

# State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code: <b>4952</b>	NAICS Code: 221320			SPDES Number:	NY0021423
Discharge Class (CL):	05			DEC Number:	7-0842-00061/00001
Toxic Class (TX):	Т			Effective Date (EDP):	
Major-Sub Drainage Basin:	06 - 02			Expiration Date (ExDP):	
Water Index Number:	SR-44	Item No.:	930 - 144	Madification Dates (EDDM):	
Compact Area:	SRBC			Modification Dates (EDPM):	-

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. '1251 et.seq.)

PERMITTEE NAME	AND ADDRESS								
Name:	City of Norwich	Attention:							
Street:	One City Plaza		Ed Pepe, Town Superintendent						
City:	Norwich	State:	NY	Zip Code:	13815				
Email:	edwardpepe@norwichnewyork.net	Phone:	(607) 3	34-1255					

is authorized to discharge from the facility described below:

FACILITY NAME, AD	ACILITY NAME, ADDRESS, AND PRIMARY OUTFALL																
Name:	City of	ty of Norwich Wastewater Treatment Plant															
Address / Location:	State R	Route 12 County: Chenango															
City:	Town o	own of Norwich						State:	NY	Zip Code		de:	: 13780				
Facility Location:		Latitude:		42	o	30	,	42	" N	& Longitude:	75	o		31	' 1	0.4 '	' W
Primary Outfall No.:	001	Latitude:		42	0	30	,	30	" N	& Longitude:	75	0		31	,	00 '	' W
Outfall Description:	Outfall Description:         Treated Sanitary         Receiving Water:         Chenango River         Class:         C																

in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1 and 750-2.

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

DISTRIBUTION: CO BWP - Permit Coordinator CO BWC - SCIS RWE	Permit Administrator:				
	Address:	625 Broadway Albany, NY 12233-1750			
RPA EPA Region II NYSEFC	Signature:		Date:	/ /	

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# DEFINITIONS FOR PERMIT LIMITS, LEVELS AND MONITORING TERMS

TERM	DEFINITION
7-Day Geo Mean	The highest allowable geometric mean of daily discharges over a calendar week.
7-Day Average	The average of all daily discharges for each 7-days in the monitoring period. The sample measurement is the highest of the 7-day averages calculated for the monitoring period.
12-Month Rolling Average (12 MRA)	The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by 12.
30-Day Geometric Mean	The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Action Level	Action level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee actions and department review to determine if numerical effluent limitations should be imposed.
Compliance Level / Minimum Level	A compliance level is an effluent limitation. A compliance level is given when the water quality evaluation specifies a Water Quality Based Effluent Limit (WQBEL) below the Minimum Level. The compliance level shall be set at the Minimum Level (ML) for the most sensitive analytical method as given in 40 CFR Part 136, or otherwise accepted by the Department.
Daily Discharge	The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants 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.
Daily Maximum	The highest allowable Daily Discharge.
Daily Minimum	The lowest allowable Daily Discharge.
Effective Date of Permit (EDP or EDPM)	The date this permit is in effect.
Effluent Limitations	Effluent limitation means any restriction on quantities, quality, rates and concentrations of chemical, physical, biological, and other constituents of effluents that are discharged into waters of the state.
Expiration Date of Permit (ExDP)	The date this permit is no longer in effect.
Instantaneous Maximum	The maximum level that may not be exceeded at any instant in time.
Instantaneous Minimum	The minimum level that must be maintained at all instants in time.
Monthly Average	The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Outfall	The terminus of a sewer system, or the point of emergence of any waterborne sewage, industrial waste or other wastes or the effluent therefrom, into the waters of the State.
Range	The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.
Receiving Water	The classified waters of the state to which the listed outfall discharges.

# PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	L	MITATIONS APPL	Y		RECE	IVING W	ATER	EFFECTIVE EXPIRING		G	
001	Yea	ar Round (or as not	ed)		Che	nango R	iver	EDP	E	xDP	<b>r</b>
		EFF	LUENT	LIMITA	TION		MONITO	RING REQUIRI	EMEN	TS	
PARAME	IER	Туре	Limit Units		Limit	Units	Sample Frequency	Sample Type	Loc	ation Eff.	FN
Flow (May 1 to October 31)		Monthly Average	2.2	MGD			Continuous	Recorder	x		
Flow (Nov 1 to April 30)	)	Monthly Average	2.5	MGD			Continuous	Recorder	х		
		Daily Minimum	6.0	SU			2/day	Grab	Х	Х	
рН		Daily Maximum	9.0	SU			2/day	Grab	X	х	
Temperature		Daily Maximum	Monitor	°C			2/day	Grab		х	
CBOD₅		Monthly Average	25	mg/L	460	lbs/d	1/week	24-hr. Comp.	Х	Х	(1)
(May 1 to Octobe	r 31)	7-Day Average	40	mg/L	670	lbs/d	1/week	24-hr. Comp.	Х	Х	
UOD (May 1 to Octobe	r 31)	Monthly Average	Monitor	mg/L	770	lbs/d	1/week	24-hr. Comp.		x	(2)
BOD₅		Monthly Average	30	mg/L	630	lbs/d	1/week	24-hr. Comp.	Х	х	(1)
(Nov 1 to April 30)	)	7-Day Average	45	mg/L	940	lbs/d	1/week	24-hr. Comp.	Х	Х	
Total Suspended	Solids (TSS)	Monthly Average	30	mg/L	550	lbs/d	1/week	24-hr. Comp.	Х	х	(1)
(May 1 to Octobe	r 31)	7-Day Average	45	mg/L	830	lbs/d	1/week	24-hr. Comp.	Х	х	
Total Suspended	Solids (TSS)	Monthly Average	30	mg/L	630	lbs/d	1/week	24-hr. Comp.	Х	Х	(1)
(Nov 1 to April 30)	)	7-Day Average	45	mg/L	940	lbs/d	1/week	24-hr. Comp.	Х	Х	
Settleable Solids		Daily Maximum	0.3	mL/L			2/day	Grab		х	
Ammonia (as N) (June 1 to Octobe	er 31)	Monthly Average	10	mg/L			1/week	24-hr. Comp.		x	(3)
Ammonia (as N) (Nov 1 to May 31)		Monthly Average	Monitor	mg/L			1/week	24-hr. Comp.		x	
Dissolved Oxyger (May 1 to October		Daily Minimum	6.0	mg/L			1/week	Grab		x	
Mercury		Daily Maximum	50	ng/L			Quarterly	Grab		х	(4)
Nitrite <b>(</b> NO <sub>2</sub> ) (as N	1)	Monthly Average	Monitor	mg/L		lbs/d	1/week	24-hr. Comp.		х	
Nitrate (NO <sub>3</sub> ) (as	N)	Monthly Average	Monitor	mg/L		lbs/d	1/week	24-hr. Comp.		Х	
Total Kjeldahl Nitr (TKN) (as N)	ogen	Monthly Average	Monitor	mg/L		lbs/d	1/week	24-hr. Comp.		x	

	1	r								002 je 5
	Monthly Average	Monitor	mg/L	Monitor	lbs/d	1/week	24-hr. Comp.			(5)
Total Nitrogen (as N)	Monthly Total			Monitor	lbs/m	1/month	24-hr. Comp.			(6)
· • • • • • • • • • • • • • • • • • • •	12 Month Rolling Total			177,000	lbs/yr	1/month	24-hr. Comp.		х	(7)
	Monthly Average	1.0	mg/L	Monitor	lbs/d	1/week	24-hr. Comp.		х	(3)
Total Phosphorus (as P)	Monthly Total			Monitor	lbs/m	1/month	24-hr. Comp.		х	(6)
	12 Month Rolling Total			3,610	lbs/yr	1/month	24-hr. Comp.		х	(3) (7)
Biennial Pollutant Scan						1/2-years	24-hr. Comp.		Х	(8)
EFFLUENT DISINFECTION (May 1 to October 31)		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Coliform, Fecal	30-Day Geometric Mean	200	No./ 100 mL			1/week	Grab		x	
Coliform, Fecal	7-Day Geometric Mean	400	No./ 100 mL			1/week	Grab		х	
Chlorine, Total Residual	Daily Maximum	0.5	mg/L			2/day	Grab		Х	
WHOLE EFFLUENT TOXICITY (WET) (May 1 to October 31)		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote			3.3	TUa	Quarterly	See footnote		х	(4) (9)
WET - Acute Vertebrate	See footnote			3.3	TUa	Quarterly	See footnote		x	(4) (9)
WET - Chronic Invertebrate	See footnote			12	TUc	Quarterly	See footnote		х	(4) (9)
WET - Chronic Vertebrate	See footnote			12	TUc	Quarterly	See footnote		х	(4) (9)
WHOLE EFFLUENT TOX (Nov 1 to April)	· · · ·	Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote			5.7	TUa	Quarterly	See footnote		х	(4) (9)
WET - Acute Vertebrate	See footnote			5.7	TUa	Quarterly	See footnote		х	(4) (9)
WET - Chronic Invertebrate	See footnote			24	TUc	Quarterly	See footnote		x	(4) (9)
WET - Chronic Vertebrate	See footnote			24	TUc	Quarterly	See footnote		х	(4) (9)

#### Footnotes:

1. Effluent shall not exceed 15% and 15% of influent concentration values for  $BOD_5 \& TSS$  respectively.

2. Ultimate Oxygen Demand (UOD) shall be computed as follows:  $UOD = (1.5 \times CBOD_5) + (4.5 \times TKN)$ .

3. This is a final effluent limitation. See Schedule of Compliance for any applicable interim effluent limitations.

Quarterly samples shall be reported as calendar quarters (Q1 – January 1<sup>st</sup> to March 31<sup>st</sup>; Q2 – April 1<sup>st</sup> to June 30<sup>th</sup>; Q3 – July 1<sup>st</sup> to September 30<sup>th</sup>; Q4 – October 1<sup>st</sup> to December 31<sup>st</sup>).

