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

Public Notice Date: 2/17/2018 Public Notice Number: ND-2018-003

Purpose of Public Notice

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

Permit Information

Application Date: 1/22/2018 Application Number: ND0026115

Applicant Name: Hillsboro WTP

Mailing Address: PO Box 400, Hillsboro, ND 58045-0400

Telephone Number: 701.636.4860

Proposed Permit Expiration Date: 3/31/2023

Facility Description

The reapplication is for a water treatment plant which will supply drinking water to the city of Hillsboro. Wastewater from the operation of the reverse osmosis membranes discharges to the Red River of the North, a Class I stream, located at latitude 47.396685, longitude -96.845293. If needed, the wastewater may also be discharged to an oxbow of the Goose River, a Class IA stream, located at latitude 47.403939, longitude -97.095144.

Tentative Determinations

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

Information Requests and Public Comments

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

All comments received by March 18, 2018 will be considered prior to finalizing the permit. If there is significant interest, a public hearing will be scheduled. Otherwise, the Department will issue the final permit within sixty (60) days of this notice. If you require special facilities or assistance relating to a disability, call TDD at 1.800.366.6868.

FACT SHEET FOR NDPDES PERMIT ND-0026115

PERMIT REISSUE

CITY OF HILLSBORO WATER TREATMENT PLANT

DATE OF THIS FACT SHEET – November 2017

INTRODUCTION

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

The following rules or regulations apply to NDPDES permits:

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

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

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

TABLE OF CONTENTS

BACKGROUND INFORMATION

Table 1 – General Facility Information

Applicant:	City of Hillsboro
Facility Name and Address:	City of Hillsboro – Water Treatment Plant 16181 Half Street, Hillsboro, ND 58045
Permit Number:	ND-0026115
Permit Type:	Minor – Permit Reissuance
Type of Treatment:	BMPs
SIC Code:	4941
Discharge Location:	Goose River, Class IA water body 001: Latitude: 47.403939 Longitude: -97.095144 Red River of the North, Class I water body 002: Latitude: 47.396685 Longitude: -96.845293
Hydrologic Code:	09020109 – Goose River
Population:	1,603 – 2010 Census

Figure 1. Aerial Photograph of the city of Hillsboro's Water Treatment Plant – Hillsboro, ND (Google Earth 8/10/2015)

FACILITY DESCRIPTION

The city of Hillsboro's water treatment plant provides potable drinking water to the city. The city's previous plant provided treatment using iron and manganese removal. It went offline May 1, 2013 and was demolished by July 10, 2013. The new water treatment plant went online on May 1, 2013 and treats water with Reverse Osmosis (RO). The NDPDES permit shall cover the discharge of wastewater generated in the water filtration and treatment processes used in the production of potable water for distribution.

Background

The plant treats ground water utilizing a combination of pressure filters for pre-treatment (1,000 gpm design capacity) as well as reverse osmosis (RO) membranes (800 gpm design capacity) for softening and other dissolved solids removal. The RO process produces a waste stream at a maximum continuous rate of 170 gpm. The wastewater discharge consists of backwash from filtration equipment, concentrate from reverse osmosis treatment and cleaning solutions required for routine maintenance of the treatment equipment. The pressure filters will be backwashed every eight days and will produce 85,000 gallons of backwash water per cycle. An existing 500,000 gallon clearwell was modified into a holding tank to provide settling time for the backwash before discharge. Once settled, the backwash water will be discharged at a rate of 200 gpm. Discharge will occur through the same outfall as the RO concentrate but will occur during plant shutdowns (no RO discharge flow).

The clean-in-place (CIP) solution will also be discharged through the outfall. However, before discharge, the solution will be neutralized and peroxide will be added to partially reduce the biological oxygen demand (BOD) levels. Once this process is complete, the CIP solution will discharge to the modified 500,000 gallon clearwell and mix with the backwash water until the required BOD concentration of 25 mg/l or less is achieved. Once the desired BOD level is achieved the waste stream will be discharged to the Red River.

