III stream (see Appendix B - Definitions). The 10-cell lagoon system covers 600 acres of land with 460 acres of actual treatment area (440 million gallons allowable storage volume).

The sizes of the waste stabilization ponds are as follows:

- Cell 1 70 acres,
- Cell 2 40 acres,
- Cell 3 34.4 acres,
- Cell 4 41.6 acres,
- Cell 5 31 acres,
- Cell 6 31 acres,
- Cell 7 37 acres,
- Cell 8 37 acres,
- Cell 9 65 acres,
- Cell 10 66 acres.

Cells 1, 2, and 7 are located in the W 1/2 Section 31, Township 140 N, Range 49W. Cell 3, 4, 5, and 6 are located in the SE 1/4 Section 36, Township 140N, Range 50W. Cell 8 is located in the NW 1/4 Section 6, Township 139N, Range 49W. Cell 9 is located in the NE 1/4 Section 1, Township 139N, Range 50W. Cell 10 is located in NW 1/4 Section 1 Township 139N, Range 50W

The department was delegated primacy for the Industrial Pretreatment Program on September 9, 2005. EPA approved West Fargo's Industrial Pretreatment Program in June 1999 in accordance with the procedures in 40 CFR 403.11. The city currently has six (6) categorical industrial users and one (1) significant industrial user. All information for these industrial users is located in the city's 2019 North Dakota Industrial Pretreatment Program Annual Report on POTW Implementation and Enforcement.

#### **Historical Permit Update**

According to the permit application received by the department from West Fargo, the south side of Cell #8 has a gate valve that does not ever get used. This gate valve can be opened to the Sheyenne Diversion and will be identified as an inactive outfall in this permit reissuance and labelled as Outfall 003. Any discharge from Outfall 003 will be considered an unauthorized discharge from the treatment system and subject to provisions outlined in Part III(G) of the issued NDPDES permit.

#### **Treatment System**

The city of West Fargo constructed Cell 10 in 2014 and currently uses eight (8) Lake Aid<sup>®</sup> wind mixers in Primary Cell 3 that were installed in 1994 and 1995. These mixers replaced the three (3) pre-aeration basins. After primary treatment, wastewater is transferred to the facultative

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cells where detention time is used to continue the wastewater treatment processes to meet secondary treatment standards.

#### West Fargo to City of Fargo Wastewater Connection Project

The West Fargo lagoon system is near hydraulic capacity and current organic loading exceeds the capacity of the primary cells (ponds #1 and #3). The deficiency in treating organic material magnifies operational issues such as odor, in which the city has had an increase in complaints in recent years as the community has grown. To address the current and future capacity demands, the City of West Fargo coordinated an agreement with the City of Fargo to convey 100% of the West Fargo wastewater flow to Fargo. This connection will provide the ability for West Fargo to decommission the wastewater lagoon system. Fargo is currently upgrading several components of its wastewater system to accommodate West Fargo's wastewater contribution. Below is the proposed schedule (subject to change) for this connection project:

- Active pumping start date: Fall 2019 provided receipt of United States Army Corps of Engineers' 408 permit approval (submitted 2017). Original completion date was fall 2017.
- Milestones i.e. starting quantity pump approximately 1.0 Million Gallons per Day (MGD) starting 2019, to 100% estimated by 2025.
- One hundred percent (100%) of West Fargo's effluent going to Fargo by 2025 with high flow Inflow & Infiltration (I&I) being diverted to lagoons until last cell is decommissioned.
- Plan to start decommissioning lagoons in 2020 with last lagoon to be decommissioned by 2030 or with completion of Fargo Diversion. West Fargo is working on engineering the best method of the lagoon-system closure to benefit future use of the area.
- The City of West Fargo will contract with the City of Mapleton for wastewater conveyance to the City of Fargo.

#### **Outfall Description**

Discharges at any location not authorized under a NDPDES permit is a violation of the Clean Water Act (CWA) and could subject the person(s) responsible for such discharge to penalties under section 309 of the CWA. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge within the specified timeframe outlined in this permit could subject such person(s) to criminal penalties as provided under the CWA.

Outfall 001. Active. Final.							
Latitude: 46.902222	Longitude: -96.919444	County: Cass					
Township: 140N	Range: 49W	Section: 31	SENW				
Receiving Stream: Sheyenn	e River via Drain #21	Classification: C	lass III				
Outfall Description: Any discharge from this point is from any Cell in the system via Cell 2 or 7							
to the Sheyenne River – a C	Class IA stream - via Drain #21,	to the Sheyenne River – a Class IA stream - via Drain #21, a Class III stream.					

Outfall 002. Active. Fina	al.						
Latitude: 46.887506	Longitude: -96.936631	County: Cass	3				
Township: 139N	Range: 50W	Section: 1	SENW				
Receiving Stream: Sheye	enne River via Sheyenne River	Classification: Class III					
Diversion.							
Outfall Description: Any discharge from this point is from Cell 9 or 10 to the Sheyenne River -							
a Class IA Stream - via t	a Class IA Stream – via the Sheyenne Diversion, a Class III stream.						

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Outfall 003. Non Active	).					
Latitude: 46.925287	Longitude: -96.78585	County: Cass				
Township: 139N	Range: 49W	Section: 6	SWNW			
Receiving Stream: Shey	enne Diversion	Classification:	Class III			
Outfall Description: Inact	tive gate valve that can be open	ed to the Sheyenr	ne Diversion.			
Permittee states that the valve is never used. Any discharge from this outfall would be						
unauthorized and subject	t to the bypass provisions set fo	rth in Part III(G) o	f the permit.			

#### **PERMIT STATUS**

The department issued the previous permit for this facility on October 1, 2014. The previous permit placed limits on Biochemical Oxygen Demand (BOD<sub>5</sub>), pH, Total Suspended Solids (TSS), *Eschericha coli* (*E. coli*), Oil and Grease, Ammonia as N, and Whole Effluent Toxicity (WET).

The department has been in contact with the City of West Fargo to obtain information to reissue the permit. The department received EPA applications Form 1 and 2A on January 29, 2019. The application was accepted by the department on January 29, 2019. Effluent sample data has been provided to the department through official laboratory reports, discharge monitoring reports, and the permit application Form 2A. All calculations for this permit reissuance were conducted utilizing the department's database.

No discharges occurred from Outfall 003 (Cell 8 gate valve) during the previous permit cycle.

#### SUMMARY OF COMPLIANCE WITH PREVIOUS PERMIT ISSUED

The department's assessment of compliance is based on review of the facility's Discharge Monitoring Report (DMR) forms and inspections conducted by the department. Nine (9) inspections of the facility were conducted from October 1, 2014 to July 11, 2019. The facility had effluent exceedances in August and September 2014, August 2015, August and September 2016, and June and July 2017 (**Table 3**). The facility did not have effluent exceedances in August 2017 and was back in compliance.

The City of West Fargo is a controlled discharger. A summary of the data follows:

Table	Table 2: City of West Fargo DMR Data Summary from January 01, 2014 – July 31, 2019										
Disch Pt	Location	Parameter	Ave Conc	Range	Units	Ave Load	Max Load	Max Load Units			
001A	Effluent	Ammonia as Nitrogen	7.97	0.30 – 12.9	mg/L	N/A	N/A	N/A			
	Up Stream	Ammonia as Nitrogen	0.225	0.12 – 1.4	mg/L	N/A	N/A	N/A			
001A		Biochemical Oxygen Demand (30-day Avg)	8.2	4.3 – 15.3	mg/L	N/A	N/A	N/A			
001A		Biochemical Oxygen Demand (7-day Avg)	11.1	4.3 – 20.6	mg/L	N/A	N/A	N/A			

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Table 2: City of West Fargo DMR Data Summary from January 01, 2014 – July 31, 2019										
Disch Pt	Location	Parameter	Ave Conc	Range	Units	Ave Load	Max Load	Max Load Units		
001A	Effluent	Discharge Flow in Million Gals	N/A	N/A	N/A	8.59	13.5	MGD		
001A	Effluent	Drain in Million Gallons	N/A	N/A	N/A	87.5	173.4	Mgal		
001A	Effluent	E Coli Geometric Mean (30-Day Avg)	15.7	2.0 – 79.8	Num/100 mL	N/A	N/A	N/A		
001A	Effluent	E Coli Geometric Mean Daily Max)	24.8	2.0 – 128.1	Num/100 mL	N/A	N/A	N/A		
001A	Up Stream	Flow in the Receiving Stream	N/A	N/A	N/A	678.1	1530	CFS		
001A	Effluent	Nitrate Nitrite Total	0.62	0.1 – 1.39	mg/l	N/A	N/A	N/A		
001A	Effluent	Oil & Grease	N/A	N/A	N/A	N/A	N/A	N/A		
001A	Effluent	Oil and Grease Visual	N/A	N/A	N/A	N/A	0	Y=1;N=0		
001A	Down Stream	рН	N/A	7.78 – 8.78	S.U.	N/A	N/A	N/A		
001A	Effluent	рН	N/A	7.95 – 9.0	S.U.	N/A	N/A	N/A		
001A	Effluent	Phosphorus Total	2.59	0.56 – 4.62	mg/L	338.3	1659	lbs/d		
001A	Down Stream	Temperature in Celsius	14.8	1.1 – 26.6	deg C	N/A	N/A	N/A		
001A	Effluent	Temperature in Celsius	14.0	0.20 – 26.9	deg C	N/A	N/A	N/A		
001A	Effluent	Total Kjeldahl as Nitrogen	16.1	5.0 – 28.7	mg/l	N/A	N/A	N/A		
001A	Effluent	Total Suspended Solids (30-Day Avg)	17.7	6.4 – 25.15	mg/l	N/A	N/A	N/A		
001A	Effluent	Total Suspended Solids (7-Day Avg)	22.7	8.6 – 28.7	mg/l	N/A	N/A	N/A		
001M	Effluent	Antimony Total	0.00125		mg/l	N/A	N/A	N/A		
001M	Influent	Antimony Total	0.00138		mg/l	N/A	N/A	N/A		
001M	Effluent	Arsenic Total	0.002	0.002 - 0.003	mg/l	N/A	N/A	N/A		
001M	Influent	Arsenic Total	0.002	0.002 - 0.002	mg/l	N/A	N/A	N/A		
001M	Effluent	Beryllium Total	0.00	0.0- 0.0005	mg/l	N/A	N/A	N/A		

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Table 2: City of West Fargo DMR Data Summary from January 01, 2014 – July 31, 2019									
Disch Pt	Location	Parameter	Ave Conc	Range	Units	Ave Load	Max Load	Max Load Units	
001M	Influent	Beryllium Total	0.00	0.0 - 0.0	mg/l	N/A	N/A	N/A	
001M	Effluent	Cadmium Total	Non detect	N/A	mg/l	N/A	N/A	N/A	
001M	Influent	Cadmium Total	Non detect	N/A	mg/l	N/A	N/A	N/A	
001M	Effluent	Chromium Total	0.002	0.0 - 0.006	mg/l	N/A	N/A	N/A	
001M	Influent	Chromium Total	0.004	0.002 - 0.009	mg/l	N/A	N/A	N/A	
001M	Effluent	Copper Total	0.01	0.0 - 0.024	mg/l	N/A	N/A	N/A	
001M	Influent	Copper Total	0.04	0.022 - 0.068	mg/l	N/A	N/A	N/A	
001M	Effluent	Cyanide	0.0055	0.005 – 0.007	mg/l	N/A	N/A	N/A	
001M	Influent	Cyanide	0.005	0.003 - 0.007	mg/l	N/A	N/A	N/A	
001M	Effluent	General Chemical Analyses	N/A	N/A	N/A	N/A	1	Y=1;N=0	
001M	Up Stream	Hardness as CaCO3	479.3	323 - 580	mg/l	N/A	N/A	N/A	
001M	Effluent	Lead Total	0.0001	0.0 – 0.001	mg/l	N/A	N/A	N/A	
001M	Influent	Lead Total	0.0004	0.0 0.001	mg/l	N/A	N/A	N/A	
001M	Effluent	Mercury Total	0.00005	0.0 – 0.0002	mg/l	N/A	N/A	N/A	
001M	Influent	Mercury Total	0.00005	0.0 – 0.0002	mg/l	N/A	N/A	N/A	
001M	Effluent	Nickel Total	0.007	0.003 - 0.015	mg/l	N/A	N/A	N/A	
001M	Influent	Nickel Total	0.008	0.003 - 0.017	mg/l	N/A	N/A	N/A	
001M		Phenolics Total Recoverable	1.28	0.011 – 10.0	mg/l	N/A	N/A	N/A	
001M		Phenolics Total Recoverable	9.35	0.061 – 73.4	mg/l	N/A	N/A	N/A	
001M	Effluent	Selenium Total	0.004	0.002 - 0.01	mg/l	N/A	N/A	N/A	