- 5. Total Nitrogen (as N) = [Total Kjeldahl Nitrogen (TKN), as N] + [Nitrite (NO<sub>2</sub>), as N] + [Nitrate (NO<sub>3</sub>), as N].
- 6. Monthly total (lbs/month) is calculated as the monthly average load (lbs/d) multiplied by the number of days in the month
- 7. 12-month rolling total (lbs/year) is calculated as the current month load added to the month loads from the previous eleven months.
- 8. Biennial Pollutant Scan: The permittee shall perform effluent sampling every two (2) years for all pollutants identified in the NY-2A Application, Tables A D. Sampling data shall be collected and maintained by the permittee. Monitoring results shall not be submitted on the DMR. Data shall be submitted with the next submission of the NY-2A form.

#### 9. Whole Effluent Toxicity (WET) Testing:

<u>Testing Requirements</u> – Chronic WET testing is required, but report both the acute and chronic results. Testing shall be performed in accordance with 40 CFR Part 136 and TOGS 1.3.2 unless prior written approval has been obtained from the Department. The test species shall be Ceriodaphnia dubia (water flea - invertebrate) and Pimephales promelas (fathead minnow - vertebrate). Receiving water collected upstream from the discharge should be used for dilution. All tests conducted should be static-renewal (two 24-hr composite samples with one renewal for Acute tests and three 24-hr composite samples with two renewals for Chronic tests). The appropriate dilution series should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test may be required. WET testing shall be coordinated with the monitoring of chemical and physical parameters limited by this permit so that the resulting analyses are also representative of the sample used for WET testing. The ratio of critical receiving water flow to discharge flow for winter (i.e. dilution ratio) is 7.7:1 for acute, and 15.4:1 for chronic. The ratio of critical receiving water flow to discharge flow for summer (i.e. dilution ratio) is 4.6:1 for acute, and 9.2:1 for chronic Discharges which are disinfected using chlorine should be dechlorinated prior to WET testing or samples shall be taken immediately prior to the chlorination system.

<u>Monitoring Period</u> - WET testing shall be performed quarterly (calendar quarters) during calendar years ending in 0 and 5.

<u>Reporting</u> - Toxicity Units shall be calculated and reported on the DMR as follows: TUa = (100)/(48-hr LC50) [note that Acute data is generated by both Acute and Chronic testing] and TUc = (100)/(7-day NOEC) or (100)/(7-day IC25) when Chronic testing has been performed or  $TUc = (TUa) \times (10)$  when only Acute testing has been performed and is used to predict Chronic test results, where the 48-hr LC50, 7-day NOEC and/or IC25 are all expressed in % effluent. This must be done, including the Chronic prediction from the Acute data, for both species unless otherwise directed. For Chronic results, report the most sensitive endpoint (i.e. survival, growth and/or reproduction) corresponding to the lowest 7-day NOEC or IC25 and resulting highest TUc. For Acute results, report a TUa of 0.3 if there is no statistically significant mortality in 100% effluent as compared to the control. Report a TUa of 1.0 if there is statistically significant mortality in 100% effluent as compared to the control, but insufficient mortality to generate a 48-hr LC50. Also, in the absence of a 48-hr LC50, use 1.0 TUa for the Chronic prediction from the Acute data, and report a TUc of 10.0.

The complete test report including all bench sheets, statistical analyses, reference toxicity data, daily average flow at the time of sampling and other appropriate supporting documentation, shall be submitted within 60 days following the end of each test period with your WET DMR and to the <u>WET@dec.ny.gov</u> email address. A summary page of the test results for the invertebrate and vertebrate species indicating TUa, 48-hr LC50 for Acute tests and/or TUc, NOEC, IC25, and most sensitive endpoints for Chronic tests, should also be included at the beginning of the test report.

<u>WET Testing Action Level Exceedances</u> - If an action level is exceeded then the Department may require the permittee to conduct additional WET testing including Acute and/or Chronic tests. Additionally, the permittee may be required to perform a Toxicity Identification/Reduction Evaluation (TI/RE) in accordance with Department guidance. Enforceable WET limits may also apply. The permittee shall be notified in writing by their Regional DEC office of additional requirements. The written notification shall include the reason(s) why such testing, TI/RE and/or limits are required.

## STORMWATER POLLUTION PREVENTION REQUIREMENTS

#### NO EXPOSURE CERTIFICATION

The permittee submitted a Conditional Exclusion for No Exposure Form on 9/29/2020, certifying that all industrial activities and materials are completely sheltered from exposure to rain, snow, snowmelt, and/or stormwater runoff. The permittee must maintain a condition of no exposure for the exclusion to remain applicable. If conditions change resulting in the exposure of materials and activities to stormwater, the permittee must notify the Regional Water Engineer. The permittee must recertify a condition of no exposure every five years by completing the "No Exposure Certification Form" found on the NYSDEC website.

# MERCURY MINIMIZATION PROGRAM (MMP) - Type I

- 1. <u>General</u> The permittee must develop, implement, and maintain a mercury minimization program (MMP), containing the elements set forth below, to reduce mercury effluent levels with the goal of achieving the WQBEL of 0.7 ng/L.
- <u>MMP Elements</u> The MMP must be a written document and must include any necessary drawings or maps of the facility and/or collection system. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. At a minimum, the MMP must include the following elements as described in detail below:
  - a. <u>Monitoring</u> Monitoring at outfall, influent and other locations tributary to compliance points may be performed using either USEPA Method 1631 or another sufficiently sensitive method, as approved under 40 CFR Part 136<sup>1</sup>. Monitoring of raw materials, equipment, treatment residuals, and other non-wastewater/non-stormwater substances may be performed using other methods as appropriate. Monitoring must be coordinated so that the results can be effectively compared between locations.

Minimum required monitoring is as follows:

- i. <u>Sewage Treatment Plant Influent and/or Effluent</u> The permittee must collect samples at the location(s) and frequency as specified in the SPDES permit limitations table.
- ii. <u>Key Locations and Potential Mercury Sources</u> The permittee must sample *key locations*, chosen to identify *potential mercury sources*, at least semi-annually. Sampling of discharges from dental facilities in compliance with 6 NYCRR 374.4 is not required.
- iii. <u>Hauled Wastes</u> The permittee must establish procedures for the acceptance of hauled waste to ensure the hauled waste is not a potential mercury source. Loads which may exceed 500 ng/L,<sup>2</sup> must receive approval from the Department prior to acceptance.
- iv. <u>Decreased Monitoring Requirements</u> Facilities with EEQ at or below 12 ng/L are eligible for the following:
  - 1) Reduced requirements, through a permittee-initiated permit modification
    - a) Conduct influent monitoring, sampling quarterly, in lieu of monitoring within the collection system, such as at *key locations*; and
    - b) Conduct effluent compliance sampling quarterly.
  - 2) If a facility with reduced requirements reports discharges above 12 ng/L for two of four consecutive effluent samples, the Department may undertake a Department-initiated modification to remove the allowance of reduced requirements.
  - 3) Under the decreased permit requirements, the facility must continue to conduct a status report, as applicable in accordance with 2.c of this MMP, to determine if any waste streams have changed.

<sup>&</sup>lt;sup>1</sup> Outfall monitoring must be conducted using the methods specified in Table 8 of *DOW 1.3.10*.

<sup>&</sup>lt;sup>2</sup>A level of 0.2 mg/L (200,000 ng/L) or more is considered hazardous per 40 CFR Part 261.11. 500 ng/L is used here to alert the permittee that there is an unusual concentration of mercury and that it will need to be managed appropriately.

# MERCURY MINIMIZATION PROGRAM (MMP) - Type I (Continued)

- v. Additional monitoring must be completed as required elsewhere in this permit (e.g., locations tributary to compliance points).
- b. <u>Control Strategy</u> The control strategy must contain the following minimum elements:
  - i. <u>Pretreatment/Sewer Use Law</u> The permittee must review pretreatment program requirements and the Sewer Use Law (SUL) to ensure it is up-to-date and enforceable with applicable permit requirements and will support efforts to achieve a dissolved mercury concentration of 0.70 ng/L in the effluent.
  - ii. Monitoring and Inventory/Inspections -
    - 1) Monitoring shall be performed as described in 2.a above. As mercury sources are found, the permittee must enforce its sewer use law to track down and minimize these sources.
    - 2) The permittee must inventory and/or inspect users of its system as necessary to support the MMP.
      - a) Dental Facilities
        - 1. The permittee must maintain an inventory of each dental facility.
        - 2. The permittee must inspect each dental facility at least once every five years to verify compliance with the wastewater treatment operation, maintenance, and notification elements of 6 NYCRR 374.4. Alternatively, the permittee may develop and implement an outreach program,<sup>3</sup> which informs users of their responsibilities, and collect the "Amalgam Waste Compliance Report for Dental Dischargers"<sup>4</sup> form, as needed, to satisfy the inspection requirements. The permittee must conduct the outreach program at least once every five years and ensure the "Amalgam Waste Compliance Report for Dental Dischargers" are submitted by new users, as necessary. The outreach program could be supported by a subset of site inspections.
        - 3. A file shall be maintained containing documentation demonstrating compliance with 2.b.ii.2)a) above. This file shall be available for review by the Department representatives and copies shall be provided upon request.
      - b) Other potential mercury sources
        - 1. The permittee must maintain an inventory of other potential mercury sources.
        - 2. The permittee must inspect other *potential mercury sources* once every five years. Alternatively, the permittee may develop and implement an outreach program which informs users of their responsibilities as *potential mercury sources*. The permittee must conduct the outreach program at least once every five years. The outreach program should be supported by a subset of site inspections.
        - 3. A file shall be maintained containing documentation demonstrating compliance with 2.b.ii.2)b) above. This file shall be available for review by the Department representatives and copies shall be provided upon request.
  - iii. <u>Systems with CSO & Type II SSO Outfalls</u> Permittees must prioritize *potential mercury sources* upstream of CSOs and Type II SSOs for mercury reduction activities and/or controlled-release discharge.
  - iv. Equipment and Materials Equipment and materials (e.g., thermometers, thermostats) used by

<sup>&</sup>lt;sup>3</sup> For example, the outreach program could include education about sources of mercury and what to do if a mercury source is found. <sup>4</sup> The form, "Amalgam Waste Compliance Report for Dental Dischargers," can be found here:

https://www.dec.ny.gov/docs/water\_pdf/dentalform.pdf

the permittee, which may contain mercury, must be evaluated by the permittee. As equipment and materials containing mercury are updated/replaced, the permittee must use mercury-free alternatives, if possible.