The plant capacity and wastewater sources are summarized in the table and figure below:

Table 2. Plant Flow Rates

	Finished Water	**Projected Wastewater Flow**	
		Concentrate	Backwash / Cleaning Solutions
Operated 16 hours/day	0.77 mgd max 0.38 mgd avg	0.16 mgd max 0.082 mgd avg	0.08 mgd per week / 0.008 mgd 2 to 3 times per year
Destination	Distribution System	Outfall 002	Old Clearwell before Outfall 002

Discharge Outfall

Outfall 001. Active. Final.			
Latitude: 47.403939	Longitude: -97.095144	County: Traill	
Township: 145N	Range: 51W	Section: 1	QQ: AD

Receiving Stream: Goose River	Classification: Class IA
Outfall Description: This outfall served as the primary outfall for the city's previous WTP. However, it still exists and can be used as a secondary outfall for the current facility if needed. All discharge water is generated from the water treatment process. Any discharge is to the Goose River, a Class IA stream.	

Outfall 002. Active. Final.			
Latitude: 47.396685	Longitude: -96.845293	County: Traill	
Township: 145N	Range: 49W	Section: 12	QQ: BA
Receiving Stream: Red River		Classification: Class I	
Outfall Description: The discharge is a combination of all process wastewater streams generated during the production of finished potable water which includes reverse osmosis concentrate, microfiltration backwash, and membrane cleaning solutions. The discharge will be conveyed via a 12-inch gravity pipeline from the WTP (10 miles) to the Red River, a Class I stream.			

PERMIT STATUS

The department issued the previous permit for this facility on April 1, 2013. The previous permit placed effluent limits on Total Suspended Solids (TSS), pH, Biological Oxygen Demand (BOD_5), and Dissolved Oxygen (DO). Monitoring requirements were placed on Iron, Manganese, Sulfates, Conductivity, Total Residual Chlorine (TRC), and General Chemistry.

SUMMARY OF COMPLIANCE WITH PREVIOUS PERMIT ISSUED

Department staff last conducted a non-sampling compliance inspection on July 19, 2017. The department's assessment of the compliance is based on review of the facility's Discharge Monitoring Reports (DMRs) and inspections conducted by department staff.

Past Discharge Data

The concentration of pollutants in the discharge was reported in discharge monitoring report forms. The effluent is characterized as shown in Table 3.

Table 3. Hillsboro WTP (April, 2013 to September 30, 2017)

Parameter	Units	Range	Average	Permit Limit	Number of Excursions
Outfall 001					
pH	S.U.	7.25 – 7.4	NA	7.0 – 9.0	0
Total Suspended Solids (TSS)	mg/l	4.3 – 21	12.65	30	0
Total Iron	mg/l	0.439 – 7.58	4.01	NA	NA
Total Manganese	mg/l	0.436 – 0.7	0.568	NA	NA

Table 3. Hillsboro WTP (April, 2013 to September 30, 2017)

Parameter	Units	Range	Average	Permit Limit	Number of Excursions
Flow	MGD	0.064 – 0.148	0.106	NA	NA
Outfall 002					
BOD5	mg/l	1 – 7.1	1.95	30 30-Day Average 45 7-Day Average	0
Total Suspended Solids (TSS)	mg/l	0.5 – 15.2	2.71	90	0
Dissolved Oxygen (DO)	mg/l	2.17 - 12	9.2	5 Daily Minimum	8
Total Sulfate	mg/l	116 - 1487	530.06	NA	NA
Conductivity	umho/cm	811 - 3890	2106	NA	NA
pH	S.U.	7.0 – 8.74	NA	7.0 – 9.0	0
Total Residual Chlorine (TRC)	mg/l	0 – 5.3	0.645	NA	NA
Flow	MGD	0.122 – 2.56	0.09	NA	NA

PROPOSED PERMIT LIMITS

EFFLUENT LIMITATIONS

The discharge of wastewater generated in the production of drinking water is not regulated by national effluent limitations guidelines, which establish technology-based effluent limitations for various industries. In the absence of a federal standard, limitations may be determined using "best professional judgment" (BPJ) and "water quality standards" (WQS) to ensure reasonable control technologies are used to prevent potential harmful effects of the discharge. In addition, the department must consider and include limitations necessary to protect water quality standards applicable to the receiving waters.