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Disch   Ave   Ave   Max   N									
Pt	Location	Parameter	Conc	Range	Units	Load	Load	Load Units	
001M	Influent	Selenium Total	0.005	0.002 - 0.01	mg/l	N/A	N/A	N/A	
001M	Effluent	Silver	0.0001	0.0 - 0.0005	mg/l	N/A	N/A	N/A	
001M	Influent	Silver	0.0004	0.0 - 0.002	mg/l	N/A	N/A	N/A	
001M	Effluent	Thallium Total	0.00004	0.0 - 0.0002	mg/l	N/A	N/A	N/A	
001M	Influent	Thallium Total	0.00004	0.0 - 0.0002	mg/l	N/A	N/A	N/A	
001M	Effluent	Zinc Total	0.05	0.025 - 0.05	mg/l	N/A	N/A	N/A	
001M	Influent	Zinc Total	0.14	0.06 - 0.21	mg/l	N/A	N/A	N/A	
001W	Effluent	Acute Toxic Unit Ceriodaphnia TSA3B	N/A	<1	TUa	N/A	N/A	N/A	
001W	Effluent	Acute Toxic Unit Fat Hd Minnows TSB6C – the subsequent WET test taken for the failure passed.	N/A	<1 – 1.14	TUa	N/A	N/A	N/A	
001W	Effluent	Ceriodaphnia	N/A	0	Pass=0 Fail=1	N/A	N/A	N/A	
001W	Effluent	Fat Head Minnows – the subsequent WET test taken for the failure passed.	N/A	0 - 1	Pass=0 Fail=1	N/A	N/A	N/A	
002A	Effluent	Ammonia as Nitrogen	8.12	0.13 – 45.6	mg/L	N/A	N/A	N/A	
	Up Stream	Ammonia Total	1.15	0.07 – 25.0	mg/L	N/A	N/A	N/A	
002A	Effluent	Biochemical Oxygen Demand (30-Day Avg)	13.4	5.0 – 42.1	mg/L	N/A	N/A	N/A	
002A	Effluent	Biochemical Oxygen Demand (7-day Avg)	14.8	5.0 – 42.1	mg/L	N/A	N/A	N/A	
002A	Effluent	Discharge Flow in Million Gals	N/A	N/A	N/A	13.4	20.0	MGD	
002A	Effluent	E Coli Geometric Mean (30-Day)	234.7	2.8 - 2420	Num/100 mL	N/A	N/A	N/A	
002A	Effluent	E Coli Geometric Mean (Daily Max)	247.1	2.9 - 2420	Num/100 mL	N/A	N/A	N/A	

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Table 2: City of West Fargo DMR Data Summary from January 01, 2014 – July 31, 2019									
Disch Pt	Location	Parameter	Ave Conc	Range	Units	Ave Load	Max Load	Max Load Units	
002A	Up Stream	Flow in the Receiving Stream	N/A	N/A	N/A	1047.8	4170	ft3/sec	
002A	Effluent	Flow Total Month	N/A	N/A	N/A	122.7	228.6	MGAL	
002A	Effluent	Nitrate Nitrite Total	0.28	0.1 – 1.0	mg/l	N/A	N/A	N/A	
002A	Effluent	Oil & Grease	N/A	N/A	mg/l	N/A	N/A	N/A	
002A	Effluent	Oil and Grease Visual	N/A	N/A	N/A	N/A	0	Y=1;N=0	
	Down Stream	рН	N/A	7.51 – 8.66	S.U.	N/A	N/A	N/A	
002A	Effluent	pΗ	N/A	7.35 – 9.41	S.U.	N/A	N/A	N/A	
002A	Effluent	Phosphorus Total	3.26	0.87 – 8.66	mg/L	361.38	637	lb/d	
	Down Stream	Temperature in Celsius	13.7	0.9 – 25.3	deg C	N/A	N/A	N/A	
002A	Effluent	Temperature in Celsius	15.2	3.6 – 25.4	deg C	N/A	N/A	N/A	
002A	Effluent	Total Kjeldahl as Nitrogen	13.4	0.32 – 50.2	mg/l	N/A	N/A	N/A	
002A	Effluent	Total Suspended Solids (30-day Avg)	17.7	6.3 – 32.0	mg/l	N/A	N/A	N/A	
002A	Influent	Total Suspended Solids (7-Day Avg)	21.8	6.3 – 32.0	mg/l	N/A	N/A	N/A	
002M	Effluent	Antimony Total	0.001	0.001- 002	mg/l	N/A	N/A	N/A	
002M	Influent	Antimony Total	0.001	0.001 - 0.002	mg/l	N/A	N/A	N/A	
002M	Effluent	Arsenic Total	0.007	0.002 – 0.018	mg/l	N/A	N/A	N/A	
002M	Influent	Arsenic Total	0.004	0.002 - 0.013	mg/l	N/A	N/A	N/A	
002M	Effluent	Beryllium Total	0.00008	0.0 – 0.0005	mg/l	N/A	N/A	N/A	
002M	Influent	Beryllium Total	0.0009	0.002 - 0.005	mg/l	N/A	N/A	N/A	
002M	Effluent	Cadmium Total	0.00002		mg/l	N/A	N/A	N/A	
002M	Influent	Cadmium Total	0.00002		mg/l	N/A	N/A	N/A	
002M	Effluent	Chromium Total	0.0021	0.002 – 0.0027	mg/l	N/A	N/A	N/A	

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Table 2: City of West Fargo DMR Data Summary from January 01, 2014 – July 31, 2019									
Disch Pt	Location	Parameter	Ave Conc	Range	Units	Ave Load	Max Load	Max Load Units	
002M	Influent	Chromium Total	0.0030	0.002 - 0.007	mg/l	N/A	N/A	N/A	
002M	Effluent	Copper Total	0.009	0.003 – 0.024	mg/l	N/A	N/A	N/A	
002M	Influent	Copper Total	0.034	0.021 – 0.072	mg/l	N/A	N/A	N/A	
002M	Effluent	Cyanide	0.006	0.005 – 0.012	mg/l	N/A	N/A	N/A	
002M	Influent	Cyanide	0.0053	0.005 – 0.007	mg/l	N/A	N/A	N/A	
002M	Effluent	General Chemical Analyses	N/A	N/A	N/A	N/A	1	Y=1;N=0	
002M	Up Stream	Hardness as CaCO3	459.3	323 - 620	mg/l	N/A	N/A	N/A	
002M	Effluent	Lead Total	0.0003	0.0 – 0.001	mg/l	N/A	N/A	N/A	
002M	Influent	Lead Total	0.001	0.0 - 0.002	mg/l	N/A	N/A	N/A	
002M	Effluent	Mercury Total	0.00003	0 - 0.0002	mg/l	N/A	N/A	N/A	
002M	Influent	Mercury Total	0.00003	0 - 0.0002	mg/l	N/A	N/A	N/A	
002M	Effluent	Nickel Total	0.006	0.002 – 0.012	mg/l	N/A	N/A	N/A	
002M	Influent	Nickel Total	0.006	0.004 - 0.009	mg/l	N/A	N/A	N/A	
002M	Effluent	Phenolics Total Recoverable	1.68	0.01 – 10.0	mg/l	N/A	N/A	N/A	
002M	Influent	Phenolics Total Recoverable	22.1	0.056 – 132.0	mg/l	N/A	N/A	N/A	
002M	Effluent	Selenium Total	0.003	0.002 - 0.005	mg/l	N/A	N/A	N/A	
002M	Influent	Selenium Total	0.004	0.002 - 0.0054	mg/l	N/A	N/A	N/A	
002M	Effluent	Silver	0.0004	0.0 - 0.002	mg/l	N/A	N/A	N/A	
002M	Influent	Silver	0.0002	0.0- 0.001	mg/l	N/A	N/A	N/A	
002M	Effluent	Thallium Total	0.00002		mg/l	N/A	N/A	N/A	

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Table:	Table 2: City of West Fargo DMR Data Summary from January 01, 2014 – July 31, 2019							
Disch Pt	Location	Parameter	Ave Conc	Range	Units	Ave Load	Max Load	Max Load Units
002M	Influent	Thallium Total	0.00002	0.0 - 00001	mg/l	N/A	N/A	N/A
002M	Effluent	Zinc Total	0.046	0.025 – 0.05	mg/l	N/A	N/A	N/A
002M	Influent	Zinc Total	0.12	0.05 – 0.24	mg/l	N/A	N/A	N/A
002W		Acute Toxic Unit Ceriodaphnia TSA3B	N/A	<1	TUa	N/A	N/A	N/A
002W		Acute Toxic Unit Fat Hd Minnows TSB6C	N/A	<1 – 1.27	TUa	N/A	N/A	N/A
002W	Effluent	Ceriodaphnia	N/A	0	Pass=0 Fail=1	N/A	N/A	N/A
002W	Effluent	Fat Head Minnows	N/A	0 - 1	Pass=0 Fail=1	N/A	N/A	N/A

#### **Summary of DMR Data Excursions**

Five (5) excursions occurred from October 1, 2014 through July 31, 2019 (**Table 3**). Effluent from Outfall 001 failed one (1) WET test, and effluent from Outfall 002 effluent failed one (1) WET test during the previous permit cycle. The city retested the subsequent discharges for each failed WET test and passed on all occurrences. Therefore, the Toxic Identification Evaluation and Toxicity Reduction Evaluation (TIE/TRE) were not initiated.

The three (3) other excursions were from Outfall 002 for *E. coli* (daily max and monthly average) and one upper pH limit exceedance.

Table	Table 3: Summary of DMR data excursions from 10/01/2014 – 07/31/2019.								
Disch Pt	Location	Month	Parameter	Min Conc	Avg Conc	Max Conc	Units Conc	Excursions	TRC Exceedance
	Effluent – Cell #2	8/1/2016	WET – Fat Head	N/A	N/A	1.14	TUa	1	0 – retest passed
	Effluent – Cell #9	5/1/2017	WET – Fat Head	N/A	N/A	1.27	TUa	1	0 – retest passed
002A	Effluent	11/1/2018	рН	8.61	N/A	9.41	S.U.	1	0
002A	Effluent	4/1/2019	<i>E Coli -</i> Geo Mean	2420	2420	2420	Num/100 mL	2	0

## Sanitary Sewer Overflows (SSOs)

One SSO was identified during the previous permit cycle. Any bypasses/SSOs for the City of West Fargo from October 2014 – July 2019 were due to excessive precipitation events that overloaded the system.

PROPOSED PERMIT LIMITS AND SELF MONITORING REQUIREMENTS

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The City of West Fargo 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 NDAC Chapter 33.1-16-01-30. These regulations are performance standards that constitute all known, available, and reasonable methods of prevention, control, and treatment for municipal wastewater.

Table 4: 40 CFR 133 Technology-Based Effluent Limitations				
Parameter	30-Day Average	7-Day Average		
BOD <sub>5</sub>	30 mg/l	45 mg/l		
CBOD <sub>5</sub>	25 mg/l	40 mg/l		
TSS	30 mg/l	45 mg/l		
рН	Remain between 6.0 to 9.0			
Percent Removal	85% BOD5 and TSS			

NDAC Chapter 33.1-16-01-14(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 (25) 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**

Based on the West Fargo to Fargo wastewater connection proposed to be complete by 2025, the department considered the existing receiving stream as the West Fargo diversion. However, considering the end point for the effluent is the Sheyenne River, a Class IA stream, the department proposes the following effluent limitations for Outfalls 001 and 002:

Table 5: Effluent L	Table 5: Effluent Limitations and Monitoring Requirements for Outfalls 001 and 002					
	Ш	Effluent Limitation	ons			
Parameter	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit	Basis <sup>a/</sup>		
BOD <sub>5</sub> , mg/l	25 mg/l	45 mg/l	*	40 CFR 133.102(a)(4) NDAC 33.1-16-01-14(3) Previous Permit		
TSS, mg/l	30 mg/l	45 mg/l	*	40 CFR 133.102(a)(4) NDAC 33.1-16-01-14(3) Previous Permit		
pH, S.U. b/	Shall remain between 7.0 and 9.0 S.U.			NDAC 33.1-16-02.1 Previous Permit		
Oil and Grease Visual, c/	*	*	*	NDAC 33.1-16-02.1 Previous Permit		
Oil & Grease, mg/l, c/	*	* 10 mg/l		Previous Permit BPJ		
Ammonia as N, mg/l	Refer to	Ammonia Table	NDAC 33.1-16-02.1 Previous Permit			
Escherichia coli (E.coli) geo	126	*	409	NDAC 33.1-16-02.1 Previous Permit		

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mean, #/100ml, d/				
Whole Effluent Toxicity (WET),	Refer to the \	NET Requireme	ints (Tahla 9)	40 CFR 122.44(d)(1)(iv-v) NDAC 33.1-16-02.1
TU <sub>a</sub>	Neier to the	WET Requireme	into (Table 3)	Previous Permit
Notes:				

<sup>\*</sup> This parameter is not limited. However, the department may impose limitations based on sample history and to protect the receiving waters.

"Previous Permit" refers to limitations in the previous permit. The NDPDES regulations 40 CFR Part 122.44(I)(1) Reissued Permits require that when a permit is renewed or reissued, interim limitations, standards, or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit unless the circumstances on which the previous permit was issued have materially and substantially changed since the previous permit was issued and would constitute cause for permit modification or revocation and reissuance under 40 CFR Part 122.62.

"WQS" refers to effluent limitations based on the State of North Dakota's "Standards of Quality for Waters of the State", NDAC Chapter 33.1-16-02.1.

"BPJ" refers to best professional judgment.

b/ The pH, an instantaneous limitation, shall be between 7.0 S.U. and 9.0 S.U. Any single analysis and/or measurement outside this limitation shall be considered a violation of the conditions of this permit.

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.

d/ E. coli limits shall be effective from April 1 through October 31.

Table 6: Ammonia Effluent Limitations and Monitoring Requirements Outfall 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/	*	*	*		
pH upstream, S.U. 2/	*	*	*		

<sup>\*</sup> This parameter is not limited. However, the department may impose limitations based on sample history and to protect the receiving waters.

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

a/ The basis for the effluent limitations is given below:

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Table 6: Ammonia Effluent Limitations and Monitoring Requirements Outfall 001 and 002.				
Effluent Limitations				
Parameter	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit	

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 05059500 at West Fargo, North Dakota.