- v. <u>Bulk Chemical Evaluation</u> For chemicals, used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee must obtain a manufacturer's certificate of analysis, a chemical analysis performed by a certified laboratory, and/or a notarized affidavit which describes the substances' mercury concentration and the detection limit achieved. If possible, the permittee must only use bulk chemicals utilized in the wastewater treatment process which contain <10 ppb mercury.</p>
- c. Status Report An annual status report must be completed and maintained on site summarizing:
  - i. All MMP monitoring results for the previous reporting period;
  - ii. A list of known and potential mercury sources
    - 1) If the permittee meets the criteria for MMP Type IV, the permittee must notify the Department for a permittee-initiated modification;
  - iii. All actions undertaken, pursuant to the control strategy, during the previous reporting period;
  - iv. Actions planned, pursuant to the control strategy, for the upcoming reporting period; and
  - v. Progress towards achieving a dissolved mercury concentration of 0.70 ng/L in the effluent (e.g., summarizing reductions in effluent concentrations as a result of the control strategy implementation and/or installation/modification of a treatment system).

The first status report is required to be completed in accordance with the <u>Schedule of Additional</u> <u>Submittals</u>. The permittee must maintain a file with all MMP documentation. The file must be available for review by Department representatives and copies must be provided upon request in accordance with 6 NYCRR 750-2.1(i) and 750-2.5(c)(4).

- 3. <u>MMP Modification</u> The MMP must be modified whenever:
  - a. Changes at the facility, or within the collection system, increase the potential for mercury discharges.
  - b. Effluent discharges exceed the current permit limitation(s); or
  - c. A letter from the Department identifies inadequacies in the MMP.

The Department may use information in the status reports, as applicable in accordance with 2.c of this MMP, to determine if the permit limitations and MMP Type is appropriate for the facility.

#### **DEFINITIONS:**

Key location – a location within the collection/wastewater system (e.g. including but not limited to a specific manhole/access point, tributary sewer/wastewater connection, or user discharge point) identified by the permittee as a potential mercury source. The permittee may adjust key locations based upon sampling and/or best professional judgement.

Potential mercury source – a source identified by the permittee that may reasonably be expected to have total mercury contained in the discharge. Some potential mercury sources include switches, fluorescent lightbulbs, cleaners, degreasers, thermometers, batteries, hauled wastes, universities, hospitals, laboratories, landfills, Brownfield sites, or raw material storage.

## DISCHARGE NOTIFICATION REQUIREMENTS

- (a) The permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit, unless the Permittee has obtained a waiver in accordance with the Discharge Notification Act (DNA). Such signs shall be installed before initiation of any discharge.
- (b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.
- (c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.
- (d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have **minimum** dimensions of eighteen inches by twenty-four inches (18" x 24") and shall have white letters on a green background and contain the following information:

N.Y.S. PERMITTED DISCHARGE POINT											
SPDES PERMIT No.: NY											
OUTFALL No. :											
For information about this permitted discharge contact:											
Permittee Name:											
Permittee Contact:											
Permittee Phone: ( ) - ### - ####											
OR:											
NYSDEC Division of Water Regional Office Address:											
NYSDEC Division of Water Regional Phone: ( ) - ### - ####											

- (e) Upon request, the permittee shall make available electronic or hard copies of the sampling data to the public. In accordance with the RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS page of your permit, each DMR shall be maintained (either electronically or as a hard copy) on record for a period of five years.
- (f) The permittee shall periodically inspect the outfall identification sign(s) in order to ensure they are maintained, are still visible, and contain information that is current and factually correct. Signs that are damaged or incorrect shall be replaced within 3 months of inspection.

# MINI INDUSTRIAL PRETREATMENT PROGRAM

The permittee previously performed the actions described in items 1 through 4 below in order to develop a mini pretreatment program:

1. Industrial Survey

The permittee submitted the results of an industrial survey for following industrial facilities: The Chenango County Landfill and Golden Artist Colors.

2. <u>Develop Procedures</u>

The permittee submitted documentation of procedures for obtaining and ensuring compliance with applicable standards. Such procedures include requirements and schedules for discharge permits, industrial self-monitoring, compliance monitoring of industries by the permittee, on-going POTW monitoring, and an enforcement program. Such procedures are equivalent to procedures described or referenced in the document entitled Introduction to the National Pretreatment Program, USEPA, June, 2011,

(https://www.epa.gov/npdes/pubs/pretreatment\_program\_intro\_2011.pdf).

3. Treatment Plant/Industry Monitoring

The permittee submitted the results of industrial and POTW monitoring and a completed Fast Report On Significant Industries forms (FROSIs) for all significant industrial users (SIUs).

4. Local Sewer Use Law

The permittee submitted a draft local sewer use law equivalent to the <u>DEC Model Sewer Use Law, NYSDEC,</u> <u>1994</u>. Local limits for substance capable of causing SPDES permit violations, endangering municipal employees or limiting sludge disposal options were included in the local law. Such limits were developed in accordance with document entitled <u>Local Limits Development Guidance, US EPA, July 2004, EPA 833-R-04-002A</u> (<u>https://www.epa.gov/npdes/pubs/pretreatment\_local\_limits.pdf.</u> Within 6 months from the effective date of the permit (EDP), Permittee shall submit a copy of the most recent Local Sewer Use Law that has been enacted by their City/Town/Municipal council.

Therefore, the permittee shall continue to implement the procedures developed in accordance with 2. above and approved by the Department. At a minimum, the following activities shall continue to be undertaken by the permittee:

- 1. Issue permits including limitations, monitoring requirements, and reporting requirements to its significant industrial users.
- 2. Enforce the local limits set forth in the POTW local sewer use law.
- 3. Carry out inspections and monitoring of significant industrial users to determine compliance with categorical standards and local limits.
- 4. Undertake enforcement actions in accordance with Department approved procedures.

In accordance with the Schedule of Submittals, the permittee shall submit yearly Fast Report On Significant Industries forms (FROSIs) for each SIU to the Department. Every third year, on the same date, the permittee shall submit Industrial Chemical Survey forms completed by all SIUs to the Department. At the same time the permittee shall notify the Department of any proposed significant changes to its implementing procedures or local sewer use law.

# SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall - 001	Compliance Action	Due Date
Ammonia (as N)	The permittee shall evaluate its existing treatment plant and perform necessary upgrades and tune up to its wastewater treatment plant such that the treatment plant can treat ammonia complying with final effluent limitation for ammonia in the permit.	EDP + 18 Months
Total Phosphorus	PHOSPHORUS CONCENTRATION EFFLUENT LIMITATION The Total Phosphorus monthly average effluent concentration limit of 1.0 mg/L will become effective EDP + 18 months. This requirement will be monitor only until the limit takes effect.	EDP + 18 Months
Total Phosphorus	(a) The permittee shall submit an approvable engineering report, prepared by a Professional Engineer licensed to practice engineering in New York State, detailing the Phosphorus removal improvements that will be implemented to achieve compliance with final effluent limits of this permit. The engineering report shall meet the requirements of most recent version of the EFC/DEC Engineering Report Outline available at https://www.dec.ny.gov/permits/6054.html. In addition, the engineering report shall include an implementation schedule for the design and of construction of the improvements at the plant (as necessary) to treat phosphorus to achieve final effluent limits of this permit.	EDP + 12 months
	<ul> <li>(b) Upon Department approval of Engineering Report and Implementation Schedule, the permittee shall complete construction and commence operation of the upgraded plant and comply with the final effluent limitations for Total Phosphorus.</li> <li>Note: the permittee submitted an Engineering report for Phosphorus removal on June 22, 2022, as required by above item (a). The report is currently under the Department's review.</li> </ul>	12/31/2024

permit stated in the "SPDES NOTICE/RENEWAL APPLICATION/PERMIT" letter.

		INTE	RIM EFI	MONITORI							
OUTFALL	PARAMETER	Туре	Limit	Units	Limit	Units	Sample Frequency	Sample	Loca Inf.		Notes
001	Ammonia (as N)	Monthly Average	Monitor	mg/L	Monitor	lbs/d	1/Month	Calculated		х	1

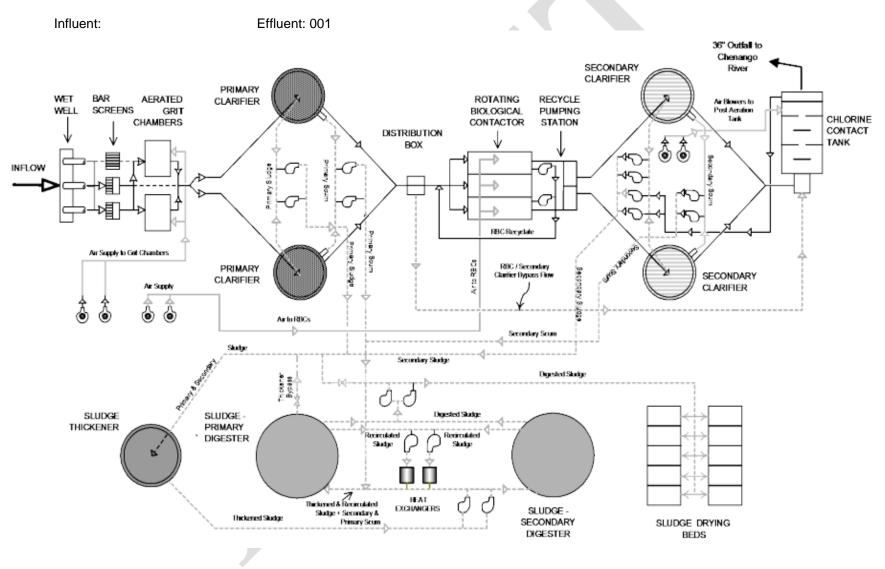
SPDES Number: NY0021423

										Page	e 14 of 2		
001	Total Phosphorus	Monthly Average	Monitor	mg/L	Monitor	lbs/d	1/Month	Calculated	-	х	1		
001	Total Phosphorus	12-Month Total	Monitor	mg/L	7300	lbs/yr	1/Month	Calculated	-	х	2,3		
Notes:	1. Interim limits expire EDP + 18 months.												