The proposed effluent limitations shall take effect once the permit becomes active. The effluent limitations and the basis for the limitations are provided in the table below:

Table 4: Comparison of Effluent Limits for Outfall 001 & 002

Effluent Parameter	30-Day Average	7-Day Average	Daily Maximum	Basis [a]
BOD5, mg/l	30	45	*	BPJ
Total Suspended Solids (TSS), mg/l	*	*	90	BPJ

Table 4: Comparison of Effluent Limits for Outfall 001 & 002

Effluent Parameter	30-Day Average	7-Day Average	Daily Maximum	Basis [a]
Dissolved Oxygen (DO), mg/l	*	*	5 minimum [b]	WQS
Total Sulfate, mg/l	*	*	*	WQS
Conductivity, umho/cm	*	*	*	BPJ
pH, SU	Shall remain between 7.0 to 9.0			WQS
Total Residual Chlorine (TRC), mg/l	*	*	*	WQS
Flow, MGD [d]	*	*	*	BPJ
There shall be no discharge of floating solids or visible foam in other than trace amounts, nor a discharge which causes a visible sheen in the receiving waters.				WQS

Notes:

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

a. The basis of the effluent limitations is given below:

"Previous Permit" refers to limitations in the previous permit. The NPDES regulations **40 CFR Part 122.44(1)(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 33-16-02.1.

"BPJ" refers to limits based on the department's "best professional judgment" which considers the technology available at the facility for controlling the discharge.

b. Dissolved Oxygen limitation is a 5 mg/l Daily Minimum.

c. Any discharge to the Red River when the river flow is below 90 cfs at the Halstad, MN USGS gage station 05064500 shall be restricted.

SELF-MONITORING REQUIREMENTS

All effluent is sampled at a point leaving outfall 001 and 002 but prior to entering waters of the state.

Table 5: Self-Monitoring Requirements for Outfall 001 & 002

Effluent Parameter	Frequency	Sample Type [a]
BOD5, mg/l	1/Month	Grab
TSS, mg/l	2/Month	Grab
Dissolved Oxygen, mg/l	1/Week	Grab
Total Sulfate, mg/l [b]	2/Month	Grab
Conductivity, umho/cm [b]	2/Month	Grab
pH, SU	Continuous	Recorder
TRC, mg/l	1/Week	Grab
Flow, MGD	1/Day	Instantaneous
Total Drain, MG	1/Month	Calculated
Red River Parameter		
Red River Flow, cfs	1/Day	USGS Gage 05064500
Notes:		
a. Refer to Appendix B for definitions.		
b. When the flow in the Red River at Halstad, MN is less than 90 cfs the sampling frequency shall be once per week.		

SURFACE WATER QUALITY-BASED EFFLUENT LIMITS

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

This segment of the Red River currently does not have a TMDL and is not on the Section 303(d) List of Waters Needing a TMDL. The department will assess the status of this segment during the next permit cycle.

This segment of the Goose River currently does not have a TMDL and is not on the Section 303(d) List of Waters Needing a TMDL. The department will assess the status of this segment during the next permit cycle.

Numerical Criteria for the Protection of Aquatic Life and Recreation

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

limits are more stringent or potentially more stringent than technology-based limits, the discharge must meet the water quality-based limits.

Numerical Criteria for the Protection of Human Health

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

Narrative Criteria

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

Antidegradation

The purpose of North Dakota's Antidegradation Policy (NDAC Chapter 33-16-02.1 - 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.