### † Chronic Standard (Average Monthly Limit):

The 30-day average concentration of total ammonia (expressed as N in mg/L) does not exceed the numerical value given by the following formula:

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

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

### **‡ Acute Standard (Daily Maximum Limit)**

The total ammonia (expressed as N in mg/l) does not exceed the numerical value given by the following formula:

$$\frac{(0.411)}{(1+10^{7.204-pH})}$$
 + 58.4)  
where salmonids are absent; or

#### **Stipulations**

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

If the upstream values are not collected, then the following values are to be used:

- pH: 8.7 S.U., based on the 90<sup>th</sup> percentile of collected instream data.
- Temperature values used during the winter months can be extrapolated from available USGS data using best professional judgement,
- Permittee shall use the 90<sup>th</sup> percentile instream ammonia value of 0.23 mg/l,
- If the upstream flow is not available, the 1B3 critical low flow value of 61.9 cfs must be used.

The maximum mixing factor with the receiving stream is 10.0%.

#### **SELF-MONITORING REQUIREMENTS**

All effluent samples shall be collected at a point following the treatment system and prior to entering Drain #21/Sheyenne River Diversion/Sheyenne River.

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A pre-discharge sample shall be taken prior to the start of any discharge from outfalls 001 and 002. This analysis shall be reported to the department. A pre-discharge sample shall be tested for BOD<sub>5</sub>, TSS, pH, Temperature, *E. coli.*, and Ammonia as N. This pre-discharge sample shall represent the first week discharge sample. Additional sample of the actual discharge shall be collected and analyzed on a weekly basis for the duration of the discharge.

Table 7: Self-Monitoring Requirements for Outfalls 001 and 002				
Effluent Parameter	Frequency	Sample Type		
BOD <sub>5</sub> , mg/l	1/Week	Composite		
TSS, mg/l	1/Week	Composite		
pH, S.U.	1/Week	Grab		
Oil and Grease Visual, a/	Daily	Visual		
Oil & Grease, mg/l, a/	Conditional/Daily	Grab		
Ammonia as N, mg/l	3/Week	Composite		
Escherichia coli (E.coli) geo mean, #/100ml	1/Week	Grab		
Temperature, °C	1/Week	Grab		
Total Nitrogen, mg/l	1/Month	Composite		
Total Phosphorus, mg/l	1/Month	Composite		
Ammonia as N, mg/l, upstream, b/	3/Week	Grab		
Receiving Stream Flow, cfs, b/	3/Week	Instantaneous		
Temperature, °C, upstream, b/	3/Week	Instantaneous		
pH, S.U., upstream	3/Week	Grab		
Whole Effluent Toxicity (WET), TU <sub>a</sub>	1/Quarter	Grab		
Metals, μg/L, c/	1/Year	Composite		
Total Flow, MGD	Daily	Instantaneous		
Total Drain, MG	1/Month	Calculated		

a/ 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.

b/ If the upstream values are not collected then following minimum values base on the 90<sup>th</sup> percentile upstream USGS data are to be used: pH: 8.7 S.U., Temperature 25.3°C, and ammonia 0.23 mg/l. If the upstream flow is not available then, the 1B3 critical low flow of 61.9 cfs shall be used. The maximum mixing factor is 10.0%.

c/ Refer to Part V(C), Industrial Pretreatment Program, Sampling and Reporting Requirements of the permit.

#### SURFACE WATER QUALITY-BASED EFFLUENT LIMITS

The North Dakota State Water Quality Standards (NDAC Chapter 33.1-16-02.1) 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

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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.

The stream reach of the receiving water body (Sheyenne River) that the facility discharges to (ND-09020204-003-L\_00) is listed as impaired under the 2016 Integrated Report. This reach is listed as not supporting recreation due to impairment by fecal coliform. The TMDL priority is low for this stream reach.

West Fargo monitors its effluent for E. coli instead of fecal coliform. The State Water Quality Standards NDAC 33.1-16 removed the fecal coliform standard and replaced it with an E. coli standard.

#### 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 33.1-16-02.1). 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 33.1-16-02.1-08) 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 33.1-16-02(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

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The department's WQS contain a Mixing Zone and Dilution Policy and Implementation Procedure, NDAC Chapter 33.1-16-02.1 (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

#### BOD<sub>5</sub>

The department reviewed the  $BOD_5$  data and sampling frequency. No excursions occurred for this parameter from either permitted outfall. The department proposes to continue with the 25 mg/l (30-day arithmetic average) and 45 mg/l (average weekly limit) limitations with a sampling frequency of weekly. This is based on 40 CFR 133.102, NDAC 33.1-16-01-14, and BPJ.

#### **TSS**

The department reviewed the TSS data and sampling frequency. No excursions occurred for this parameter from either permitted outfall. The department proposes to continue with the 30 mg/l (30-day arithmetic average) and 45 mg/l (average weekly limit) limitations with a sampling frequency of weekly. This is based on 40 CFR 133.102, NDAC 33.1-16-01-14, and BPJ.

#### рΗ

The department reviewed the pH data and sampling frequency. No excursion occurred for this parameter from outfall 001. One excursion occurred for this parameter from outfall 002. The department proposes to continue with the limitation of shall remain between 7.0 and 9.0 s.u. with a sampling frequency of weekly. This is based on 40 CFR 133.102, NDAC 33.1-16-01-14, and BPJ.

#### Oil and Grease, Visual

The department reviewed the Oil and Grease, visual data and sampling frequency. No excursions occurred for this parameter from either permitted outfall. The department proposes to continue visual checks for sheen with a sampling frequency of daily. This is based on NDAC 33.1-16-02.1 and BPJ.

#### Oil and Grease, mg/l

The department reviewed the Oil and Grease data and sampling frequency. No excursions occurred for this parameter from either permitted outfall. The department proposes to continue with a 10 mg/l (daily maximum) limitation when a sheen is present with a sampling frequency of conditional/daily. This is based on NDAC 33.1-16-02.1 and BPJ.

#### **Phosphorus and Nitrogen (Nutrients)**

No phoshorus and nitrogen discharge limits currently exist for this facility. However, nutrient monitoring is included in this permit. According to the North Dakota Nutrient Reduction Strategy for Surface Waters, The West Fargo POTW is classified as a Category I facility. The first step in implementing the nutrient reduction strategy for Category I facilities is to include effluent monitoring for nutrients (total nitrogen (TN) and total phosphorus (TP)) during the permit cycle.

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This monitoring information will be evaluated as part of the nutrient evaluation of the Sheyenne River.

During the last permit cycle, the facility reported components of total nitrogen (TKN and nitrate & nitrite). In order to align with the state nutrient reduction strategy, the department proposes to change sampling and reporting requirements from TKN and nitrate & nitrite to simply total nitrogen.

#### Ammonia as N

The department conducted Reasonable Potential analyses (RP) for ammonia as N for both outfalls for the City of West Fargo. Based on these analyses, the department concluded there was reasonable potential to exceed the "North Dakota Standards of Quality for Waters of the State" for ammonia as N (**Appendix C**). The department determined to include effluent limitations for ammonia as N with a sampling frequency of three (3) per week based upon NDAC 33.1-16-02.1 and BPJ.

The department proposes the following requirements for ammonia as N:

Table 8: Ammonia Effluent Limitations and Monitoring Requirements Outfall 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/	*	*	*		
pH upstream, S.U. 2/	*	*	*		

<sup>\*</sup> This parameter is not limited. However, the department may impose limitations based on sample history and to protect the receiving waters.

- 1/ Calculations must be performed for each discharge sample. If an exceedance is detected on any single discharge 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 05059500 at West Fargo, North Dakota.

#### † Chronic Standard (Average Monthly Limit):

The 30-day average concentration of total ammonia (expressed as N in mg/L) does not exceed the numerical value given by the following formula:

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

where CV = 2.85, when T < 14°C; or

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Table 8: Ammonia Effluent Limitations and Monitoring Requirements Outfall 001 and 002.				
Effluent Limitations				
Parameter	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit	

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

#### **‡ Acute Standard (Daily Maximum Limit)**

The total ammonia (expressed as N in mg/l) does not exceed the numerical value given by the following formula:

$$\frac{(0.411)}{(1+10^{7.204-pH}}$$
 + 58.4)  
where salmonids are absent: or

#### **Stipulations**

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

If the upstream values are not collected, then the following values are to be used:

- pH: 8.7 S.U., based on the 90th percentile of collected instream data,
- Temperature values used during the winter months can be extrapolated from available USGS data using best professional judgement,
- Permittee shall use the 90<sup>th</sup> percentile instream ammonia value of 0.23 mg/l,
- If the upstream flow is not available, the 1B3 critical low flow value of 61.9 cfs must be used.

The maximum mixing factor with the receiving stream is 10.0%.

#### Escherichia coli (E coli)

The department reviewed the *E. coli* data and sampling frequency. There were two (2) exceedances (daily max and monthly geometric mean) for this parameter for outfall 002 in April 2019. Less than one (1) foot of freeboard existed in the lagoon cell, and the discharge was considered necessary to avoid overtopping the lagoon dike. The department proposes to continue with a 126 #/100ml (30-day arithmetic average) and 409 #/100ml (Daily maximum) limitations with sampling frequency of once per week. *Escherichia* coli limitations apply from April 1 through October 31. This is based on NDAC 33.1-16-02.1 and BPJ.

#### **Metals**

The department conducted a metals analysis utilizing the maximum concentration for the identified metals and compared them to the WQS (**Appendix C**). The maximum concentration for mercury exceeded the WQS. This is an analyses issue due to laboratory equipment limitations. Laboratories with lower detection levels for mercury may have to be utilized for future analyses. The City of West Fargo submitted the required Mercury Minimization Plan during the previous permit cycle with no indications of problems existing within its service area. The City will also implement the Amalgam Rule (40 CFR Part 441) requirements during this permit cycle. The department proposes to continue with monitoring for this parameter with a sampling frequency of annual.

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#### Whole Effluent Toxicity (WET)

Outfall 001 and 002: The department has reviewed the WET testing data and sampling frequency for both outfalls. The department conducted WET reasonable potential analyses for both outfalls. Based on these analyses, it was determined that there is reasonable potential to exceed the acute standard of less than 1.0 (0.99 TU<sub>a</sub> entered into the RP determination spreadsheet to represent less than 1.0 TU<sub>a</sub>) Toxic Units (TU<sub>a</sub>) at both outfalls for *Pimephales promelas* (Fathead Minnow) (**Appendix C**). No WET failures were observed for *Ceriodaphnia dubia* (Water Flea) during the previous permit cycle. Therefore, no RP analyses were conducted for the water flea.

The department is proposing the following requirements for WET testing:

Table 9: WET requirements for Outfalls 001 and 002						
Implementation	Limitations Impo	sed				
Effluent Dilution	0%(Control)	12.5%	25%	50%	75%	100%
Dilution Water	Sheyenne River <sup>a</sup>					•
Testing Type	Acute Toxicity					
Species and Test Type	Ceriodaphnia du	ıbia 48 Hou	Acute Sta	tic Renewal	20°C	
Species and Test Type	Pimephales pro	nelas 96 Ho	our Acute S	Static Renew	al 20°C	
Endpoint Survival reported as TU <sub>a</sub>						
Compliance Point	End of pipe					
Sample Frequency	1/Quarter <sup>b</sup>					
Sample Type	Sample Type Grab					
Maximum Daily Limit (MDL)	<1 TUa					
Average Monthly Limit (AML)	<1 TU <sub>a</sub>					
The 48-hour LC <sub>50</sub> effluent value must be <1 TU <sub>a</sub> to indicate a passing Any 48-hour LC <sub>50</sub> effluent value >1 TU <sub>a</sub> will constitute a failure. Tests which the control survival is less than 90% are invalid and must be repeated.			Tests in			
Reporting Requirements	The permittee shall report the following results of each toxicity test on the DMR for that reporting period:  Report the highest TU <sub>a</sub> for <i>Ceriodaphnia dubia</i> , Parameter No. TSM3B. Report the highest TU <sub>a</sub> for <i>Pimephales promelas</i> , Parameter No. TSN6C.					

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 <u>5.Toxicity Reduction Evaluation</u> (TRE) shall be determined by the department. If no toxicity is found in the second test, testing shall occur as outlined in the permit.

a. When dangerous conditions exist for personnel (i.e. thin ice, melting ice, flooding, etc.) the permittee may utilize moderately hard reconstituted water upon request and approval by the department.

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b. WET tests shall be performed on the first discharge made each calendar year, unless specifically waived by the department. Thereafter, WET tests shall be performed at least once every calendar quarter in which there is a discharge.

The department is proposing to continue with TU<sub>a</sub> of less than 1 (<1) in order to meet the requirements of NDAC 33.1-16-02.1-08(a)(4), which states that "[a]II 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 WET requirements in NDPDES 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 NDAC 33.1-16-02.1, 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 <u>"Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms</u>," EPA-821-R-02-012 (Fifth Ed., October 2002).

#### **Chronic Toxicity Testing**

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

#### **Biosolids**

Currently, the department does not have the authority to regulate biosolids. Therefore, the permittee is required under the Direct Enforceability provisions 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.

#### **Human Health**

North Dakota's water quality standards include numeric human health-based criteria that the department must consider when writing NDPDES permits. These criteria were established in 1992 by the U.S. EPA in its National Toxics Rule (40 CFR 131.36). The National Toxics Rule allows states to use mixing zones to evaluate whether discharges comply with human health criteria. 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.

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#### OTHER PERMIT CONDITIONS

#### **Pretreatment**

The department has been delegated authority to administer the Industrial Pretreatment Program in 2005. With the delegation of authority, the department issues wastewater discharge permits for significant industrial users to POTWs that have not been delegated authority to issue their own industrial wastewater discharge permits. The requirements for approved pretreatment programs are contained in 40 CFR 403.