- a) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of <u>non-compliance</u> shall include the following information:
  - 1. A short description of the non-compliance;
  - 2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
  - 3. Any details which tend to explain or mitigate an instance of non-compliance; and
  - 4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.
- b) The permittee shall submit copies of any document required by the above schedule of compliance to the NYSDEC Regional Water Engineer and to the Bureau of Water Permits.

# MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the locations(s) specified below:



# **GENERAL REQUIREMENTS**

A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through I as follows:

#### B. General Conditions

- 1. Duty to comply
- 2. Duty to reapply
- 3. Need to halt or reduce activity not a defense
- 4. Duty to mitigate
- 5. Permit actions
- 6. Property rights
- 7. Duty to provide information
- 8. Inspection and entry
- C. Operation and Maintenance
  - 1. Proper Operation & Maintenance
  - 2. Bypass
  - 3. Upset
- D. Monitoring and Records
  - 1. Monitoring and records
  - 2. Signatory requirements
- E. Reporting Requirements
  - 1. Reporting requirements
  - 2. Anticipated noncompliance
  - 3. Transfers
  - 4. Monitoring reports
  - 5. Compliance schedules
  - 6. 24-hour reporting
  - 7. Other noncompliance
  - 8. Other information
  - 9. Additional conditions applicable to a POTW
- F. Planned Changes
  - 1. The permittee shall give notice to the Department as soon as possible of planned physical alterations or additions to the permitted facility when:
    - a. The alteration or addition to the permitted facility may meet any of the criteria for determining whether facility is a new source in 40 CFR §122.29(b); or
    - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject either to effluent limitations in the permit, or to notification requirements under 40 CFR §122.42(a)(1); or
    - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

In addition to the Department, the permittee shall submit a copy of this notice to the United States Environmental Protection Agency at the following address: U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866.

6 NYCRR 750-2.1(e) & 2.4 6 NYCRR 750-1.16(a) 6 NYCRR 750-2.1(g) 6 NYCRR 750-2.7(f) 6 NYCRR 750-1.1(c), 1.18, 1.20 & 2.1(h) 6 NYCRR 750-2.2(b) 6 NYCRR 750-2.1(i) 6 NYCRR 750-2.1(a) & 2.3

6 NYCRR 750-2.8 6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7 6 NYCRR 750-1.2(a)(94) & 2.8(c)

6 NYCRR 750-2.5(a)(2), 2.5(a)(6), 2.5(c)(1), 2.5(c)(2), & 2.5(d) 6 NYCRR 750-1.8 & 2.5(b)

6	NYCRR	750-2.5, 2.7 & 1.17
6	NYCRR	750-2.7(a)
6	NYCRR	750-1.17
6	NYCRR	750-2.5(e)
6	NYCRR	750-1.14(d)
6	NYCRR	750-2.7(c) & (d)
6	NYCRR	750-2.7(e)
6	NYCRR	750-2.1(f)
6	NYCRR	750-2.9

# GENERAL REQUIREMENTS (continued)

- 2. Notification Requirement for POTWs All POTWs shall provide adequate notice to the Department and the USEPA of the following:
  - a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; or
  - b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
  - c. For the purposes of this paragraph, adequate notice shall include information on:
    - i. the quality and quantity of effluent introduced into the POTW, and
    - ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

POTWs shall submit a copy of this notice to the United States Environmental Protection Agency, at the following address:

U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866

G. Sludge Management

The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.

H. SPDES Permit Program Fee

The permittee shall pay to the Department an annual SPDES permit program fee within 30 days of the date of the first invoice, unless otherwise directed by the Department, and shall comply with all applicable requirements of ECL 72-0602 and 6 NYCRR Parts 480, 481 and 485. Note that if there is inconsistency between the fees specified in ECL 72-0602 and 6 NYCRR Part 485, the ECL 72-0602 fees govern.

I. Water Treatment Chemicals (WTCs)

New or increased use and discharge of a WTC requires prior Department review and authorization. At a minimum, the permittee must notify the Department in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The Department will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. The majority of WTC authorizations do not require SPDES permit modification. In any event, use and discharge of a WTC shall not proceed without prior authorization from the Department. Examples of WTCs include biocides, coagulants, conditioners, corrosion inhibitors, defoamers, deposit control agents, flocculants, scale inhibitors, sequestrants, and settling aids.

- 1. WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized in writing by the Department.
- 2. The permittee shall maintain a logbook of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used.
- 3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be submitted in electronic format and attached to either the December DMR or the annual monitoring report required below. The WTC Notification Form and WTC Annual Report Form are available from the Department's website at: <a href="http://www.dec.ny.gov/permits/93245.html">http://www.dec.ny.gov/permits/93245.html</a>

# RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- A. The monitoring information required by this permit shall be retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent.
- B. <u>Discharge Monitoring Reports (DMRs)</u>: Completed DMR forms shall be submitted for each 1 month reporting period in accordance with the DMR Manual available on Department's website.

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by NYSDEC. Instructions on the use of NetDMR can be found at <u>https://www.dec.ny.gov/chemical/103774.html</u>. Hardcopy paper DMRs will only be received at the address listed below for the Bureau of Water Permits, if a waiver from the electronic submittal requirements has been granted by DEC to the facility.

Attach the monthly "Wastewater Facility Operation Report" (form 92-15-7) and any required DMR attachments electronically to the DMR or with the hardcopy submittal.

The first monitoring period begins on the effective date of this permit, and, unless otherwise required, the reports are due no later than the 28th day of the month following the end of each monitoring period.

C. Additional information required to be submitted by this permit shall be summarized and reported to the RWE and Bureau of Water Permits at the following addresses:

Department of Environmental Conservation Division of Water, Bureau of Water Permits 625 Broadway, Albany, New York 12233-3505

Phone: (518) 402-8111

Department of Environmental Conservation Regional Water Engineer, Region 07 615 Erie Boulevard West, Syracuse, New York, 13204-2400 Phone: (315) 426-7500

D. <u>Bypass and Sewage Pollutant Right to Know Reporting</u>: In accordance with the Sewage Pollutant Right to Know Act (ECL § 17-0826-a), Publicly Owned Treatment Works (POTWs) are required to notify DEC and Department of Health within two hours of discovery of an untreated or partially treated sewage discharge and to notify the public and adjoining municipalities within four hours of discovery. Information regarding reporting and other requirements of this program may be found on the Department's website. In addition, POTWs are required to provide a five-day incident report and supplemental information to the DEC in accordance with Part 750-2.7(d) by utilizing the Division of Water Report of Noncompliance Event form unless waived by DEC on a case-by-case basis.

#### E. <u>Schedule of Additional Submittals:</u>

The permittee shall submit as a hardcopy the following information to the Regional Water Engineer and to the Bureau of Water Permits, unless otherwise instructed:

	SCHEDULE OF ADDITIONAL SUBMITTALS					
Outfall(s) Required Action						
001	BIENNIAL POLLUTANT SCAN The permittee shall implement an ongoing monitoring program and perform effluent sampling every two years as specified in Footnote 5.	Retain and submit with next NY-2A Application				

SCHEDULE OF ADDITIONAL SUBMITTALS				
Outfall(s)	Required Action	Due Date		
001	STORMWATER NO EXPOSURE CERTIFICATION Permittee must recertify every five years a condition of no exposure to stormwater in order to continue to qualify for the no exposure exclusion. The No Exposure Certification Form can be found on the NYSDEC website.	January 28, 2025, and every 5 years thereafter		
001	MERCURY MINIMIZATION PLAN The permittee must complete and maintain onsite an annual mercury minimization status report in accordance with the requirements of this permit.	Each Year by January 28th - Maintained Onsite		
001	MINI INDUSTRIAL PRETREATMENT PROGRAM Submit a report that briefly describes the permittee's program activities over the previous year. The report shall follow the guidelines contained in this permit and be submitted to the Regional Water Engineer and the Bureau of Water permits as well as the USEPA Region II office.	Each Year on January 28th		
001	MINI INDUSTRIAL PRETREATMENT PROGRAM - FROSI Submit completed Fast Report on Significant Industries forms (FROSIs) for each SIU to the Department, or notification letter that no new significant industrial users have been added.	Each Year on January 28 <sup>th</sup>		
001	MINI INDUSTRIAL PRETREATMENT PROGRAM – Industrial Chemical Survey (ICS) Forms Submit Industrial Chemical Survey forms completed by all SIUs to the Department. Notify the Department of any proposed significant changes to its implementing procedures or local sewer use law.	January 28, 2023 and every three years thereafter		
001	WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR.	December DMR (January 28 <sup>th</sup> Each Year)		
001	WHOLE EFFLUENT TOXICITY (WET) TESTING WET testing shall be performed on a chronic basis, but both acute and chronic results shall be reported. Monitoring shall occur quarterly for a period of one year, on years ending in 0 and 5. The toxicity test report including all information requested of this permit shall be attached to your monthly DMRs.	Within 60 days following the end of each monitoring period		
001	INFILTRATION & INFLOW REPORTING The permittee shall submit annual progress reports documenting its efforts to remove all I/I to the maximum extent practical during the previous calendar year.	Each Year on January 28th		

Unless noted otherwise, the above actions are one-time requirements. The permittee shall submit the results of the above actions to the satisfaction of the Department. When this permit is administratively renewed by NYSDEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION/PERMIT", the permittee is not required to repeat the above submittal(s), unless noted otherwise. The above due dates are independent from the effective date of the permit stated in the letter of "SPDES NOTICE/RENEWAL APPLICATION/PERMIT."

F. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

- G. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.
- H. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- I. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- J. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

Date: November 23, 2022 Permit Writer: Rashid Ahmed Water Quality Reviewer: Rashid Ahmed Full Technical Review

# SPDES Permit Fact Sheet City of Norwich Norwich (C) Wastewater Treatment Plant NY0021423



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Permittee: City of Norwich
Facility: Norwich (C) Wastewater Treatment Plant
SPDES Number: NY0021423
USEPA Major/Class 05 Municipal

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## Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) permit renewal has been drafted for the Norwich (C) Wastewater Treatment Plant . The following is a summary of the changes. The details of these changes are specified below and in the permit:

Added

- Summer ammonia effluent limit of 10 mg/L as N
- Mercury daily maximum limit of 50 ng/L
- Phosphorus concentration limit of 1.0 mg/L

Updated

- Total residual chlorine sampling frequency
- Mercury Minimization Plan (MMP) to conform with the current Mercury TOGS, DOW 1.3.10.
- Chesapeake Bay TMDL limitations and incorporated existing requirements for total nitrogen, TKN, nitrate, nitrite, and total phosphorus to the permit limits table
- Whole Effluent Toxicity action levels
- WIN
- Settleable solids to a year-round limit
- Compliance schedule
- Permittee contact information
- As per Part 750-2.5(e)(2), loading limitations for UOD, CBOD and TSS have been rounded to two significant figures.

Removed

- Previous format of Chesapeake Bay TMDL Implementation tables
- Alkalinity monitoring has been removed since it is not a pollutant of concern

This factsheet summarizes the information used to determine the effluent limitations and other conditions contained in the permit. General background information about the regulatory basis for the effluent limitations and other conditions contained in this permit are in the <u>Appendix</u> linked throughout this factsheet.

## Administrative History

1/1/2011 The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 12/31/2015. This permit, along with all subsequent modifications, if any as listed below, has formed the basis of this permit.

The permit was administratively renewed in 2015 with an effective date and expiration date of 1/1/2016 and 12/31/2020 respectively.

9/1/2014 Permit was modified to include Chesapeake Bay TMDL requirements, including Total Phosphorus, TKN, Nitrate, Nitrite, and Total Nitrogen.

5/5/2020 The current permit was extended pursuant to SAPA<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> State Administrative Procedures Act Section 401(2) and 6 NYCRR 621.11(*I*)

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7/16/2020 Department issued a Request for Information (RFI) to modify and renew the SPDES permit due to the facility's EBPS score<sup>2</sup>. At the time of the RFI, the facility had an EBPS score of 255.

9/29/2020 The City of Norwich submitted an NY-2A permit application.

## Facility Information

This is a publicly owned treatment works that receives flow from domestic and industrial users. The sewage collection system consists of separate sewers. The treatment plant was constructed in 1989 to provide secondary treatment and is permitted for a summer monthly average flow of 2.2 MGD and a winter monthly average flow of 2.5 MGD.

The current treatment plant consists of:

- Preliminary Treatment: Bar Screens and Aerated Grit Chambers
- Primary Treatment: Primary Clarifiers
- Secondary Treatment: Rotating Biological Contractors (RBCs) and Secondary Clarifiers
- Disinfection: Chlorine Contact Tank

Sludge is pumped from the primary and secondary settling tanks to the sludge thickener and hauled to the Chenango County Landfill.

#### Description of Outfall

The facility discharges treated wastewater to the Chenango River through Outfall 001. The outfall is located at the riverbank and is not submerged.

Municipality	POSS Registration # or SPDES #	Combined Sewer Overflow (CSO)?	Sanitary Sewer Overflow (SSO)?
City of Norwich	NY0021423	No	No

The facility accepts wastewater from the following municipalities:

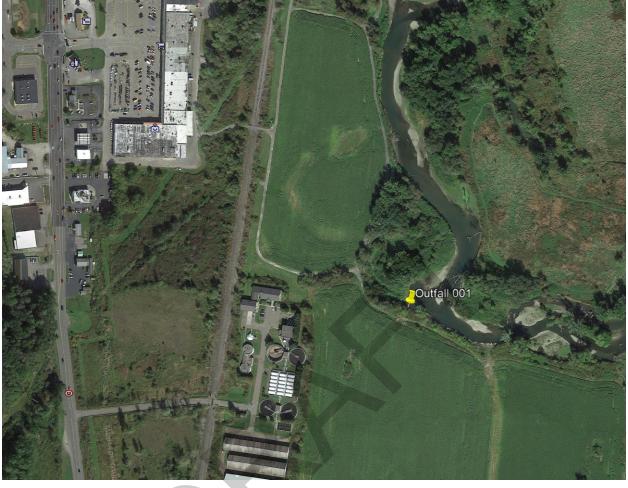
The facility accepts wastewater from the following significant industrial users and will continue to implement their mini-industrial pretreatment program:

Significant Industrial User (SIU)	Categorical Reference (if applicable to 40 CFR)	
Landfill Leachate Chenango County Landfill (SIC = 4953)	40 CFR Part 445	
Recycled Water Golden Artist (Paint Manufacturer) (SIC = 2851)	40 CFR Part 446	

<sup>&</sup>lt;sup>2</sup> Pursuant to 6 NYCRR 750-1.18 and NYS Environmental Benefit Permit Strategy (EBPS)

Date: November 23, 2022 Permit Writer: Rashid Ahmed Water Quality Reviewer: Rashid Ahmed Full Technical Review

## Site Overview



#### Outfall 001 view



Stream view near the outfall 001.



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#### **Enforcement History**

Compliance and enforcement information can be found on the EPA's <u>Enforcement and</u> <u>Compliance History Online (ECHO)</u> website.

#### Existing Effluent Quality

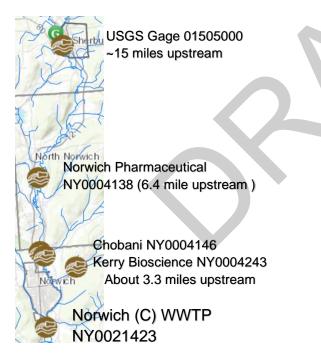
The <u>Pollutant Summary Table</u> presents the existing effluent quality and permit limitations for discharges from the facility. Concentration and mass data are presented, based on Discharge Monitoring Reports submitted by the permittee for the period 01/01/2017 to 12/31/2020.

## **Receiving Water Information**

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	4952	Treated sanitary and industrial wastewater	Chenango River, Class C

The picture below includes all upstream facilities that discharge in the same reach of the Chenango River. The dissolved oxygen model has included all these facilities' discharges since these facilities are located in close proximity of Norwich STP. The picture also includes the location of the USGS gage station where the 7Q10 flow has been determined.



The location of the outfall(s), and the name, classification, and index numbers of the receiving waters are indicated in the <u>Outfall and Receiving Water Summary Table</u> at the end of this fact sheet. <u>Appendix Link</u>

Date: November 23, 2022 Permit Writer: Rashid Ahmed Water Quality Reviewer: Rashid Ahmed Full Technical Review

#### Impaired Waterbody Information

The Chenango River (PWL No. 0602-0164) is not listed on the 2018 <u>New York State Section</u> <u>303(d) List</u> of Impaired/Total Maximum Daily Load (TMDL) waters. However, this waterbody segment is located within the Chesapeake Bay Watershed and is subject to the applicable requirements of the <u>Chesapeake Bay TMDL</u> and New York's Phase III Watershed Implementation Plan (Phase III WIP) for the TMDL<sup>3</sup>, as discussed below.

#### Chesapeake Bay TMDL Watershed Information

The City of Norwich is considered a "Bay-Significant" municipal facility because its design flow is equal to or greater than 400,000 gallons per day. In accordance with the Phase III WIP, the nitrogen and phosphorus loads warrant discharge limits and effluent monitoring for these parameters.

The City of Norwich is required to sample and report Total Phosphorus as P, as well as Total Kjeldahl Nitrogen (TKN) as N, Nitrite ( $NO_2$ ) as N, Nitrate ( $NO_3$ ) as N, and to calculate Total Nitrogen as N. The Total Nitrogen and Total Phosphorus 12-month loads (TN 12-ML and TP 12-ML respectively) are defined as the sum of the current month loads added to the month loads from the eleven previous months for Nitrogen and Phosphorus, respectively. See the Pollutant Summary Table for a discussion on the derivation of Total Nitrogen and Total Phosphorus effluent limits.

The Water Quality Based Effluent Limits (WQBELs) below are set by DEC in accordance with the Phase II and III WIP.