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

Mixing Zones

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

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

BOD_5

Using BPJ the department has determined that a limitation of 30 mg/l monthly average and 45 mg/l daily maximum BOD is appropriate for this type of facility. Other membrane water treatment plants in the state have similar limitations.

The BOD_5 limit is continued from the previous permit. After reviewing the facility's DMR data, the department proposes to grant the permittee's request for reduced frequency of monitoring of BOD_5 by reducing the monitoring frequency from twice per month to once per month.

TSS

Other membrane water treatment plants in the state have been afforded a limit of 90 mg/l for TSS and so the department proposes to continue with the same limit here by using BPJ.

The TSS limit is continued from the previous permit.

pH

The limitation for pH is based on the state water quality standard applicable to this water body classification. For Class I and IA streams, the pH limitation is from 7.0 to 9.0 S.U.

The pH limit is continued from the previous permit.

Dissolved Oxygen

Other water treatment plants utilizing membrane filtration in the state have been afforded a limit of 5 mg/l daily minimum for DO and so the department proposes to continue with the same limit here by using BPJ.

DMR forms reported 8 excursions of the DO limit. The DO limit is continued from the previous permit.

Total Chloride (Appendix C)

The Department performed a reasonable potential analysis and found "NO" potential to exceed the state WQS. Therefore, the Department believes that monitoring is applicable.

Total Sulfate (Appendix C)

The Department performed a reasonable potential analysis and found "NO" potential to exceed the state WQS. Therefore, the Department believes that monitoring is applicable.

Monitoring Parameters

After reviewing General Chemistry Analysis results with ambient data, the department found no reasonable potential for the exeedence of ambient conditions and therefore proposes to remove the quarterly General Chemistry Analysis requirement. The department will require a General Chemistry Analysis to be completed along with the application at the time of the next permit renewal.

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.

MONITORING REQUIREMENTS

The department requires monitoring, recording, and reporting (NDAC Chapter 33-16-01-(21 through 23) and 40 CFR 122.41) to verify that the treatment process is functioning correctly and that the discharge complies with the permit's limits.

TEST PROCEDURES

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

OTHER PERMIT CONDITIONS

WATER TREATMENT ADDITIVES

The membrane filtration equipment requires routine cleaning and conditioning as part of normal operation. Care should be used in the selection and management of the chemicals used in routine cleaning and conditioning, such as the control of scaling, coagulants, flocculants, and bio-fouling. To ensure selection and management of chemicals minimize the potential for harmful effects in the discharge or sewering, the permittee will be required to provide (upon request) the following information on all chemical additives:

- Material Safety Data Sheet (MSDS)
- Proposed water additive discharge concentration
- Discharge frequency (i.e., number of hours per day and number of days per year)
- Monitoring point for product discharge
- Type of removal treatment, if any, that the water additive receives prior to discharge
- Product function (e.g,. microbiocide, flocculant, etc.)
- A 48-hour LC_{50} or EC_{50} for a North American freshwater planktonic crustacean (*Ceriodaphnia* sp., *Daphnia* sp., or *Simocephalus* sp.)
- Results for a toxicity test for one other North American freshwater aquatic species (other than a planktonic crustacean)

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.

The department must be notified, in advance, of any facility expansions, additions, or modifications to increase the amount of discharge. The increase in any effluent limitation is considered a major permit modification. Major modifications require the issuance of a public notice inviting public comment.

PROPOSED PERMIT ISSUANCE

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

APPENDIX A – PUBLIC INVOVLEMENT INFORMATION

The department proposes to reissue a permit to the **City of Hillsboro, North Dakota** for its water treatment plant. 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 **February 17, 2018** in the **Traill County Tribune** 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 Health
Division of Water Quality
918 East Divide Avenue, 4th Floor
Bismarck, ND 58501

The primary author of this permit and fact sheet is Sarah Starr.