West Fargo's pretreatment program was approved in June 1999. With an approved pretreatment program, the permit shall contain general pretreatment language and requirements. In addition to the general limitations and requirements outlined in the permit, the permittee shall sample and analyze the following:

Table 10: Additional Pretreatment Sampling Requirements.				
Minimum Frequency of Monitoring				
Table II Priority Pollutants 40 CFR 122 Appendix D	1/2 Years			
Table III Metals 40 CFR 122 Appendix D	1/Quarter			

Table 10 Cont.: Monitoring Requirements 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 <sup>a</sup>					

#### 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.

### Sanitary Sewer Overflows (SSOs)

Outfall 003 has been identified in this permit as a gate-valve outlet located in Cell 9. This outfall is not a permitted outfall. Any discharge from outfall 003 is considered an un-authorized discharge which must be monitored for the parameters specified for Outfalls 001 and 002. All SSOs must be reported to the department in accordance with 40 CFR 122.41(6), Part III(G) of the permit, and as specified under the Reporting, Record Keeping, and Public Notification for Unauthorized Sanitary Sewer Overflow section outlined below.

Outfall 003. Non Active.						
Latitude: 46.925287	Longitude: -96.78585	County: Cass	3			
Township: 139N	Range: 49W	Section: 6	SWNW			
Receiving Stream: Shey	enne River via Sheyenne	Classification:	Classification: Class I			
Diversion						
Outfall Description: Inactive gate valve that can be opened to the Sheyenne Diversion.						
Permittee states that the valve is never used						

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If an un-permitted discharge occurs from outfall 003, the following parameters must be monitored and reported to the department on the DMR for outfall 003:

Table 11: Self-Monitoring Requirements for Outfall 003						
Effluent Parameter	Frequency	Sample Type				
BOD <sub>5</sub> , mg/l, effluent	Daily	Grab				
TSS, mg/l, effluent	Daily	Grab				
pH, S.U.	Daily	Grab				
Oil and Grease Visual a	Daily	Visual				
Oil & Grease, mg/l <sup>a</sup>	Conditional/Daily	Grab				
Ammonia as N, mg/l	Daily	Grab				
Escherichia coli (E.coli) geo	Daily	Grab				
mean, #/100ml						
Total Flow, MGD	Daily	Instantaneous				
Total Drain, MG	1/Quarter	Calculated				

a/ 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.

## Reporting, Record Keeping, and Public Notification for Unauthorized Sanitary Sewer Overflows.

#### 1. <u>Immediate Reporting</u>

The permittee shall report to the department any sanitary sewer overflow or any unauthorized sanitary sewer overflow that the permittee owns and/or operates. Any information shall be provided as directed in the **24-Hour Notice of Noncompliance Reporting** section of the permit and as listed below. At a minimum, the report shall identify:

- i. The location of the overflow;
- ii. The receiving water (if there is one);
- iii. The duration of the overflow; and
- iv. The estimated volume of the overflow.

An overflow is any spill, release, or diversion of municipal sewage, including:

- i. An overflow that results in a discharge to water of the state; and
- ii. An overflow of wastewater, including a wastewater backup into a building (other than a backup caused solely by a blockage or other malfunction in a privately-owned sewer or building lateral), even if that overflow does not reach waters of the state.

#### 2. Written Reports

The permittee shall also provide a written report to the department for any overflow identified under paragraph 1 of this section within five (5) days from the time the permittee becomes aware of the circumstances. The written report shall contain a description of:

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- i. The location of the overflow:
- ii. The receiving water (if there is one);
- iii. An estimate of the overflow volume:
- iv. A description of the sewer-system component that caused the release (e.g. manhole, constructed overflow pipe, pipe break, etc.);
- v. The estimated date and time when the overflow began and stopped or will be stopped;
- vi. The cause or suspected cause of the overflow;
- vii. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
- viii. If possible, the number of persons who came into contact with wastewater from the overflow; and
- ix. Steps taken or planned to mitigate the impact(s) from the overflow and a schedule of major milestones for those steps.

The department may waive the written report on a case-by-case basis for reports under paragraph A. of this section if the verbal report required under Part II paragraph 1 has been received within twenty-four (24) hours.

Discharge Monitoring Reports (DMRs) – the permittee shall report any overflow that is not reported under Part II.1 or 2.A. in the DMR required by this permit. The DMR shall contain the information listed in Part II 2.A of this permit.

#### 3. Record Keeping

The permittee must maintain a record of the following information for a period of at least three (3) years from the date of the reported overflow event:

- i. Any report submitted under paragraph 2 above; and
- ii. Any report, including work orders that are associated with investigation of system problems related to an overflow that describes the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow, or documents system performance.

#### 4. Notice

The department may require the permittee to notify specified parties of overflows that may endanger health. Where the permittee is required to make such notification, the following can be used:

- i. The permittee is to develop a plan describing how to notify, under various overflow (and unanticipated bypass and upset) scenarios, the public and other entities of overflows that may endanger health.
- ii. This plan should identify all reportable overflows and the specific information reported to each entity receiving notification.
- iii. The permittee must immediately notify the public, health agencies, and other affected entities (e.g. public water systems) of any sanitary sewer overflow that the permittee controls.
- iv. The permittee shall sample at the SSO location(s) and at any receiving water to identify and illustrate any potential impacts on the receiving stream. These data must be reported to any downstream users.

#### 5. Proper Operation and Maintenance

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The permittee is to implement proper operation and maintenance of the collection system (40 CFR 122.41(d) and (e)). At the request of the department, this may include the development and implementation of capacity, management, operation, and management (CMOM) programs.

#### PERMIT ISSUANCE PROCEDURES

#### **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.

#### **Proposed Permit Issuance**

The 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.

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#### **APPENDIX A - PUBLIC INVOLVEMENT INFORMATION**

The department proposes to reissue a permit to the **City of West Fargo**. 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 **August 5, 2019** in the **Fargo Forum** to inform the public and to invite comment on the proposed draft North Dakota Pollutant Discharge Elimination System permit and fact sheet.

#### The Notice -

- Indicates where copies of the draft Permit and Fact Sheet are available for public evaluation.
- Offers to provide assistance to accommodate special needs.
- Urges individuals 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 Environmental Quality
Division of Water Quality
918 East Divide Avenue, 4<sup>th</sup> Floor
Bismarck, ND 58501

The primary author of this permit and fact sheet is Jeff Roerick.

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Name of the Newspaper: The Forum

#### North Dakota Department of Environmental Quality Public Notice Reissue of an NDPDES Permit

Public Notice Date: 8/5/2019

#### 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

Public Notice Number: ND-2019-018

Application Date: 1/29/2019 Application Number: ND0022616

Applicant Name: West Fargo City Of

Mailing Address: 810 12th Ave NW, West Fargo, ND 58078

Telephone Number: 701.433.5402,701.433.5400 Proposed Permit Expiration Date: 9/30/2024

#### Facility Description

The reapplication is for ten (10) wastewater stabilization ponds servicing the City of West Fargo. The City of West Fargo has two permitted outfalls (001 and 002) and one (1) inactive outfall (003) that does not discharge. Discharges from the permitted outfalls will be to the Sheyenne River, a Class IA stream, via ditch #21 and the Sheyenne River Diversion.

#### **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 Env Quality, Div of Water Quality, 918 East Divide Ave, Bismarck ND 58501-1947 or by calling 701.328.5210.

All comments received by September 03, 2019 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.

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#### **APPENDIX B - DEFINITIONS**

#### **DEFINITIONS Standard Permit** BP 2019.05.29

- 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 Environmental Quality, 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<sup>th</sup> 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.

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- 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 2017.04.06

- 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/"IC25").
- 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).

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#### PERMIT SPECIFIC DEFINITIONS

- "Class IA Stream" means the quality of the waters in this class shall be the same as the quality of class I streams, except that where natural conditions exceed class I criteria for municipal and domestic use, the availability of softening or other treatment methods maybe considered in determining whether ambient water quality meets the drinking water requirements of the department.
- 2. "Class III streams" means the quality of the waters in this class shall be suitable for agricultural and industrial uses. Streams in this class generally have low average flows with prolonged periods of no flow. During periods of no flow, they are of limited value for recreation and fish and aquatic biota. The quality of these waters must be maintained to protect secondary contact recreation uses (e.g., wading), fish and aquatic biota, and wildlife uses.



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#### APPENDIX C - DATA AND TECHNICAL CALCULATIONS

The department obtained stream flow data from USGS site: 0505400 from April 1, 2009 through March 31, 2019. Below are the critical low flows calculated by USGS Toolbox 1.0.4 – Multiple\*.

\*\*\*RESULTS: USGS 05059500 SHEYENNE RIVER AT WEST FARGO, ND\*\*\*

All available data from Apr 1, 2009 through Mar 31, 2019 are included in analysis.

Seasonal Calculation? No Season Or Year Start 1-Apr Season Or Year End 31-Mar

Years Included in Calculations 2008~2019

Start 2008 End 2019

Flow Statistic Flow Value Percentile x-day avg. Excur. per 3 yr.

1B3 61.939 0.03% 0.27273 4B3 96.466 1.06% 0.81818 30B3 140.82 6.08% 0.81818

Flow Statistic Flow Value Percentile 1-day Excur. per 3 yr.

7Q10 82.073 0.49% 0.27273 1Q10 79.498 0.43% 0.27273

Harmonic Mean 371.55 32.06% N/A

Harmonic Mean, Adjusted 356.78 30.63% N/A

\*\*\*RESULTS: USGS 05059500 SHEYENNE RIVER AT WEST FARGO, ND\*\*\* File Edit View Help All available data from Apr 1, 2009 through Mar 31, 2019 are included in analysis Display Options: 05059500 Climatic year defined as Apr 1 - Mar 31. Seasonal Calculation? Season Or Year Start 1-Apr Season Or Year End 31-Mar Years Included in Calculations 2008~2019 2008 Start End 2019 Flow Statistic Flow Value | Percentile | x-day avg. Excur. per 3 yr. 1B3 0.27273 61.939 0.03% 4B3 96.466 1.06% 0.81818 30B3 140.82 6.08% 0.81818 Flow Statistic Flow Value Percentile 1-day Excur. per 3 yr. 7Q10 82.073 0.49% 0.27273 1Q10 0.43% 0.27273 79.498 Harmonic Mean 371.55 32.06% N/A Harmonic Mean, Adjusted 30.63% N/A Double-click on biological flow value (xBy column) to view excursion analysis result for a gage

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**REASONABLE POTENTIAL** 

#### **Ammonia**

# 001:

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 0.4.