<u>Final Limit Currently Effective</u> Total Nitrogen (as N) 12-month Load (TN 12-ML): 177,000 lbs/year

Interim Limit Effective through 12/31/2024 Total Phosphorus (as P) 12-month Load (TP 12-ML): 7,300 lbs/year

<u>Final Limit Effective 1/1/2025</u> Total Phosphorus (as P) 12-month Load (TP 12-ML): 3,610 lbs/year

#### Mixing Zone and Critical Receiving Water

The low flows for the Chenango River were found from stream monitoring data collected at the USGS Gage 01505000 (Chenango River at Sherburne NY) located approximately 15 miles upstream from the facility. Data from 1938-2019 was analyzed using the SW Toolbox software, including seasonal low flows and a drainage basin ratio analysis, as follows:

<sup>&</sup>lt;sup>3</sup> See <u>https://www.dec.ny.gov/lands/33279.html</u>

#### Summer Critical flows data: (May 1 to October 31)

DRAINAGE BASIN RATIO	1Q10	7Q10	30Q10
Gage Name	USGS	USGS	USGS
Gage ID Number	1505000	1505000	1505000
Low Flow at Gage (cfs)	22.4	24.63	29.33
Drainage Area at Gage (mi <sup>2</sup> )	263	263	263
Drainage Area at Facility (mi <sup>2</sup> )	399	399	399
Drainage Basin Ratio (facility / gage	1.5	1.5	1.5
Calculated Flow at Facility (cfs)	33.98	37.37	44.50

#### Winter Critical Flow data (November 1 to April 30):

DRAINAGE BASIN RATIO	1Q10	7Q10	30Q10
Gage Name	USGS	USGS	USGS
Gage ID Number	1505000	1505000	1505000
Low Flow at Gage (cfs)	46	58	90
Drainage Area at Gage (mi <sup>2</sup> )	263	263	263
Drainage Area at Facility (mi <sup>2</sup> )	399	399	399
Drainage Basin Ratio (facility / gage	1.5	1.5	1.5
Calculated Flow at Facility (cfs)	69.79	87.99	136.54

Dilution Ratio = (Facility Flow + Low Flow) / Facility Flow

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis			
	SUMMER SEASON (May 1 – October 31)						
001	TOGS 1.3.1						
WINTER SEASON (Nov 1 – April 30)							
001	19:1	24:1	36:1	TOGS 1.3.1			

Critical receiving water data are listed in the <u>Pollutant Summary Table</u> at the end of this fact sheet. <u>Appendix Link</u>

## Permit Requirements

The technology based effluent limitations (<u>TBELs</u>), water quality-based effluent limitations (<u>WQBELs</u>), <u>existing effluent quality</u> and a discussion of the selected effluent limitation for each pollutant present in the discharge are provided in the <u>Pollutant Summary Table</u>.

## Whole Effluent Toxicity (WET) Testing

The facility is > 1 MGD and will be required to continue WET testing. Consistent with TOGS 1.3.2, a reasonable potential analysis was performed using the existing WET data submitted for 2020 (see data below). It was determined that while the analysis indicated no potential for toxicity in the effluent, WET testing is required to continue based on the criteria listed above and WET action levels will remain in the permit. Given the dilution available and location outside of the Great Lakes basin, the permit requires chronic only WET testing. Samples will continue to be collected

Quarterly for a period of one year during calendar years ending in 0 and 5. Appendix Link

	Summer		Winter	
	Acute	Chronic	Acute	Chronic
Proposed Action Level	3.3	12	5.7	24

The acute action levels for each species represent the acute dilution ratio times a factor of 0.3. The chronic action levels represent the chronic dilution ratio.

Test Date	<sup>1</sup> MSS 48H LC50 (%Effluent)	²MSS TUa	<sup>3</sup> TUa Action Level		⁵Acute Test Result	RPD		<sup>8</sup> MSS 7D NOEC/IC25 (%Effluent)	⁰MSS NOEC/IC25 TUc		<sup>11</sup> Chronic Test Result NOEC/IC25		<sup>13</sup> Chronic WET Limit Required
03/20	>100% (FI)	<0.3 (FI)	2.6	97.5% (F)	Pass	<0.8	No	>100% (FI)/>100% (FI)	<1.0 (FI)/<1.0 (FI)	16.0	Pass/Pass	<2.6	No
05/20	>100% (FI)	<0.3 (FI)	1.7	92.5% (F)	Pass	<0.8	No	>100% (FI)/>100% (FI)	<1.0 (FI)/<1.0 (FI)	10.1	Pass/Pass	<2.6	No
07/20	>100% (FI)	<0.3 (FI)	1.7	100% (FI)	Pass	<0.8	No	>100% (FI)/>100% (FI)	<1.0 (FI)/<1.0 (FI)	10.1	Pass/Pass	<2.6	No
10/20	>100% (FI)	<0.3 (FI)	1.7	97.5% (F)	Pass	<0.8	No	>100% (FI)/>100% (FI)	<1.0 (FI)/<1.0 (FI)	10.1	Pass/Pass	<2.6	No

<sup>1</sup>Most Sensitive Species 48-hour Lethal Concentration: (F=Fish; I=Invertebrate) is the concentration or percentage of effluent that is lethal to 50% of the exposed organisms over a 48-hour period, and often indicates one species is more sensitive than the other during effluent testing.

<sup>2</sup>Most Sensitive Species Toxic Units Acute: is calculated as (100 / MSS 48H LC50). However, because < 0.3 TUa is defined as the acceptable amount of acute toxicity at the edge of the acute mixing zone, and mathematically 100 / 100 = 1.0 (i.e. a "failing result"), non-toxic acute test results are indicated as < 0.3.

<sup>3</sup>Toxic Unit Acute Action Level/Limit: is calculated as [(Acute Dilution Factor+1) x 0.3 TUa] representing the maximum allowable effluent TUa at the edge of the acute mixing zone using the seven-day once-in-ten year low flow (7Q10) ensuring acute protection of the receiving water. When the Acute Dilution Factor is <3.3, the default Acute Action Level of 0.3 TUa is used representing the maximum allowable effluent TUa at the edge of the acute for the receiving water.

<sup>4</sup>Most Sensitive Species Survival in 100% Effluent: is the lowest percentage of surviving organisms in 100% effluent, providing additional evidence of unacceptable acute toxicity when the necessary 50% or greater mortality required to generate an LC50 has not been attained. \*Denotes statistically significant mortality in 100% effluent as compared to the control.

<sup>5</sup>Acute Test Result: MSS TUa < TUa Action Level/Limit for passing effluent test result and MSS TUa > TUa Action Level//Limit for a failing effluent test result. If unacceptable mortality (i.e. statistically significant as compared to the control) is noted in 100% effluent, this may also be considered a failing test result.

<sup>6</sup>Most Sensitive Species Reasonable Potential Determination Toxic Units Acute: is calculated as (MSS TUa x 2.6), the Reasonable Potential Multiplier when four quarterly tests have been completed, taking into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity-based action level.

<sup>7</sup>Acute Whole Effluent Toxicity Limit Required: MSS RPD TUa  $\leq$  TUa Action Level, then no toxicity-based limit is required and the action level remains in place. If MSS RPD TUa > TUa Action Level, then a toxicity-based limit is required and the action level becomes the limit. \*\*In low dilution situations, the application of the RPD to the acute results often mathematically suggests the need for acute WET limits even when there is no toxicity evident in 100% effluent (a non-detect). Therefore, this data cannot be used to implement a WET limit.

<sup>8</sup>Most Sensitive Species 7-day No Observed Effect Concentration or 25% Inhibition Concentration: is the highest concentration or percentage of effluent tested that causes no statistically significant effect to the exposed test organisms as compared to the control over a 7-day period, or the concentration or percentage of effluent that causes a 25% reduction in reproduction or growth for the test population.

<sup>9</sup>Most Sensitive Species Toxic Units Chronic: is calculated as (100 / MSS 7D NOEC) or (100 / MSS 7D IC25).

<sup>10</sup>Toxic Unit Chronic Action Level/Limit: is calculated as [(Chronic Dilution Factor+1) x 1.0 TUc] representing the maximum allowable effluent TUc at the edge of the chronic mixing zone using the seven-day once-in-ten year low flow (7Q10) ensuring chronic protection of the receiving water.

<sup>11</sup>Chronic Test Result: MSS NOEC/IC25 TUc < TUc Action Level/Limit for passing effluent test result and MSS NOEC/IC25 TUc > TUc Action Level/Limit for a failing effluent test result.

<sup>12</sup>Most Sensitive Species Reasonable Potential Determination Toxic Units Chronic: is calculated as (MSS IC25 TUc x 2.6), the Reasonable Potential Multiplier when four quarterly tests have been completed, taking into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity-based action level. <sup>13</sup>Chronic Whole Effluent Toxicity Limit Required: MSS RPD IC25 TUc  $\leq$  TUc Action Level, then no toxicity-based limit is required and the action level remains in place. If MSS RPD IC25 TUc > TUc Action Level, then a toxicity-based limit is required and the action level becomes the limit. \*\*\*In low dilution situations, the application of the RPD to the chronic results often mathematically suggests the need for chronic WET limits even when there is no toxicity evident in 100% effluent (a non-detect). Therefore, this data cannot be used to implement a WET limit.

## Anti-backsliding

The limitations contained in the permit are at least as stringent as the previous permit limits and there are no instances of backsliding except winter loading limit for Total Suspended Solids (Monthly Average). The winter monthly average loading limit was 626 lbs/day in the previous permit. Part 750-2.5(e)(2) requires rounding limitation to two significant figures. However, the loading limit of 626 lbs/day was not rounded to two significant figures in the previous permit in error. The Department has corrected this error by rounding the limit to 630 lbs/day in the draft permit. This change has been performed in conformance with the anti-backsliding rule, Part 750-1.10(C)(2)(ii).

Appendix Link

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#### Antidegradation

The permit contains effluent limitations which ensure that the designated best use of the receiving waters will be maintained. Please see the Environmental Notice Bulletin for information on the State Environmental Quality Review (SEQR)<sup>4</sup> determination. <u>Appendix Link</u>

#### **Discharge Notification Act Requirements**

In accordance with the Discharge Notification Act (ECL 17-0815-a), the permittee is required to post a sign at each point of wastewater discharge to surface waters. The permit also contains a requirement that the permittee make the sampling data available, upon request, to the public.

#### Stormwater Pollution Prevention Requirements

The facility is a publicly owned treatment works greater than or equal to 1 MGD that requires SPDES permit coverage under 40 CFR 122.26 (b)(14)(ix).

On 9/29/2020, the permittee submitted a Conditional Exclusion for No Exposure Form, certifying that all industrial activities and materials are completely sheltered from exposure. This condition must be maintained for the exclusion to remain applicable. The schedule of submittals also includes a due date for re-certification every five years as required by 40 CFR 122.26(g)(iii). This requirement is new.

#### Mercury<sup>5</sup>

The multiple discharge variance (MDV) for mercury provides the framework for NYSDEC to require mercury monitoring and mercury minimization programs (MMPs), through SPDES permitting. The facility is a Class 05 municipal facility, that discharges > 1 MGD, is outside the Great Lakes Watershed, and has a potential mercury source so the permit includes requirements for the implementation of MMP Type I.