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

Public Notice Date: 2/17/2018 Public Notice Number: ND-2018-003

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

Permit Information
Application Date: 1/22/2018 Application Number: ND0026115

Applicant Name: Hillsboro WTP
Mailing Address: PO Box 400, Hillsboro, ND 58045-0400
Telephone Number: 701.636.4860

Proposed Permit Expiration Date: 3/31/2023

Facility Description
The reapplication is for a water treatment plant which will supply drinking water to the city of Hillsboro. Wastewater from the operation of the reverse osmosis membranes discharges to the Red River of the North, a Class I stream, located at latitude 47.396685, longitude -96.845293. If needed, the wastewater may also be discharged to an oxbow of the Goose River, a Class IA stream, located at latitude 47.403939, longitude -97.095144.

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

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

All comments received by March 18, 2018 will be considered prior to finalizing the permit. If there is significant interest, a public hearing will be scheduled. Otherwise, the Department will issue the final permit within sixty (60) days of this notice. If you require special facilities or assistance relating to a disability, call TDD at 1.800.366.6868.

APPENDIX B – DEFINITIONS

DEFINITIONS Standard Permit BP 2013.12.31

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

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

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

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

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

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

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

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

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

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

11. "**Geometric mean**" means the nth 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.

APPENDIX C – DATA AND TECHNICAL CALCULATIONS

DFLOW

USGS gage station 05064500 on the Red River of the North was used to determine critical low flows using the DFLOW (3.1b) program.

DFLOW 1B3 (ACUTE)	304	CFS	DFLOW 1Q10 (ACUTE)	339	CFS
DFLOW 4B3 (CHRONIC)	306	CFS	DFLOW 7Q10 (CHRONIC)	368	CFS
DFLOW 30B10 (AMMONIA)	N/A	CFS			

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

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

Facility Name:	Hillsboro WTP		Receiving Stream:	Red River	
NDPDES Permit:	ND0026115		1Q10 Acute	339	cfs
Daily Maximum Flow (mgd):		2.56	1B3 Acute	304	cfs
Daily Average Flow (mgd):		0.09	7Q10 Chronic	368	cfs
Stream Design Mixing:		10.0%	4B3 Chronic	306	cfs
Statistical Multiplier:		1.4			
Upstream Concentration:		20.3000	mg/l	**Parameter:**	
Effluent Concetration (max):		24.0000	mg/l	**Total Chlorides**	

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

Outfall: 002

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

Qe - Acute	2.56	mgd	Qs - 1Q10	218.99	mgd
Qe - Chronic	0.09	mgd	Qs - 1B3	196.38	mgd
Ce	24.0000	mg/l	Qs - 7Q10	237.73	mgd
Cs	20.3000	mg/l	Qs - 4B3	197.68	mgd
Stat	1.40				
pmf	10.0%				

Acute RP			Chronic RP		
RWC - 1Q10	21.6920	mg/l	RWC - 7Q10	20.3502	mg/l
RWC - 1B3	21.8338	mg/l	RWC - 4B3	20.3603	mg/l

Criterion Maximum Concentration (CMC)			Criterion Continuous Concentration (CCC)		
Acute Criterion	100	mg/l	Chronic Criterion	100.0000	mg/l

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

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

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

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

Facility Name:	Hillsboro WTP		Receiving Stream:	Red River	
NDPDES Permit:	ND0026115		1Q10 Acute	339	cfs
Daily Maximum Flow (mgd):		2.56	1B3 Acute	304	cfs
Daily Average Flow (mgd):		0.09	7Q10 Chronic	368	cfs
Stream Design Mixing:		10.0%	4B3 Chronic	306	cfs
Statistical Multiplier:		1.4			
Upstream Concentration:		135.6127	mg/l	**Parameter:**	
Effluent Concetration (max):		615.8571	mg/l	**Total Sulfate**	