		Det	ermination			
Technical Su	pport Doc	ument (TSI	)) For ∀ater Qua	lity-based	Toxics C	ontrol
		EPA/505/2	-90-001; March 1	991		
Facility Name:	West	Fargo	Receiving Stream	Red River	of the North	i .
NDPDES Permit:	ND00	022616	1Q10 Acute	79.5	ofs	
Daily Maximum Fl	ow (mgd):	13.50	1B3 Acute	61.9	ofs	
Daily Average Flo	w (mgd):	6.80	7Q10 Chronic	82.1	cfs	
Stream Design Mi	ixing:	10.0%	4B3 Chronic	96.5	ofs	
Statistical Multipli		1.8				
Upstream Conce		0.2300	mg/l		arameter	
Effluent Concetra	ation (max):	12.9000	mg/l	An	nmonia as	N
		(StatCeC	e)+(Cs(pmf)Qs)		Outfall:	
	RWC		+(pmf)Qs		001	
			1			
_			ne resultant magni			
			oncentration (also			
Stat = Statistical multiplier for effluent parameter (Table 3-1 and 3-2; page 57 of the TS						e TSD)
Qe = Effluent Des	-					
Ce = Highest efflu						
pmf = Partial mix f	actor, perc	ent of Qs allo	owed for mixing by		-	
pmf = Partial mix f Qs = Receiving W	actor, perc ater Flow (*	ent of Qs allo 1Q10 or 1B3 f	owed for mixing by or acute and 7Q10		-	
pmf = Partial mix f	actor, perc ater Flow (*	ent of Qs allo 1Q10 or 1B3 f	owed for mixing by or acute and 7Q10		-	
pmf = Partial mix f Qs = Receiving W	actor, perc ater Flow (*	ent of Qs allo 1Q10 or 1B3 f	owed for mixing by or acute and 7Q10		-	
pmf = Partial mix f Qs = Receiving W Cs = Background	actor, perc /ater Flow (*   concentra	ent of Qs allo 1Q10 or 1B3 f ition of the re	owed for mixing by or acute and 7Q10 ceiving water.	or 4B3 for	chronic)	
pmf = Partial mix f Qs = Receiving W Cs = Background Qe - Acute	actor, perc /ater Flow (†   concentra   13.50	ent of Qs allo 1Q10 or 1B3 f tion of the re mgd	owed for mixing by or acute and 7Q10 ceiving water. Qs - 1Q10	or 4B3 for 51.36	chronic) mgd	
pmf = Partial mix f Qs = Receiving W Cs = Background Qe - Acute Qe - Chronic	actor, perc /ater Flow (*   concentra   13.50   6.80	ent of Qs allo 1Q10 or 1B3 f tion of the re mgd mgd	owed for mixing by or acute and 7Q10 ceiving water. Qs - 1Q10 Qs - 1B3	51.36 39.99	ehronie) mgd mgd mgd	
pmf = Partial mix f Qs = Receiving \w Cs = Background Qe - Acute Qe - Chronic Ce	actor, perc /ater Flow (*   concentra   13.50   6.80   12.9000	ent of Qs alk 1Q10 or 1B3 fi tion of the re mgd mgd mg/l	owed for mixing by or acute and 7Q10 ceiving water. Qs - 1Q10 Qs - 1B3 Qs - 7Q10	51.36 39.99 53.04	ehronie) mgd mgd	
pmf = Partial mix f Qs = Receiving \w Cs = Background Qe - Acute Qe - Chronic Ce	actor, perc /ater Flow (*   concentra   13.50   6.80   12.9000   0.2300	ent of Qs alk 1Q10 or 1B3 fi tion of the re mgd mgd mg/l	owed for mixing by or acute and 7Q10 ceiving water. Qs - 1Q10 Qs - 1B3 Qs - 7Q10	51.36 39.99 53.04	ehronie) mgd mgd mgd	
pmf = Partial mix f Qs = Receiving \w Cs = Background Qe - Acute Qe - Chronic Ce Cs Stat	actor, pero /ater Flow (* l concentra 13.50 6.80 12.9000 0.2300 1.80	ent of Qs alk 1Q10 or 1B3 fi tion of the re mgd mgd mg/l	owed for mixing by or acute and 7Q10 ceiving water. Qs - 1Q10 Qs - 1B3 Qs - 7Q10	51.36 39.99 53.04	ehronie) mgd mgd mgd	
pmf = Partial mix f Qs = Receiving \w Cs = Background Qe - Acute Qe - Chronic Ce Cs Stat	actor, pero /ater Flow (* l concentra 13.50 6.80 12.9000 0.2300 1.80	ent of Qs alk 1Q10 or 1B3 fi tion of the re mgd mgd mg/l	owed for mixing by or acute and 7Q10 ceiving water. Qs - 1Q10 Qs - 1B3 Qs - 7Q10	51.36 39.99 53.04	ehronie) mgd mgd mgd	
pmf = Partial mix f Qs = Receiving w Cs = Background Qe - Acute Qe - Chronic Ce Cs Stat pmf	actor, pero /ater Flow (* l concentra 13.50 6.80 12.9000 0.2300 1.80	ent of Qs alk 1Q10 or 1B3 fi tion of the re mgd mgd mg/l	owed for mixing by or acute and 7Q10 ceiving water. Qs - 1Q10 Qs - 1B3 Qs - 7Q10 Qs - 4B3	51.36 39.99 53.04	ehronie) mgd mgd mgd	
pmf = Partial mix f Qs = Receiving w Cs = Background Qe - Acute Qe - Chronic Ce Cs Stat pmf	actor, perc /ater Flow (*) concentra 13.50 6.80 12.9000 0.2300 1.80 10.0%	ent of Qs allo IQ10 or 1B3 f tion of the re mgd mgd mg/l mg/l	owed for mixing by or acute and 7Q10 ceiving water. Qs - 1Q10 Qs - 1B3 Qs - 7Q10 Qs - 4B3	51.36 39.99 53.04 62.34	mgd mgd mgd mgd mgd	
pmf = Partial mix f Qs = Receiving W Cs = Background Qe - Acute Qe - Chronic Ce Cs Stat pmf Acute RP RWC - 1Q10	actor, perc /ater Flow (1 concentral 13.50 6.80 12.9000 0.2300 1.80 10.0% 16.8843 17.9664	ent of Qs allo 1Q10 or 1B3 f tion of the re mgd mgd mg/l mg/l mg/l	owed for mixing by or acute and 7Q10 ceiving water. Qs - 1Q10 Qs - 1B3 Qs - 7Q10 Qs - 4B3 Chronic RP RWC - 7Q10 RWC - 4B3	51.36 39.99 53.04 62.34 13.1461 12.2243	mgd mgd mgd mgd mgd mgd	
pmf = Partial mix f Qs = Receiving W Cs = Background Qe - Acute Qe - Chronic Ce Cs Stat pmf Acute RP RWC - 1Q10 Criterion Maximur	actor, perc /ater Flow (1 concentral 13.50 6.80 12.9000 0.2300 1.80 10.0% 16.8843 17.9664 In Concentral	ent of Qs allo 1Q10 or 1B3 f tion of the re mgd mgd mg/l mg/l mg/l ation (CMC)	owed for mixing by or acute and 7Q10 ceiving water. Qs - 1Q10 Qs - 1B3 Qs - 7Q10 Qs - 4B3  Chronic RP RWC - 7Q10 RWC - 4B3  Criterion Continue	51.36 39.99 53.04 62.34 13.1461 12.2243 ous Concer	mgd mgd mgd mgd mgd mgd mgd mgd	CC)
pmf = Partial mix f Qs = Receiving W Cs = Background Qe - Acute Qe - Chronic Ce Cs Stat pmf Acute RP RWC - 1Q10	actor, perc /ater Flow (1 concentral 13.50 6.80 12.9000 0.2300 1.80 10.0% 16.8843 17.9664	ent of Qs allo 1Q10 or 1B3 f tion of the re mgd mgd mg/l mg/l mg/l	owed for mixing by or acute and 7Q10 ceiving water. Qs - 1Q10 Qs - 1B3 Qs - 7Q10 Qs - 4B3 Chronic RP RWC - 7Q10 RWC - 4B3	51.36 39.99 53.04 62.34 13.1461 12.2243 ous Concer	mgd mgd mgd mgd mgd mgd	CC)
pmf = Partial mix f Qs = Receiving W Cs = Background Qe - Acute Qe - Chronic Ce Cs Stat pmf Acute RP RWC - 1Q10 RWC - 1B3 Criterion Maximur Acute Criterion	actor, perc /ater Flow (1 concentral 13.50 6.80 12.9000 0.2300 1.80 10.0% 16.8843 17.9664 In Concentral	ent of Qs allo IQ10 or 1B3 f tion of the re mgd mgd mg/l mg/l mg/l ation (CMC) mg/l	owed for mixing by or acute and 7Q10 ceiving water. Qs - 1Q10 Qs - 1B3 Qs - 7Q10 Qs - 4B3  Chronic RP RWC - 7Q10 RWC - 4B3  Criterion Continue	51.36 39.99 53.04 62.34 13.1461 12.2243 ous Concer 1.7700	mgd	
pmf = Partial mix f Qs = Receiving W Cs = Background Qe - Acute Qe - Chronic Ce Cs Stat pmf Acute RP RWC - 1Q10 RWC - 1B3 Criterion Maximur Acute Criterion	actor, perc /ater Flow (1 concentral 13.50 6.80 12.9000 0.2300 1.80 10.0% 16.8843 17.9664 In Concentral 7.24	ent of Qs allo IQ10 or 1B3 fi tion of the re mgd mgd mg/l mg/l mg/l ation (CMC) mg/l ster than its re	owed for mixing by or acute and 7Q10 ceiving water.  Qs - 1Q10 Qs - 1B3 Qs - 7Q10 Qs - 4B3  Chronic RP RWC - 7Q10 RWC - 4B3  Criterion Continue chronic Criterion ceiterion ceiterion cespective criterion	51.36 39.99 53.04 62.34 13.1461 12.2243 ous Concer 1.7700	mgd	
pmf = Partial mix f Qs = Receiving W Cs = Background Qe - Acute Qe - Chronic Ce Cs Stat pmf Acute RP RWC - 1Q10 RWC - 1B3 Criterion Maximur Acute Criterion If the calculated F less than the crite	actor, perc /ater Flow (1 concentral 13.50 6.80 12.9000 0.2300 1.80 10.0% 16.8843 17.9664 In Concentral 7.24 RWC is greater then the	ent of Qs allo IQ10 or 1B3 fi tion of the re mgd mgd mg/l mg/l mg/l ation (CMC) mg/l ster than its re	owed for mixing by or acute and 7Q10 ceiving water.  Qs - 1Q10 Qs - 1B3 Qs - 7Q10 Qs - 4B3  Chronic RP RWC - 7Q10 RWC - 4B3  Criterion Continue chronic Criterion ceiterion ceiterion cespective criterion	51.36 39.99 53.04 62.34 13.1461 12.2243 ous Concer 1.7700 then there	mgd mgd mgd mgd mgd mgd mgd stration (CC mg/l is RP and if	
pmf = Partial mix f Qs = Receiving W Cs = Background Qe - Acute Qe - Chronic Ce Cs Stat pmf Acute RP RWC - 1Q10 RWC - 1B3 Criterion Maximur Acute Criterion	actor, perc /ater Flow (1 concentral 13.50 6.80 12.9000 0.2300 1.80 10.0% 16.8843 17.9664 In Concentral 7.24 RWC is greater then the	ent of Qs allo IQ10 or 1B3 fi tion of the re mgd mgd mg/l mg/l mg/l ation (CMC) mg/l ster than its re	owed for mixing by or acute and 7Q10 ceiving water.  Qs - 1Q10 Qs - 1B3 Qs - 7Q10 Qs - 4B3  Chronic RP RWC - 7Q10 RWC - 4B3  Criterion Continue chronic Criterion ceiterion ceiterion cespective criterion	51.36 39.99 53.04 62.34 13.1461 12.2243 ous Concer 1.7700	mgd mgd mgd mgd mgd mgd mgd mgd mg/l mg/l s RP and il	

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<u>002:</u>

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.

			er Concentrat	•	C)	
	·		ble Potential	(RP)		
		Det	ermination			
Technical Su	pport Doc	ument (TSI	) For ∀ater Qua	ality-based	Toxics Co	ontrol
		EPA/505/2	-90-001; March 1	1991		
Facility Name:	West	Fargo	Receiving Stream	Red River	of the North	
NDPDES Permit:	ND00	22616	1Q10 Acute	79.5	ofs	
Daily Maximum Fl	ow (mgd):	20.00	1B3 Acute	61.9	ofs	
Daily Average Flo	w (mgd):	11.50	7Q10 Chronic	82.1	ofs	
Stream Design M	ixing:	10.0%	4B3 Chronic	96.5	ofs	
Statistical Multipli	ier:	4.2				
Upstream Conce	ntration:	0.2300	mg/l	F	arameter:	
Effluent Concetra	ation (max):	45.6000	mg/l	An	nmonia as	N
		(0,-,0-0	)-1-(C-(0C-)		Outfall:	
	RWC		(e)+(Cs(pmf)Qs)		Outrail:	
		Цe	+(pmf)Qs		002	
RWC = Receiving	water cond	entration, th	ne resultant magni	tude of con	centration i	n the
			oncentration (also			
Stat = Statistical :	multiplier for	effluent par	ameter (Table 3-1	and 3-2; pa	age 57 of th	e TSD)
Qe = Effluent Des						
Ce = Highest efflu	ent concer	ntration repo	orted.			
pmf = Partial mix f	actor, perc	ent of Qs alk	owed for mixing by	State author	ority.	
•			or acute and 7Q10		-	
Cs = Background						
				E4.00		
Qe - Acute	20.00	mgd	Qs - 1Q10	51.36	mgd	
Qe - Chronic	11.50	mgd "	Qs - 1B3	39.99	mgd	
Ce	45.6000	mg/l	Qs - 7Q10	53.04	mgd	
Cs	0.2300	mg/l	Qs - 4B3	62.34	mgd	
Stat	4.20					
pmf	10.0%					
Acute RP			Chronic RP			
RWC - 1Q10	152.4358	mg/l	RWC - 7Q10	131.1440	mg/l	
RWC - 1B3	159.6467	mg/l	RWC - 4B3	124.2769	mg/l	
Criterion Maximus	n Concepts	ation (CMC)	Criterion Continu	ous Concer	i otration (CC	C)
Acute Criterion	7.24	mg/l	Chronic Criterion		mg/l	_,
		_			-	
	_		espective criterion	then there	is RP and if	RWCis
less than the crite	erion then th	ere is no RF	2.			
CMC RP Prese	nt:			CCC RP	Present:	
1Q10 Acute OR	YES			7Q10 Chr		YES
1B3 Acute	YES			4B3 Chro	nic	YES
biologically base	d design an	d harmonic i	i andards (WQS) Ch mean flows to dete ient Toxicity (WET)	ermine Wate		sed

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The department used the following criteria to determine the acute and chronic ammonia criterion for the reasonable potential analysis.