Based on one data point(s) of 2.2 ng/L collected as part of the application the facility is expected to meet the new daily max permit limit of 50 ng/L (with monthly sampling frequency). The limit represents the general level currently achievable (GLCA). The data collected will be used to establish an additional 12-month rolling average effluent limit during the next permit review.

A mercury minimization program consisting of the following is also required:

- Additional monitoring
- Control strategy for implementation of the MMP
- Annual status report (maintained onsite)

#### **Biennial Pollutant Scan**

Three effluent samples for applicable parameters must be submitted with an NY-2A Application<sup>6</sup>. The permit includes a requirement to perform biennial sampling (once every two years) of the WWTP effluent for the parameters in the NY-2A Application, Tables A – D. This requirement ensures the data is representative of effluent conditions over the permit term and will be available for the next application submittal and permit review. This requirement is new.

<sup>&</sup>lt;sup>4</sup> As prescribed by 6 NYCRR Part 617

<sup>&</sup>lt;sup>5</sup> In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

<sup>&</sup>lt;sup>6</sup> Pursuant to 40 CFR 122.21(j)(4)(vi).

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#### Mini Industrial Pretreatment Program

The permittee is required to continue implementation of a Mini Pretreatment Program because it serves Significant Industrial Users (SIUs). The program requires implementation of an industrial user compliance program, submission of user information, modification of local sewer use law (if necessary), and periodic reporting. <u>Appendix Link</u>

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## Schedule(s) of Compliance

A Schedule of Compliance is being included<sup>7</sup> for the following items (<u>Appendix Link</u>):

- Concentration limit for summer ammonia
- Continued existing schedule for attainment of final effluent limits for total phosphorus of 3,610 lbs/yr by 1/1/2025 (Chesapeake Bay WIP III)
- New compliance period for attainment of the new total phosphorus concentration limit of 1.0 mg/L by EDP + 18 months
  - This is a new requirement and the permittee has had no time to meet the WQBEL under prior permits

Note: The Department received an engineering report for phosphorus removal on June 11, 2022. Upon reviewing the report, the Department will provide its approval or denial.

## Schedule(s) of Additional Submittals

A schedule of additional submittals has been included for the following:

- Biennial pollutant scan
- Stormwater no exposure re-certification
- Mercury Minimization plan
- Mini Industrial Pretreatment Program FROSI and ICS
- Infiltration & Inflow Reporting

<sup>&</sup>lt;sup>7</sup> Pursuant to 6 NYCRR 750-1.14

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# OUTFALL AND RECEIVING WATER SUMMARY TABLE

C	Dutfall	Latitude	Longitude	Receiving Water Name	Water Class	Water Index No. / Priority Waterbody Listing (PWL) No.	Major / Sub Basin	Hardness (mg/L)	1Q10 (MGD)	7Q10 (MGD)	30Q10 (MGD)	Critical Effluent Flow (MGD)	A(A)	Dilution F	Ratio HEW	
	001 42° 30' 3								Summer Season (May – October)							
		409 001 001 N	75° 31' 00" W	Change Biver	05	SR-44	06 / 02	126 <sup>8</sup>	22	24	29	2.2	11:1	A(A) A(C) HEW ctober) 11:1 12:1 14:1 - April)		
		42° 30° 30° N	75°31 00 W	Chenango River	05	PWL: 930.4-144	06/02	120°		Win	ter Seasor	n (Novembe	r – April			
									45	57	88	2.5	19:1	24:1	36:1	

# POLLUTANT SUMMARY TABLE - Outfall 001

		Descriptio	on of Wast	tewater: N	lunicipal wa	astewater, L	andfill Leachate.	and haule	d wastewat	er						
Outfall #	001	Type of Tr	ype of Treatment: Bar Screens, Grit Removal, Primary Clarification, Secondary Treatment (RBCs), Secondary Clarification, Disinfection (chlorination)													
			Existin	ng Dischar	ge Data	-	TBELs	Water Quality Data & WQBELs							Dooio for	
Effluent Parameter	Units	Averaging Period	Permit Limit	Existing Effluent Quality <sup>9</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL	ML	Basis for Permit Requirement	
General Notes: Existing discharge data from 01/31/2017 to 12/31/2020 was obtained from Discharge Monitoring Reports provided by the permittee.																
Flow Rate	MGD	Monthly Avg	2.2	1.2 Actual Average	24	2.2	Design Flow		Narrative: No alterations that will impair the waters for their best usages. 703.2						TBEL	
(May 1 to Oct 31)	Consiste	ent with TOC	GS 1.3.3, a	a monthly a	average flow	w limitation	equal to the aver	age daily o	design capa	acity of the	treatment p	plant is specif	ied for the s	umme	r season.	
Flow Rate (Nov 1 to April 30)	MGD	Monthly Avg	2.5	2.3 Actual Average	24	2.5	Design Flow	Narrative: No alterations that will impair the waters for their best usages. 703.2 - TBEL					TBEL			
	Consiste	ent with the	previous p	permits, an	increased	monthly ave	erage flow limit of	2.5 MGD	for the wint	ter season	will continu	e.				
	SU	Minimum	6.0	5.8	48	6.0	TOCS 1 2 2	8.1		6 5 9 5	Danga		702.2		TBEL	
pН	50	Maximum	9.0	7.7	48	9.0	TOGS 1.3.3	0.1	-	6.5 – 8.5	Range	-	703.3	-	IDEL	
							lary treatment sta '5 <sup>th</sup> percentile of					uent limitatio	n equal to th	ne TBE	EL is reasonably	

<sup>&</sup>lt;sup>8</sup> Ambient hardness data obtained from RIBS station 6021053.

<sup>&</sup>lt;sup>9</sup> Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with  $\leq$  3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with > 3 nondetects)

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	01/01233	05 Munici	μαι		i uii	I ecnnical									
Temperature	°F	Daily Max	Monitor	75.2 (summer max)	48	Monitor	750-1.13	-	temperatur not be rais and shall than 5F ov	Narrative (Non-Trout): The wate temperature at the surface of a second to more than 90F and shall not be raised or lowe than 5F over the temperature the before the addition		stream shall at any point ered to more	704.2	-	Monitor
	Consiste	ent with 6 N	YCRR750	-1.13(a), m	nonitoring is	required a	nd may be used t	to inform fu	uture permit	ting decis	ions.				
Dissolved Oxygen (DO)	mg/L	Daily Min	6.0	8.9 Average	20/0	-	-	-	5.2 Critical Point	(Non- Trout) 4.0 mg/L	Narrative	6.0	703.3	-	WQBEL
Summer (May 1 to Oct 31)	The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Flow = 2.2 MGD, Effluent DO = 6.0 mg/L (permit limit) and Effluent UOD = 42 mg/L (equivalent to permit limit of 775 lbs/d at design flow of 2.2 MGD). The model also includes upstream and downstream nearby facilities (Norwich Pharmaceuticals, Chobani, and Kerry Bioscience) along with their permitted loadings (UOD and/or BOD <sub>5</sub> /NOD). The model showed that DO standards are maintained at the existing permitted limits and the summer WQBELs for UOD and DO will remain.														
Dissolved Oxygen (DO)	mg/L	Daily Min	-	-	-	-	-	-	8.9 Critical Point	(Non- Trout) 4.0 mg/L		No Reasonable Potential	703.3	-	No Limitation
Winter (Nov 1 to April 1)	and Effluupstrear	uent CBOD₅ n and down	s = 40 mg/l stream ne	(existing arby facilit	BOD₅ perm ies (Norwic	hit limit of 48	eeter-Phelps equ 5 mg/L), and NOI euticals, Chobani g limits and winte	D = 102 m , and Kerr	g/L (from ma y Bioscienc	ax measu e) along v	red ammoni /ith their pe	a of 17 mg/L a mitted loading	as NH3). Th gs (UOD an	ne mo id/or E	del also includes
5-day Chemical Biochemical	Monthly Avg         25         6         20         25           7 Day Avg         40         11         20         40					n K									
Oxygen Demand (CBOD <sub>5</sub> )	lbs/d	Monthly Avg 7 Day	459	88	20	459	TOGS 1.3.3	-	See D	N See Dissolved Oxygen reaso pote			703.3	-	TBEL
Summer (May 1 to October 31)	% Rem	Avg Minimum	668 85	156 96	20 20	668 85									
51)							ary treatment star					odate the sur	nmer UOD I	limit. A	s detailed in the
5-dav	mg/L	Monthly Avg	30	13	48	30									
Biochemical Oxygen		7 Day Avg	45	29	48	45						No			
Demand (BOD <sub>5</sub> )	lbs/d	Monthly Avg	626	197	24	626	TOGS 1.3.3	-	See D	issolved C	Dxygen	reasonable potential	703.3	-	TBEL
(BOD₅) Winter (Nov 1 —		7 Day Avg	938	393	24	938									
to April 30)	% Rem	Minimum	85	90	24	85									
		ent with TOG ownstream o			IBELs refle	ect seconda	ry treatment stan	dards. As	detailed in th	ne dissolv	ed oxygen ji	ustification, the	e existing lin	nitatio	ns are protective