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

Outfall: **002**

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

Qe - Acute	2.56	mgd	Qs - 1Q10	218.99	mgd
Qe - Chronic	0.09	mgd	Qs - 1B3	196.38	mgd
Ce	615.8571	mg/l	Qs - 7Q10	237.73	mgd
Cs	135.6127	mg/l	Qs - 4B3	197.68	mgd
Stat	1.40				
pmf	10.0%				

Acute RP			Chronic RP		
RWC - 1Q10	211.6597	mg/l	RWC - 7Q10	138.3531	mg/l
RWC - 1B3	219.4054	mg/l	RWC - 4B3	138.9058	mg/l

Criterion Maximum Concentration (CMC)			Criterion Continuous Concentration (CCC)		
Acute Criterion	250	mg/l	Chronic Criterion	250.0000	mg/l

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

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

APPENDIX D – RESPONSE TO COMMENTS

Comments received by the department during the Public Comment period will be placed here.

Permit No: ND-0026115
Effective Date: April 1, 2018
Expiration Date: March 31, 2023

AUTHORIZATION TO DISCHARGE UNDER THE

NORTH DAKOTA POLLUTANT DISCHARGE ELIMINATION SYSTEM

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

City of Hillsboro
Hillsboro Water Treatment Plant

is authorized to discharge from the Hillsboro Water Treatment Plant

to the Goose River, a Class IA stream and the Red River of the North, a Class I stream

provided all the conditions of this permit are met.

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

March 31, 2023.

Signed this _____ day of _____, _____.

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

BP 2014.06.12

This page is intentionally left blank

TABLE OF CONTENTS

DEFINITIONS Standard Permit BP 2013.12.31

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

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

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

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

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

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

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

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

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

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

11. "**Geometric mean**" means the nth 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.

OUTFALL DESCRIPTION

Outfall 001. Active. Final.			
Latitude: 47.403939	Longitude: -97.095144	County: Traill	
Township: 145N	Range: 51W	Section: 1	QQ: AD
Receiving Stream: Goose River		Classification: Class IA	
Outfall Description: This outfall served as the primary outfall for the city's previous WTP. However, it still exists and can be used as a secondary outfall for the current facility if needed. All discharge water is generated from the water treatment process. Any discharge is to the Goose River, a Class IA stream.			

Outfall 002. Active. Final.			
Latitude: 47.396685	Longitude: -96.845293	County: Traill	
Township: 145N	Range: 49W	Section: 12	QQ: BA
Receiving Stream: Red River		Classification: Class I	
Outfall Description: The discharge is a combination of all process wastewater streams generated during the production of finished potable water which includes reverse osmosis concentrate, microfiltration backwash, and membrane cleaning solutions. The discharge will be conveyed via a 12-inch gravity pipeline from the WTP (10 miles) to the Red River, a Class I stream.			

PERMIT SUBMITTALS SUMMARY

Coverage Point	Submittal	Frequency	First Submittal Date
001A	Discharge Monitoring Report	1/Quarter	July 31, 2018
002A	Discharge Monitoring Report	1/Quarter	July 31, 2018
Application Renewal	NPDES Application Renewal	1/permit cycle	October 1, 2022

SPECIAL CONDITIONS

Water Treatment Additive Information

To ensure selection and management of chemicals used in this facility minimize the potential for harmful effects in the discharge, the permittee may be required to provide, upon request, the following information on chemical additives. The information on the chemical additives shall include the following usage and discharge information:

a. Material Safety Data Sheet (MSDS);

b. The proposed water additive discharge concentration;

c. The discharge frequency (i.e., number of hours per day and number of days per year);

d. The monitoring point from which the product is to be discharged;

e. The type of removal treatment, if any, that the water additive receives prior to discharge;

f. Product function (i.e., microbiocide, flocculant, etc.);

g. A 48-hour LC_{50} or EC_{50} for a North American freshwater planktonic crustacean (either *Ceriodaphnia* sp., *Daphnia* sp. or *Simocephalus* sp.); and

h. The results for a toxicity test for one other North American freshwater aquatic species (other than a planktonic crustacean).