Г		Flow Varia	able Calcul	ated Efflu	ent Ammoi	nia Concent	rations in mg/l				Flow Variable Calculated Effluent Ammonia Concentrations in mg/l									
D	ischarger:		West Fargo -	Outfall 001			Enter the upstream ammonia in mg/l:					90th %	0.26							
s	tream:		Sheyenne Ri	ver			Enter the receiving stream pH:				90th %	8.19								
Eı	nter receiving st	ream flow (CFS	):			62	Enter the receiving stream temperature in Deg C: 64 F				Yes	17.90								
N	lixing Zone Perce	entage/CFS:			10%	6.2	Enter the effluent	t drain rate (N	IGD):			Yes	15.94							
Eı	nter increments	to calculate str	eam flow:			1.0	Enter increments	to calculate	drain rate:				1.0							
	Mixing Zone Dilution Rate:											1.3								
	Overall Dilution Rate:											3.5								
Maximum allowable ammonia in mg/l																				
		Water Quality Standard: 5.8393 Water Quality Standard: 3.6628 Water Quality Standard						lity Standard	:	1.4651										
		Intermittent	1hr Acute			Intermittent 4	Day Chronic			Continuous 30	Day Chronic	:								
D	RAIN MGD	→ 14.94	15.94	16.94	17.94	14.94	15.94	16.94	17.94	14.94	15.94	16.94	17.94							
S	TREAM FLOW in	CFS																		
	2.19	6.37	6.33	6.31	6.28	3.99	3.97	3.95	3.93	1.58	1.57	1.57	1.56							
	3.19	6.61	6.56	6.52	6.48	4.13	4.10	4.08	4.05	1.63	1.62	1.61	1.60							
	4.19	6.85	6.79	6.73	6.68	4.28	4.24	4.21	4.18	1.68	1.67	1.66	1.65							
	5.19	7.09	7.01	6.94	6.88	4.43	4.38	4.34	4.30	1.74	1.72	1.70	1.69							
	6.19	7.33	7.24	7.16	7.08	4.57	4.52	4.47	4.42	1.79	1.77	1.75	1.73							
	7.19	7.58	7.47	7.37	7.28	4.72	4.66	4.60	4.54	1.84	1.82	1.80	1.78							
	8.19	7.82	7.69	7.58	7.49	4.87	4.79	4.73	4.67	1.89	1.87	1.84	1.82							
	9.19	8.06	7.92	7.80	7.69	5.02	4.93	4.86	4.79	1.94	1.91	1.89	1.86							
	10.19	8.30	8.14	8.01	7.89	5.16	5.07	4.99	4.91	2.00	1.96	1.93	1.91							

Г		Flow Vari	able Calcu	lated Efflue	ent Ammoi	nia Concenti	rations in mg/l					Estimated	
Di	ischarger:		West Fargo	Outfall 002			Enter the upstrea	am ammonia i	n mg/l:			90th %	0.26
St	tream:		Sheyenne R	iver			Enter the receiving	ng stream pH:				90th %	8.19
Eı	nter receiving st	ream flow (CFS	S):			62	Enter the receiving	ng stream ten	perature in Deg	1 C:	64 F	Yes	17.90
М	lixing Zone Perc	entage/CFS:			10%	6.2	2 Enter the effluent drain rate (MGD):					Yes	15.94
Eı	nter increments	to calculate str	eam flow:		1.0 Enter increments to calculate drain rate:							1.0	
	Mixing Zone Dilution Rate:										1.3		
										Overall Dilution			3.5
Maximum allowable ammonia in mg/l													
						Water Qua	lity Standard	:	1.4651				
П		Intermittent 1hr Acute Intermittent 4 Day Chronic Continuou				Continuous 30	Day Chronic	;					
D	RAIN MGD	→ 14.94	15.94	16.94	17.94	14.94	15.94	16.94	17.94	14.94	15.94	16.94	17.94
S	TREAM FLOW in	CFS											
	2.19	6.37	6.33	6.31	6.28	3.99	3.97	3.95	3.93	1.58	1.57	1.57	1.56
	3.19	6.61	6.56	6.52	6.48	4.13	4.10	4.08	4.05	1.63	1.62	1.61	1.60
	4.19	6.85	6.79	6.73	6.68	4.28	4.24	4.21	4.18	1.68	1.67	1.66	1.65
	5.19	7.09	7.01	6.94	6.88	4.43	4.38	4.34	4.30	1.74	1.72	1.70	1.69
Г	6.19	7.33	7.24	7.16	7.08	4.57	4.52	4.47	4.42	1.79	1.77	1.75	1.73
Ī	7.19	7.58	7.47	7.37	7.28	4.72	4.66	4.60	4.54	1.84	1.82	1.80	1.78
,	<b>♦</b> 8.19	7.82	7.69	7.58	7.49	4.87	4.79	4.73	4.67	1.89	1.87	1.84	1.82
	9.19	8.06	7.92	7.80	7.69	5.02	4.93	4.86	4.79	1.94	1.91	1.89	1.86
	10.19	8.30	8.14	8.01	7.89	5.16	5.07	4.99	4.91	2.00	1.96	1.93	1.91

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# **Whole Effluent Toxicity (WET)**

The reasonable potential determination for WET 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 0.1.

		Dete	ermination			
Technical Su	ipport Do	cument (TSD	) For Water Qualit	y-based T	oxics Con	trol
			90-001; March 199	-		
acility Name:	City of	West Fargo	Receiving Stream:	Sheyenne	River	
NDPDES Permit:	ND0	022616	1Q10 Acute	79.5	cfs	
ffluent Flow (mgd):		13.500	1B3 Acute	61.939	cfs	
Stream Design Mixin	g:	0.0%	7Q10 Chronic	82.07	cfs	
WET TUa (max):		1.14	4B3 Chronic	96.47	cfs	
ACR:						
Statistical Multiplier:		1.2				
		StatQeCe			Outfall:	
	RWC	Qe+(pmf)Qs			001	
		ac · (piiii)us			001	
RWC = Receiving wa after effluent discha Stat = Statistical mult	rge in TUs	(also known a	as the in-stream wa	ste concen	tration)	
Qe = Effluent Design	Flow		_			
Ce = Highest Toxicity	/ Unit (TU)	reported. (Us	e 1 if no WET data i	s available.	)	
pmf = Partial mix fac	tor, percer	nt of Qs allowe	ed for mixing by Stat	e authority.		
Qs = Receiving Wate	er Flow (1	210 or 1B3 for	acute and 7Q10 or	4B3 for ch	ronic)	
Qe	13.500	mgd	Qs - Acute	51.357	mgd	
Ce	1.14	TU	Qs - Acute 1B3	40.013	mgd	
omf	0.0%		Qs - Chronic	53.017	mgd	
Stat	1.2		Qs - Chronic 4B3	62.320	mgd	
ACR	0.00					
AI- DD			Chronic RP			
	1.37	TUa	RWC - 7Q10	0.00	TUc	
RWC - 1Q10		TUa	RWC - 4B3	0.00	TUc	
RWC - 1Q10	1.37					
RWC - 1Q10 RWC - 1B3						
Acute RP RWC - 1Q10 RWC - 1B3 Criterion Maximum C	oncentrati		Criterion Continuou			
RWC - 1Q10 RWC - 1B3		on (CMC) TUa	Criterion Continuou Chronic Criterion	Concentra 1.0	ation (CCC) TUc	
RWC - 1Q10 RWC - 1B3 Criterion Maximum C Acute Criterion	oncentration 0.99	TÙa	Chronic Criterion	1.0	TUc	
RWC - 1Q10 RWC - 1B3  Criterion Maximum C Acute Criterion	oncentration 0.99	TÙa r than its resp	Chronic Criterion	1.0	TUc	
RWC - 1Q10 RWC - 1B3  Criterion Maximum C Acute Criterion  If the calculated RWo than the criterion the	oncentration 0.99	TÙa r than its resp	Chronic Criterion	1.0 there is RP	TUc and if RWC	
RWC - 1Q10 RWC - 1B3  Criterion Maximum C Acute Criterion  If the calculated RW than the criterion the	oncentration 0.99 C is greated in there is	TÙa r than its resp	Chronic Criterion	1.0 there is RP	TUc and if RWC	
RWC - 1Q10 RWC - 1B3  Criterion Maximum C Acute Criterion  If the calculated RW than the criterion the	oncentration 0.99	TÙa r than its resp	Chronic Criterion	1.0 there is RP	and if RWC	

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endpoints.

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Facility Name: NDPDES Permit: Effluent Flow (mgd): Stream Design Mixing WET TUa (max):	oport Do	Dete	le Potential (le ermination )) For Water Qualit 90-001; March 199	•	ovice Con	
Facility Name: NDPDES Permit: Effluent Flow (mgd): Stream Design Mixing WET TUa (max):	City of	cument (TSD EPA/505/2-9	)) For Water Qualit	y-based T	ovice Con	
Facility Name: NDPDES Permit: Effluent Flow (mgd): Stream Design Mixing WET TUa (max):	City of	EPA/505/2-9	•	y-based T	ovice Con	
Facility Name: NDPDES Permit: Effluent Flow (mgd): Stream Design Mixing WET TUa (max):	City of	EPA/505/2-9	•		UNICO CUII	trol
NDPDES Permit: Effluent Flow (mgd): Stream Design Mixing WET TUa (max):	_	West Fargo		1		
NDPDES Permit: Effluent Flow (mgd): Stream Design Mixing WET TUa (max):	_		Receiving Stream:	Shevenne	River	
Stream Design Mixing WET TUa (max):		022616	1Q10 Acute	79.5		
WET TUa (max):		20.000	1B3 Acute	61.939	cfs	
	:	0.0%	7Q10 Chronic	82.07	cfs	
ACR:		1.27	4B3 Chronic	96.47	cfs	
TOTAL						
Statistical Multiplier:		1.3				
		StatQeCe			Outfall:	
	RWC	Qe+(pmf)Qs		•	002	
after effluent dischar	olier for e	-				)
Qe = Effluent Design I						
Ce = Highest Toxicity						
pmf = Partial mix facto						
Ωs = Receiving Water	Flow (10	210 or 1B3 for	r acute and 7Q10 or	4B3 for ch	ronic)	
Qe	20.000	mgd	Qs - Acute	51.357	mgd	
Ce	1.27	TU	Qs - Acute 1B3	40.013	mgd	
omf	0.0%	10	Qs - Chronic	53.017	mgd	
Stat	1.3		Qs - Chronic 4B3	62.320	mgd	
ACR	0.00		Q3 - CIII OIIIC 4D3	02.020	iliga	
	0.00					
Acute RP			Chronic RP			
RWC - 1Q10	1.65	TUa	RWC - 7Q10	0.00	TUc	
RWC - 1B3	1.65	TUa	RWC - 4B3	0.00	TUc	
Criterion Maximum Co			Criterion Continuou			
Acute Criterion	0.99	TUa	Chronic Criterion	1.0	TUc	
f the calculated RWC	is greate	r than its resp	ective criterion then	there is RP	and if RWC	is less
than the criterion then						.5 .000
CMC RP Present:				CCC RP P		
1Q10 Acute OR	YES			7Q10 Chr		
1B3 Acute	YES			4B3 Chro	nic	

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# **Metals Analysis**

The department conducted a metals analysis utilizing the maximum concentration for the identified metals and compared them to the WQS. Parameters which were below method detection level were entered at the detection limit value.

The department has on Dakota Standards of Collimits for the parameter						1				
limits for the paramet							calculations and			
	ters list	ted can l	be found in	ch 33.1-16-	02.1-9 Ta	able 1.				
Parameters indicated	as "H[	D-Hardn	ess Depende	ent" are les	s toxic as	the calcium ca	rbonate hardness			
of the receiving stream										
stream is entered abo	ove. A	hardnes	s value in gi	ains per ga	llon can a	also be entered				
Items in bold or an * i	indicat	e a para	meter that	needs furth	er evalua	ition. Paramete	ers listed above			
must be analyzed usir	ng an E	PA appr	roved metho	d that has	a detecti	on limit at or be	low the limits as			
listed in the current v	ersion	of the N	Iorth Dakota	Standards	of Qualit	ty for Waters of	the State ch33-			
16-02.										
acility Name			West Fargo	City of		Print Date:	7/25/2019			
ocation.			Outfall 001			Below are the	current or	Acute WQS		
nter Grains/Gallon or				0		calculated acu	ite and chronic		ma	ba
lardness - Total (CaCO				479.3			ed on the data	Cadmium	1.0166	-3.924
Multiplying Factor:						entered.		Copper	0.9422	-1.7
Inter Concentration Va	lues					μg/I	μg/I	Chromium(III)	0.819	3.7256
Parameter		Detect	mg/I	μg/I	μg/I	Acute	Chronic	Lead	1.273	-1.46
Antimony	$\vdash$	<	0.00125	1.25	1.25	7.000	3	Nickel	0.846	2.255
Arsenic			0.00245	2.45	2.45	340	150	Silver	1.72	-6.59
Beryllium		<		0.5				Zinc	0.8473	0.884
Cadmium	HD		0.0001	0.1	0.1	10.5	0.86			
Chromium - Total			0.0025		2.5					
Chromium (III)	HD				0	6508	311			
Chromium (VI)					0	16	11	Chronic WQS		
Copper	HD		0.0115	11.5	11.5	61	35.6		ma	ba
.ead	HD		0.00014	1	0.14	600	35.6	Cadmium	0.7409	-4.719
Viercury			0.0002	0.2	0.2	1.7	0.012	Copper	0.8545	-1.702
Molybdenum - Total					0			Chromium(III)	0.819	0.6848
Vickel	HD		0.0068		6.8	1767	196.4	Lead	1.273	-4.705
Selenium			0.004		4	20	5	Nickel	0.846	0.0584
Silver	HD		0.000125		0.125	56		Silver		
Thallium		<	0.0002		0.2			Zinc	0.8473	0.884
	HD		0.05		50	452	452.1			
Zinc Zinc		-	0.005							
Zinc Cyanide - Total		<	0.005 1.28		5 1280	22	5.2		#VALUE!	

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# APPENDIX D - RESPONSE TO COMMENTS

Comments received during the 30-day public notice period will be placed here.



Permit No: ND0022616
Effective Date: October 1, 2019
Expiration Date: September 30, 2024

# AUTHORIZATION TO DISCHARGE UNDER THE NORTH DAKOTA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with Chapter 33.1-16-01 of the North Dakota Department of Environmental Quality rules as promulgated under Chapter 61-28 (North Dakota Water Pollution Control Act) of the North Dakota Century Code,

the City of West Fargo West Fargo Publicly Owned Treatment Works (POTW)
is authorized to discharge from its wastewater treatment system
to the Sheyenne River (a Class IA stream) via drainage ditch Number 21 or the Sheyenne River Diversion
provided all the conditions of this permit are met.
This permit and the authorization to discharge shall expire at midnight,
September 30, 2024.
Signed this day of,
Karl H. Rockeman, P.E. Director Division of Water Quality

BP 2019.05.29

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#### **DEFINITIONS Standard Permit** BP 2019.05.29

- 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 Environmental Quality, 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<sup>th</sup> 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 2017.04.06

- 1. "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").
- 2. "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/"IC25").
- 3. "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).
- 4. "**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.
- 5. "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).

# PERMIT SPECIFIC DEFINITIONS

- "Class IA Stream" means the quality of the waters in this class shall be the same as the quality of class I streams, except that where natural conditions exceed class I criteria for municipal and domestic use, the availability of softening or other treatment methods maybe considered in determining whether ambient water quality meets the drinking water requirements of the department.
- 2. "Class III streams" means the quality of the waters in this class shall be suitable for agricultural and industrial uses. Streams in this class generally have low average flows with prolonged periods of no flow. During periods of no flow, they are of limited value for recreation and fish and aquatic biota. The quality of these waters must be maintained to protect secondary contact recreation uses (e.g., wading), fish and aquatic biota, and wildlife uses.

# **OUTFALL DESCRIPTION**

Discharges at any location not authorized under a NDPDES permit is a violation of the Clean Water Act (CWA) and could subject the person(s) responsible for such discharge to penalties under section 309 of the CWA. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge within the specified timeframe outlined in this permit could subject such person(s) to criminal penalties as provided under the CWA.

Outfall 001. Active. Final.							
Latitude: 46.902222	Longitude: -96.919444	County: Cass					
Township: 140N	Range: 49W	Section: 31	SENW				
Receiving Stream: Sheyenn	e River via Drain #21	Classification: C	Class III				
Outfall Description: Any disc	Outfall Description: Any discharge from this point is from any Cell in the system via Cell 2 or 7						
to the Sheyenne River – a C	Class IA stream - via Drain #21	, a Class III stream	m.				

Outfall 002. Active. Final.								
Latitude: 46.887506	Longitude: -96.936631	County: Cass						
Township: 139N	Range: 50W	Section: 1	SENW					
Receiving Stream: Sheye	enne River via Sheyenne River	Classification: Class III						
Diversion.								
Outfall Description: Any discharge from this point is from Cell 9 or 10 to the Sheyenne River -								
a Class IA Stream - via t	he Sheyenne Diversion, a Class	III stream.						

# PERMIT SUBMITTALS SUMMARY

Coverage Point	Submittal	Frequency	Submittal Date(s)
001A	Discharge Monitoring Report	Monthly	November 30, 2019 – 1 <sup>st</sup> submittal
002A	Discharge Monitoring Report	Monthly	November 30, 2019 – 1 <sup>st</sup> submittal
001W	Discharge Monitoring Report	Quarterly	January 31, 2020 April 30, 2020 July 31, 2020 October 31, 2020
002W	Discharge Monitoring Report	Quarterly	January 31, 2020 April 30, 2020 July 31, 2020 October 31, 2020
001M	Discharge Monitoring Report	1/Year	April 30, 2020
002M	Discharge Monitoring Report	1/Year	April 30, 2020
Table II Priority Pollutants 40 CFR 122 Appendix D	Pretreatment Annual Report	2 <sup>nd</sup> & 4 <sup>th</sup> year of permit	March 28, 2020 – 1st submittal
Mercury Minimization Plan (MMP) Update	MMP Update	1/permit	April 30, 2020
Application Renewal	NPDES Application Renewal	1/permit cycle	April 1, 2024

Note: The A, M, and W are pollutant designators referring to Conventional (A), Metals (M), and Whole Effluent Toxicity (W).

#### **SPECIAL CONDITIONS**

# **Mercury Pollutant Minimization Plan**

The permittee has previously submitted a mercury minimization plan (MMP), so the permittee shall update the MMP and submit it to the department. The purpose of the MMP is to evaluate collection and treatment systems to determine possible sources of mercury as well as potential mercury reduction options. Guidelines for developing a MMP are below.

The permittee shall submit the update within **180 days of the permit effective date**. At a minimum, the MMP must include the following:

- a) A summary of mercury influent and effluent concentrations and biosolids monitoring data using the most recent five (5) years of monitoring data.
- b) Identification of existing and potential sources of mercury concentrations and/or loading to the facility. The following sources should be considered: residential, institutional, municipal, and commercial (dental clinics, hospitals, medical clinics, nursing homes, schools, industries with potential for mercury contributions), stormwater inputs, ground water inflow and infiltration (I/I) inputs, and waste streams or sewer tributaries to the wastewater treatment facility.
- c) An evaluation of past and present wastewater treatment facility operations to determine those operating procedures that maximize mercury removal.
- d) A summary of mercury reduction activities implemented during the past five (5) years.
- e) A plan to implement mercury management and reduction measures during the next five (5) years.

In addition to the sampling required in this permit, the permittee shall sample effluent from the total facility discharge station for dissolved mercury annually throughout the life of this permit. The sampling method is a concurrent grab sample. Dissolved mercury shall be analyzed using an EPA approved mercury analysis method outlined in 40 CFR 136. Samples shall be taken at any time during the calendar year and reported on the custom supplemental form provided by the department. A trip blank shall be analyzed for each sampling event. The custom supplemental form must be submitted with the DMR for the last month the reporting period it was collected.

# Sanitary Sewer Overflows (SSO)

Reporting, Record Keeping, and Public Notification for Unauthorized SSOs

# 1. Immediate Reporting

The permittee shall report to the department any sanitary sewer overflow or any unauthorized sanitary sewer overflow that the permittee owns and/or operates. Any information shall be provided as directed in the **24-Hour Notice of Noncompliance Reporting** section of the permit and as listed below. At a minimum, the report shall identify:

- i. The location of the overflow:
- ii. The receiving water (if there is one);
- iii. The duration of the overflow; and
- iv. The estimated volume of the overflow.

An overflow is any spill, release, or diversion of municipal sewage, including:

i. An overflow that results in a discharge to water of the state; and

ii. An overflow of wastewater, including a wastewater backup into a building (other than a backup caused solely by a blockage or other malfunction in a privately-owned sewer or building lateral), even if that overflow does not reach waters of the state.

# 2. Written Reports

The permittee shall also provide a written report to the department for any overflow identified under paragraph 1 of this section within five (5) days from the time the permittee becomes aware of the circumstances. The written report shall contain a description of:

- i. The location of the overflow;
- ii. The receiving water (if there is one);
- iii. An estimate of the overflow volume:
- iv. A description of the sewer-system component that caused the release (e.g. manhole, constructed overflow pipe, pipe break, etc.);
- v. The estimated date and time when the overflow began and stopped or will be stopped;
- vi. The cause or suspected cause of the overflow;
- vii. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
- viii. If possible, the number of persons who came into contact with wastewater from the overflow; and
- ix. Steps taken or planned to mitigate the impact(s) from the overflow and a schedule of major milestones for those steps.

The department may waive the written report on a case-by-case basis for reports under paragraph A. of this section if the verbal report required under Part II paragraph 1 has been received within twenty-four (24) hours.

Discharge Monitoring Reports (DMRs) – the permittee shall report any overflow that is not reported under Part II.1 or 2.A. in the DMR required by this permit. The DMR shall contain the information listed in Part II 2.A of this permit.

# 3. Record Keeping

The permittee must maintain a record of the following information for a period of at least three (3) years from the date of the reported overflow event:

- i. Any report submitted under paragraph 2 above; and
- ii. Any report, including work orders that are associated with investigation of system problems related to an overflow that describes the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow, or documents system performance.

# 4. Notice

The department may require the permittee to notify specified parties of overflows that may endanger health. Where the permittee is required to make such notification, the following can be used:

- i. The permittee is to develop a plan describing how to notify, under various overflow (and unanticipated bypass and upset) scenarios, the public and other entities of overflows that may endanger health.
- ii. This plan should identify all reportable overflows and the specific information reported to each entity receiving notification.
- iii. The permittee must immediately notify the public, health agencies, and other affected entities (e.g. public water systems) of any sanitary sewer overflow that the permittee controls.

iv. The permittee shall sample at the SSO location(s) and at any receiving water to identify and illustrate any potential impacts on the receiving stream. These data must be reported to any downstream users.

# 5. Proper Operation and Maintenance

The permittee is to implement proper operation and maintenance of the collection system (40 CFR 122.41(d) and (e)). At the request of the department, this may include the development and implementation of capacity, management, operation, and management (CMOM) programs.



#### I. LIMITATIONS AND MONITORING REQUIREMENTS

# A. Discharge Authorization

During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfall as specified to the following: Sheyenne River (a Class IA stream) via Drain #21 and/or Sheyenne River Diversion.

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:

A pre-discharge sample must be taken prior to the start of any discharge from outfalls 001 and 002. This analysis shall be reported to the department. A pre-discharge sample shall be tested for BOD<sub>5</sub>, TSS, pH, Temperature, *E. coli.*, and Ammonia as N. This pre-discharge sample shall represent the first week discharge sample. An additional sample of the actual discharge shall be taken and analyzed on a weekly basis or as specified below for the duration of the discharge.

Effluent Limitations and Monitoring Requirements Outfalls 001 and 002							
Effluent Limitations Mon					Monitoring	Monitoring Requirements	
	Quantity		Concentration				
Parameter	Avg. Monthly Limit	Daily Maximum Limit	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit	Sample Frequency	Sample Type
Biochemical Oxygen Demand (BOD <sub>5</sub> ), mg/l	*	*	25 mg/l	45 mg/l	*	1/Week	Composite
Total Suspended Solids (TSS), mg/l	*	*	30 mg/l	45 mg/l	*	1/Week	Composite
pH, S.U., a/		Shall remain	between 7.0	to 9.0 S.U.		1/Week	Grab
Oil & Grease, Visual, b/	*	*	*	*	*	Daily	Visual
Oil & Grease, mg/l, b/	*	*	*	*	10 mg/l	Conditional/ Daily	Grab
Temperature, C⁰	*	*	*	*	*	1/Week	Grab
Ammonia as N, mg/l		Refer to Ammonia Table				3/Week	Composite
Escherichia coli (E.coli) geo mean, #/100ml, c/	*	*	126	*	409	1/Week	Grab
Nitrogen, Total mg/l	*	*	*	*	*	1/Month	Composite
Phosphorus, Total mg/l	*	*	*	*	*	1/Month	Composite
Effluent Flow, MGD	Report Avg. Monthly Value	Report Max. Daily Value	*	*	*	Daily	Instantaneous
Total Drain, MGAL	*	Report monthly total	*	*	*	1/Month	Calculated
Whole Effluent Toxicity (WET)	Refer to Part I(C)(1) of this permit				1/Quarter	Grab	
Metals, µg/l (Influent and Effluent)	Refer to Part V(C) of this permit				1/Year	Composite	

#### Notes:

- \* This 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. Any single analysis and/or measurement outside this limitation shall be considered a violation of the conditions of this permit.
- b/ 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.
- c/ E. coli limits shall be effective from April 1 through October 31.

#### Stipulations:

The permittee must not discharge any floating solids, visible foam in other than trace amounts, or oily wastes that produce a sheen on the surface of the receiving water.

Samples taken in compliance with the monitoring requirements specified in this permit shall be taken prior to leaving facility property or entering the receiving stream.

Ammonia Effluent Limitations and Monitoring Requirements Outfall 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/	*	*	*	
pH upstream, S.U. 2/	*	*	*	

<sup>\*</sup> This parameter is not limited. However, the department may impose limitations based on sample history and to protect the receiving waters.

- 1/ Calculations must be performed for each discharge sample. If an exceedance is detected on any single discharge 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 05059500 at West Fargo, North Dakota.

# † Chronic Standard (Average Monthly Limit):

The 30-day average concentration of total ammonia (expressed as N in mg/L) does not exceed the numerical value given by the following formula:

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

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

# **‡ Acute Standard (Daily Maximum Limit)**

The total ammonia (expressed as N in mg/l) does not exceed the numerical value given by the following formula:

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

where salmonids are absent; or

# **Stipulations**

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

If the upstream values are not collected, then the following values are to be used:

- pH: 8.7 S.U., based on the 90<sup>th</sup> percentile of collected instream data,
- Temperature values used during the winter months can be extrapolated from available USGS data using best professional judgement,
- Permittee shall use the 90<sup>th</sup> percentile instream ammonia value of 0.23 mg/l,
- If the upstream flow is not available, the 1B3 critical low flow value of 61.9 cfs must be used.

The maximum mixing factor with the receiving stream is 10.0%.

# C. Whole Effluent Toxicity (WET) Requirements BP 2015.08.26

# 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.

WET tests shall be performed on the first discharge made each calendar year, unless specifically waived by the department. Thereafter, tests shall be performed at least once every calendar quarter in which there is a discharge.

# 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.

WET requirements for Outfalls 001 and 002						
Implementation	Limitations Imposed					
Effluent Dilution	0%(Control)	12.5%	25%	50%	75%	100%
Dilution Water	Sheyenne Rive	<b>r</b> a				
Testing Type	Acute Toxicity					
Species and Test Type	Ceriodaphnia dubia 48 Hour Acute Static Renewal 20°C					
Species and Test Type	Pimephales promelas 96 Hour Acute Static Renewal 20°C					
Endpoint	Survival reported as TU <sub>a</sub>					
Compliance Point	End of pipe					
Sample Frequency	1/Quarter <sup>b</sup>					
Sample Type	Grab					
Maximum Daily Limit (MDL)	<1 TU <sub>a</sub>					
Average Monthly Limit (AML)	<1 TU <sub>a</sub>					
Test Failure	The 48-hour LC <sub>50</sub> effluent value must be <1 $TU_a$ to indicate a passing test. Any 48-hour LC <sub>50</sub> effluent value >1 $TU_a$ 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 TU <sub>a</sub> for <i>Ceriodaphnia dubia</i> , Parameter No. TSM3B.  Report the highest TU <sub>a</sub> for <i>Pimephales promelas</i> , Parameter No. TSN6C.					

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 <u>5.Toxicity Reduction Evaluation</u> (TRE) shall be determined by the department. If no toxicity is found in the second test, testing shall occur as outlined in the permit.

- a. When dangerous conditions exist for personnel (i.e. thin ice, melting ice, flooding, etc.) the permittee may utilize moderately hard reconstituted water upon request and approval by the department.
- b. WET tests shall be performed on the first discharge made each calendar year, unless specifically waived by the department. Thereafter, WET tests shall be performed at least once every calendar quarter in which there is a discharge.