I. LIMITATIONS AND MONITORING REQUIREMENTS

A. Discharge Authorization

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

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

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

Table 1: Effluent Limitations and Monitoring Requirements: **Outfall 001 & 002**

Parameter	Effluent Limitations			Monitoring Requirements	
	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit	Sample Frequency	Sample Type
Biological Oxygen Demand (BOD5), mg/l	30	45	*	1/Month	Grab
Total Suspended Solids (TSS), mg/l	*	*	90	2/Month	Grab
Dissolved Oxygen, mg/l	*	*	5 minimum [a]	2/Month	Grab
Total Sulfate, mg/l	*	*	*	2/Month [d]	Grab
Conductivity, umho/cm	*	*	*	2/Month [d]	Grab
pH	Shall remain between 7.0 to 9.0 s.u.			Continuous	Recorder
Total Residual Chlorine, mg/l	*	*	*	1/Week	Grab
Effluent Flow, mgd [c]	Report	*	Report Max. Daily Value	1/Day	Instantaneous
Total Drain, mgal	*	*	Report Monthly Total	1/Month	Calculated
Goose River Parameter(s)					
Goose River Flow, cfs [f]	*	*	*	1/Day	USGS Gage 05066500

Notes:

*. This parameter is not limited. However, the Department may impose limitations based on sample history and to protect the receiving waters.

a. Dissolved Oxygen limitation is 5 mg/l Daily Minimum.

Table 1: Effluent Limitations and Monitoring Requirements: **Outfall 001 & 002**
b. Any discharge to the Red River when the river flow is below 90 cfs at the Halstad, MN USGS gage station 05064500 shall be restricted. c. When the flow in the Red River at Halstad, MN is less than 90 cfs the sampling frequency shall be once per week. Stipulations: There shall be no discharge of floating solids or visible foam in other than trace amounts, nor a discharge which causes a visible sheen in the receiving waters. 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. The permitting authority must be notified, in advance, of any facility expansions, additions, or modifications to increase the amount of discharge in accordance with part III(C) "Planned Changes". The increase in any effluent limitation is considered a major permit modification. Major modifications require the issuance of a public notice inviting public comment.

II. MONITORING, RECORDING, AND REPORTING REQUIREMENTS BP 2017.08.21

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

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

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

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

B. Test Procedures

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

C. Recording of Results

Records of monitoring information shall include:

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

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

3. the name of the laboratory;

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

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

6. the analytical techniques or methods used; and

7. the results of such analyses.

D. Additional Monitoring

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

E. Reporting of Monitoring Results

1. Monitoring results shall be summarized and reported to the department using Discharge Monitoring Reports (DMRs). If no discharge occurs during a reporting period, "No Discharge" shall be reported. 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:

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

   b. Municipal separate storm sewer system program reports;

   c. Pretreatment program reports;

   d. Sewer overflow/bypass event reports; and

   e. Clean Water Act 316(b) annual reports

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

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

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

III. COMPLIANCE RESPONSIBILITIES

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

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

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

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

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

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

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

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

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

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

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

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

F. Twenty-four Hour Notice of Noncompliance Reporting

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

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

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

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

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

   a. A description of the noncompliance and its cause;

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

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

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

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

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

G. Bypass of Treatment Facilities

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

2. Bypass exceeding limitations-notification requirements.

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

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

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

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

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

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

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

H. Upset Conditions

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

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

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

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

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

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

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

I. Duty to Mitigate

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

J. Removed Materials

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

K. Duty to Reapply

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

IV. GENERAL PROVISIONS

A. Inspection and Entry

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

B. Availability of Reports

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

C. Transfers

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

D. New Limitations or Prohibitions

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

E. Permit Actions

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

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

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

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

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

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