# 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.

In the event chronic toxicity testing becomes necessary, all 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

# 1. 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.

# 2. Monthly Testing

If the results of <u>5. Toxicity Reduction Evaluation (TRE)</u> 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 <u>1. Acute Toxicity Testing</u> and/or <u>2. Chronic Toxicity Testing</u>.

# 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:

- a. Submit an alternative control program for compliance with the numerical requirements; or
- b. 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 2019.05.29

# 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 <a href="Part I Effluent Limitations and Monitoring">Part I Effluent Limitations and Monitoring</a> 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 <u>B. Test Procedures</u>. 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 <u>B. Test Procedures</u>, shall be included in the summary on the Discharge Monitoring Report.

# E. Reporting of Monitoring Results

- 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. The permittee must submit DMRs electronically using the electronic information reporting system unless requirements in subsection 3 are met.
- 2. Prior to December 21, 2020, the permittee may elect to electronically submit the following compliance monitoring data and reports instead of mailing paper forms. Beginning December 21, 2020, the permittee must report the following using the electronic reporting system:
  - 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.
  - a. One of the following criteria must be met in order to obtain a waiver. The department reserves the right to deny any waiver request, even if they meet one of the criteria below.
    - 1. No internet access,
    - 2. No computer access,
    - 3. Annual DMRs (upon approval of the department),
    - 4. Employee turnover (3-month periods only), or
    - 5. Short duration permits (upon approval of 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 Environmental Quality 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 <u>E. Signatory Requirements</u> 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 <u>G. Bypass of Treatment Facilities</u>;
  - 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 <u>Part II.E. Reporting of Monitoring Results</u>. 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. <u>Bypass not exceeding limitations</u>. 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. <u>Bypass exceeding limitations-notification requirements.</u>
  - 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. <u>Prohibition of Bypass.</u> 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 <u>1. Anticipated Bypass</u> 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 <u>F. Twenty-four Hour Notice of Noncompliance Reporting and</u>
- 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 PRETREATMENT PROGRAM BP 2009.09.10 Contributing Industries and Pretreatment Program Requirements

# A. Standard Requirements

Permittee shall operate an industrial pretreatment program in accordance with the following permit requirements developed pursuant to Section 402(b)(8) of the Clean Water Act, the General Pretreatment Regulations (40 CFR Part 403), and the approved pretreatment program submitted by the permittee. The approved pretreatment program, and any approved modifications thereto, is hereby incorporated by reference and shall be implemented in a manner consistent with the following requirements:

- 1. Industrial user information shall be updated at a minimum of once per year or at that frequency necessary to ensure that all Industrial Users are properly permitted and/or controlled. The records shall be maintained and updated as necessary;
- 2. The permittee shall sample and inspect each Significant Industrial User (SIU) at least once per calendar year (40 CFR Section 403.8(f)(2)(v)). This is in addition to any industrial self-monitoring activities. If the permittee performs sampling for any SIU, then the permittee shall perform any repeat sampling and analysis within 30 days of becoming aware of the violation (40 CFR Section 403.12(g)(2));
- 3. The permittee shall evaluate whether each SIU needs a plan to control sludge. SIUs must be evaluated within 1 year of being designated a SIU. Where needed, the permittee shall require the SIU to prepare or update, and then implement the plan. Where a slug prevention plan is required, the permittee shall ensure that the plan contains at least the minimum elements required in 40 CFR Section 403.8(f)(2)(vi). If required, the permittee shall incorporate slug control requirements into the control mechanism for the SIU. (40 CFR, Section 403.8(f)(1)(iii)(B)(6)).;
- 4. The permittee shall investigate instances of non-compliance with Pretreatment Standards and requirements indicated in reports and notices required under 40 CFR 403.12, or indicated by analysis, inspection, and surveillance activities.
- 5. The permittee shall enforce all applicable Pretreatment Standards and requirements and obtain remedies for noncompliance by any industrial user.
- 6. The permittee shall control, through the legal authority in the approved pretreatment program, the contribution to the Publicly Owned Treatment Works (POTW) by each industrial user to ensure compliance with applicable Pretreatment Standards and requirements. In the case of industrial

users identified as significant under 40 CFR Section 403.3(v), this control shall be achieved through permit, order, or similar means and shall contain, at a minimum, the following conditions:

- a. Statement of duration (in no case more than five (5) years);
- b. Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator.
- c. Effluent limits based on applicable pretreatment standards, categorical pretreatment standards, local limits, and state and local law.
- d. Self-monitoring, sampling, reporting, notification and recordkeeping requirements, including an identification of the pollutants to be monitored, sampling location, sampling frequency, and sample type, based on the applicable general pretreatment standards in 40 CFR 403, categorical pretreatment standards, local limits, and state and local law.
- e. Statement of applicable civil and criminal penalties for violation of Pretreatment Standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond deadlines mandated by federal statute or regulation.
- f. Requirements to control Slug Discharges, if determined by the POTW to be necessary.
- 7. The permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program as required by 40 CFR Section 403.8(f)(3);
- 8. The approved program shall not be substantially modified by the permittee without the approval of the Approval Authority. Substantial and non-substantial modifications shall follow the procedures outlined in 40 CFR Section 403.18.
- 9. The permittee shall develop, implement, and maintain an enforcement response plan as required by 40 CFR Section 403.8(f)(5); and
- 10. The permittee shall notify all Industrial Users of the users' obligations to comply with applicable requirements under Subtitles C and D of the Resource Conservation and Recovery Act (RCRA) as required by 40 CFR Section 403.8(f)(2)(iii).

# **B.** Local Limits

The permittee shall establish and enforce specific local limits to implement the provisions of 40 CFR sections 403.5(a) and (b), as required by 40 CFR Section 403.5(c). The permittee shall continue to develop these limits as necessary and effectively enforce such limits.

In accordance with EPA policy and with the requirements of 40 CFR sections 403.8(f)(4) and 403.5(c), the permittee shall determine if technically based local limits are necessary to implement the general and specific prohibitions of 40 CFR sections 403.5(a) and (b).

This evaluation should be conducted in accordance with the latest revision of the "<u>EPA Region VIII</u> <u>Strategy for Developing Technically Based Local Limits</u>", and after review of EPA's "<u>Local Limits</u> <u>Development Guidance</u>" **July 2004**. Where the permittee determines that revised or new local limits

are necessary, the permittee shall submit the proposed local limits to the Approval Authority in an approvable form in accordance with 40 CFR Section 403.18.

# C. Sampling and Reporting Requirements

The permittee shall analyze the treatment facility influent and effluent for the presence of the toxic pollutants listed in 40 CFR Part 122 Appendix D (NPDES Application Testing Requirements) Table II and the toxic pollutants in Table III as follows:

			Minimum Frequency of Monitoring		
Table II Priority Pollutants 40 CFR 122 Appendix D			1/2 Years		
Table III Metals 40	CFR 122 Append	1/Quarter			
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	Phenois, 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.

If, based upon information available to the permittee, there is reason to suspect the presence of any toxic or hazardous pollutant listed in Table V, or any other pollutant in a quantity or concentration known or suspected to adversely affect POTW operation, receiving water quality, or solids disposal procedures, analysis for those pollutants shall be performed on both the influent and the effluent as follows:

	Minimum Frequency of Monitoring
Table V Other Toxics	Conditional as specified above

1. Along with the permittee's pretreatment annual report, the permittee will submit a list of compounds included in Table V that are suspected or known to be present in its influent wastewater. This determination shall be based on a review of the permittee's pretreatment program records. The state permitting authority and/or Approval Authority may review and comment on the list and the list may be revised if, in the opinion of the state permitting authority and/or Approval Authority, the list is incomplete. The permittee will perform the analysis on the influent for the revised list of compounds for which there are acceptable testing procedures as follows:

	Minimum Frequency of Monitoring
Revised List of Compounds	0/Year

2. Where the pollutants monitored in accordance with this section are reported as being above the method detection limit, the results for these pollutants shall be reported in the permittee's pretreatment annual report, if required by EPA.

# D. Sludge Sampling and Reporting Requirements

The permittee does not dispose of biosolids and will certify to that in the Pretreatment Annual Report.

# E. Sample Analysis and Sampling Procedure

All analyses shall be in accordance with procedures established in 40 CFR Part 136. Where sampling methods are not specified, the influent and 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 automated composite sampling is inappropriate, at least four (4) grab samples shall be manually taken at equal intervals over a representative 24-hour period, and composited prior to analysis using approved methods; alternatively, the individual grab samples may be analyzed separately and the results from the respective grab samples mathematically combined based on flow (i.e., flow weighted) for the final result.

# **Additional Sampling Requirements**

In addition, the following are identified as pollutants of concern by sampling and analysis of your influent, effluent and/or sludge during local limits development, other chemical monitoring, or through activities associated with or as a result of whole effluent toxicity testing. The following pollutants of concern shall be sampled and analyzed in the influent and effluent as follows:

Parameters	Minimum Frequency of Monitoring	
No additional parameters have been identified at this time.		

# F. Annual Reporting Requirements

The permittee shall prepare annually a list of industrial users, which during the preceding twelve (12) months have significantly violated Pretreatment Standards or requirements. This list is to be published annually in a newspaper of general circulation in the permittee's service area as required by 40 CFR Section 403.8(f)(2)(viii).

In addition, on or before March 28, the permittee shall submit a pretreatment program annual report to the Approval Authority and the state permitting authority that contains the information requested by EPA, or at a minimum the following information:

- 1. An updated list of all SIUs as defined at 40 CFR Section 403.3(v). For each SIU listed the following information shall be included:
  - a. All applicable Standard Industrial Classification (SIC) codes and categorical determinations, as appropriate. In addition, a brief description of the industry and general activities;
  - b. Permit status. Whether each SIU has an unexpired control mechanism and an explanation as to why any SIUs are operating without a current, unexpired control mechanism (e.g. permit);
  - c. A summary of all monitoring activities performed within the previous twelve (12) months. The following information shall be reported.

Total number of SIUs inspected; and Total number of SIUs sampled.

2. For all industrial users that were in Significant Non-Compliance during the previous twelve (12) months, provide the name of the violating industrial user; indicate the nature of the violations, the type and number of actions taken (administrative order, criminal or civil suit, fines or penalties collected, etc.) and current compliance status. Indicate if the company returned to compliance and

- the date compliance was attained. Determination of Significant Non-Compliance shall be performed as defined at 40 CFR Section 403.8(f)(2)(viii)(A-H).
- 3. A summary of all enforcement actions not covered by the paragraph above conducted in accordance with the approved Enforcement Response Plan, as required in 40 CFR Section 403.8(f)(5).
- 4. A list of all SIUs whose authorization to discharge was terminated or revoked during the preceding twelve (12) month period and the reason for termination;
- 5. A report on any Interference, Pass Through, upset or NPDES permit violations known or suspected to be caused by non-domestic discharges of pollutant and actions taken by the permittee in response;
- 6. Verification of publication of industrial users in Significant Non-Compliance;
- 7. Identification of the specific locations, if any, designated by the permittee for receipt (discharge) of trucked or hauled waste, if modified;
- 8. Information as required by the Approval Authority or state permitting authority on the discharge to the POTW from the following activities:
  - a. Ground water clean-up from underground storage tanks;
  - b. Trucked or hauled waste; and,
  - c. Ground water clean-up from RCRA or Superfund sites.
- 9. A description of all changes made during the previous calendar year to the permittee's pretreatment program that were not submitted as substantial or non-substantial modifications to EPA.
- 10. The permittee shall evaluate actual pollutants loadings against the approved Maximum Allowable Headworks Loadings (MAHLs). Where the actual loading exceeds the MAHL, the permittee shall immediately begin a program to either revise the existing local limit and/or undertake such other

studies as necessary to evaluate the cause(s) of the excursion. The permittee shall provide a summary of its intended action.

11. Other information that may be deemed necessary by the Approval Authority.

#### G. Pollutant Restrictions

The permittee shall prohibit the introduction of the following pollutants into the POTW:

- 1. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limit to, wastestreams 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;
- 2. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works are specifically designed to accommodate such discharges;
- 3. 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;
- 4. 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 the POTW;
- 5. 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;
- 6. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;
- 7. 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;
- 8. Any trucked or hauled pollutants, except at discharge points designated by the POTW; and,
- 9. Any specific pollutant that exceeds a local limitation established by the POTW in accordance with the requirements of 40 CFR Section 403.5(c) and (d).
- 10. Any other pollutant which may cause Pass Through or Interference.

# H. Notification Requirements

The permittee shall provide the pretreatment Approval Authority with adequate notice of any substantial change in the volume or character of pollutants being introduced into the treatment works by any SIU introducing pollutants into the treatment works at the time of application for the discharge permit. For the purposes of this section, "substantial change" shall mean a level of change which has a reasonable

probability of affecting the permittee's ability to comply with its permit conditions or to cause a violation of stream standards applied to the receiving water.

Adequate notice shall include information on: (1) the quality and quantity of effluent to be introduced into the treatment works, and (2) any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

#### I. Enforcement Actions

Section 309(f) of the Act provides that EPA may issue a notice to the POTW stating that a determination has been made that appropriate enforcement action must be taken against an industrial user for noncompliance with any Pretreatment Standards and requirements. The notice provides the POTW with thirty (30) days to commence such action. The issuance of such permit notice shall not be construed to limit the authority of the permit issuing authority or Approval Authority.

# J. Enforcement Authority

The state permitting authority and/or the EPA retains, at all times, the right to take legal action against the industrial contributor for violations of a permit 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 NPDES permit violation has occurred because of the failure of the permittee to properly develop and enforce Pretreatment Standards and requirements as necessary to protect the POTW, the state permitting authority and/or Approval Authority shall hold the permittee responsible and may take legal action against the permittee as well as the Indirect Discharger(s) contributing to the permit violation.