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Ultimate Oxygen	lbs/d	Monthly Avg	775	545	24	-	-	-		issolved C	,,,	770	703.3	-	WQBEL
Demand UOD) Summer (May – October 31)	In additi	on, Part 750	0-2.5(e)(2)	requires r	ounding of	the effluent	DD summer limita limit to two signit to 770 lbs/day a	ficant figur	es. Monthl	y average			-	vas no	ot rounded in t
,,,,		Monthly Avg	30	8.7	48	30									
	mg/L	7 Day Avg	45	12.9	48	45				: None from sewage, wastes or other at will cause n or impair the waters					
	lbs/d	Monthly Avg	550 (summer) 626 (winter)	53	48	550/630	TOGS 1.3.3	-	industrial w wastes tha		other e	-	703.2	-	TBEL
Fotal Suspended _ Solids (TSS)	105/0	7 Day Avg	826 (summer) 938 (winter)	167	48	830/940			for their be						
	% Rem	Minimum	85	93	48	85									
i I	and 7 da Ibs/day;	ay average	limit of 938	3 for winter	were not r	ounded to ty	hificant figures. N wo significant figu o the draft permit	ires in the	previous pe	ermit. The	refore, thes	e loading limi	ts have bee	n rour	nded to 630
	mL/L	Daily Max	0.3	<0.1	48	0.3	TOGS 1.3.3	-	Narrative: wastes or deposition usages	other wast	es that will		703.2	-	TBEL
ettleable olids					limitation is ective of W		e TBEL of 0.3 mL	/L for PO	rWs providi	ng second	ary treatme	nt without filtr	ation. Giver	that a	dequate dilut
					solids for th		eason. Per TOG	S 1.3.3, th	e limitation	will apply y	ear-round ı	moving forwa	d. Four yea	rs of v	vinter monitor
Nitrogen,	mg/L	Daily Max	Monitor	35 (max of 19)	22/0	-	-			0.80		-			Discontinue
as N)	mg/L	Monthly Average	Monitor	6.7 (max of 8.2)	22/0	-	-	0.082	1.8	0.80 (as N)	A(C)	<b>10</b> (as N)	703.5	-	WQBEL
ummer – une 1 to Oct	mg/L         Monthly Average         Monitor         6.7 (max of         22/0         -         0.082         1.8         0.00 (as N)         A(C)         10 (as N)         703.5         -											entile of 11 RI			

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							19 mg/L as N) an									
							for the number of QS indicates a re									
							$_{3}$ " to "as N". Base									
							uded in the perm		shisting per	ionnance,	the facility	is expected t		new i	nonuny average	
	0			34												
	mg/L	Daily Max	Monitor	(as N)	23/0	-	-					NIa			Discontinued	
				(max of 14)				0.082	0.58	0.90	A(C)	No reasonable	703.3			
litrogen,		Monthly		9.4 (as N)	/-		750-1.13	0.002	0.56	(as N)	A(C)	potential	703.5	-		
Ammonia	mg/L	Average	Monitor	(max of	23/0	Monitor	Monitor					potential			Monitor	
as N)		, , , , , , , , , , , , , , , , , , ,		8.2)												
Martan Navid							n a winter pH of									
Vinter – Nov 1 o May 31	station datapoints collected in 1998. The temperature is consistent with TOGS 1.3.1E. The projected instream concentration was calculated using the maximum reported effluent concentration of 17 mg/L as NH <sub>3</sub> (14 mg/L as N) and an ambient upstream concentration of 0.082 mg/L (TOGS 1.3.1D). A multiplier <sup>11</sup> of 1.3 was applied to the															
U May ST							samples. In acc									
							ed instream cond									
							quirement is char						10 00000 0	00110		
	mg/L	Monthly	Monitor	-	-	-	-	-	-	-	-	Monitor		-	Monitor	
Nitrite/Nitrate/	lbs/d	Average	Monitor	-	-	-	-	-	-	-	-	Monitor	WIP III	-	Monitor	
KN	Consists	Consistent with the Phase III WIP, sampling and reporting for nitrite, nitrate, and TKN will continue to be required and will be used to inform the individual constituents of														
		Consistent with the Phase III WIP, sampling and reporting for nitrite, nitrate, and TKN will continue to be required and will be used to inform the individual constituents of the total nitrogen limitations.														
	mg/L	Monthly	Monitor	29	48	-		-	-		-	Monitor			Monitor	
	lbs/d	Average	Monitor	475	48	-	-	-	-		-	Monitor			Monitor	
	lbs/mon	Monthly	Monitor	_	_	_		-	-		-	-	Monitor	TMDL/ WIP III	-	Monitor
otal Nitrogen		Total														
-	lbs/yr	12 Month Total	177,000		48	-	-	-	-		-	177,000			TMDL	
	Consiste	ent with the	Phase III	WIP the p	ermit will c	ontinue to i	nclude an annual	loading lir	mitation for	total nitro	gen of 177,	000 lbs/yr. M	ore informa	ition is	s provided in the	
	Chesape	<u>eake Bay Tl</u>	<u>MDL discu</u>	<u>ssion</u> in th	is factsheet	t. The total r	nitrogen adjusted	and delive	ered, as we	ll as the TF	credit hav	e been remov	ed from the	e perm	iit.	
	mg/L	Monthly	Monitor	0.70	48	1.0	TMDL/WIP III					-			TMDL	
	lbs/d	Avg	Monitor	25	48	-	-		None in ar			Monitor			Monitor	
	lbs/mon	Monthly Total	Monitor	248	48	-	-		s of algae, v npair the wa			Monitor	WIP III	-	Monitor	
otal Phosphorus	lbs/yr	12 Month Total	3,610	2980	48	-	-	usages.			3,610			TMDL		
	Consiste	ent with the	Phase III \	WIP, and t	o maximize	phosphoru	s removal <sup>12</sup> , the	permit incl	udes a tota	l phosphor	us concent	ration limit of	1.0 mg/L ex	press	ed as a monthly	
	Consistent with the Phase III WIP, and to maximize phosphorus removal <sup>12</sup> , the permit includes a total phosphorus concentration limit of 1.0 mg/L expressed as a monthly average and a final annual loading limitation of 3610 lbs/yr (effective 1/1/2025 with interim loading limit of 7300 lb/yr). The 1.0 mg/L phosphorus concentration is achievable															
	average	and a final	annual loa	ding limita	tion of 3610	) lbs/yr (effe	ctive 1/1/2025 wi	th interim I	oading limit	t of 7300 lb	/yr). The 1.	0 mg/L phosp	horus conc	entrati	on is achievable	
	•			•		• •	ctive 1/1/2025 wi ; however, additi		•		• /	• • •				

Т

 <sup>&</sup>lt;sup>10</sup> As recommended from EPA's Technical Support Document, Chapter 3.3
 <sup>11</sup> As recommended from EPA's Technical Support Document, Chapter 3.3
 <sup>12</sup> Consistent with NYCRR 750-2.8(a)(5).

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		n the perm			n limit shall	become eff	ective 18 months	after the e	effective dat	te of the pe	ermit. Loadi	ng limits are c	iscussed m	ore in	the <u>Chesapeake</u>
	ng/L	Daily Max	-	2.2	1	-	-	-	-	0.7	H(FC)	50	GLCA	-	DOW 1.3.10
Mercury	See <u>Mercury section of the factsheet.</u>														
	#/100	30d Geo Mean	200	36	20	200	TOGS 1.3.3	-	Narrative: The monthly geometric mean, from a minimum of five examinations, shall 703.4 - not exceed 200.						TBEL
Coliform, Fecal	ml	7d Geo Mean	400	115	20	400	TOGS 1.3.3	-							
		Consistent with TOGS 1.3.3, effluent disinfection will continue to be required seasonally. The disinfection season is being adjusted to May 1st - October 31st, due to th class of the receiving waterbody. Fecal coliform limits equal to the TBEL are specified.													
	mg/L	Daily Max	0.5	0.29	20	2.0	TOGS 1.3.3		-	0.005	A(C)	0.60	703.3	-	Current Limit
Total Residual Chlorine	and a de		of five. Sin	ce the cur			main a permit req ent and the DMR								
<b>Additional Poll</b>	utants D	etected in N	NY-2A Ap	plication											
Di-n-octyl	ug/L	-	-	12	1	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
phthalate	No wate	er quality sta	ndard exis	sts for Clas	ss C waterb	odies.									

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# Appendix: Regulatory and Technical Basis of Permit Authorizations

The information presented in the Appendix is meant to supplement the factsheet for multiple types of permits and may not be applicable to this specific permit.

## Regulatory References

The requirements included in SPDES permits are based on both federal and state laws, regulations, policies, and guidance.

- Clean Water Act (CWA) 33 section USC 1251 to 1387
- Environmental Conservation Law (ECL) Articles 17 and 70
- Federal Regulations
  - 40 CFR, Chapter I, subchapters D, N, and O
- State environmental regulations
  - o 6 NYCRR Part 621
  - o 6 NYCRR Part 750
  - 6 NYCRR Parts 700 704 Best use and other requirements applicable to water classes
  - 6 NYCRR Parts 800 941 Classification of individual surface waters
- NYSDEC water program policy, often referred to as Technical and Operational Guidance Series memos (TOGS)
- USEPA Office of Water Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E

#### The following is a quick guide to the references used within the factsheet:

SPDES Permit Requirements	Regulatory Reference
Anti-backsliding	6 NYCRR 750-1.10(c)
Best Management Practices (BMPS) for CSOs	6 NYCRR 750-2.8(a)(2)
Environmental Benefits Permit Strategy (EBPS)	6 NYCRR 750-1.18, NYS ECL 17-0817(4), TOGS 1.2.2 (revised
	January 25,2012)
Exceptions for Type I SSO Outfalls (bypass)	6 NYCRR 750-2.8(b)(2), 40 CFR 122.41
Mercury Multiple Discharge Variance	Division of Water Program Policy 1.3.10
	(TOGS 1.3.10)
Mixing Zone and Critical Water Information	TOGS 1.3.1 & Amendments
PCB Minimization Program	40 CFR Part 132 Appendix F Procedure 8, 6 NYCRR 750-1.13(a)
	and 750-1.14(f), and TOGS 1.2.1
Pollutant Minimization Program (PMP)	6 NYCRR 750-1.13(a), 750-1.14(f), TOGS 1.2.1
Schedules of Compliance	6 NYCRR 750-1.14
Sewage Pollution Right to Know (SPRTK)	NYS ECL 17-0826-a, 6 NYCRR 750-2.7
State Administrative Procedure Act (SAPA)	State Administrative Procedure Act Section 401(2), 6 NYCRR
	621.11(l)
State Environmental Quality Review (SEQR)	6 NYCRR Part 617
USEPA Effluent Limitation Guidelines (ELGs)	40 CFR Parts 405-471
USEPA National CSO Policy	33 USC Section 1342(q)
Whole Effluent Toxicity (WET) Testing	TOGS 1.3.2
General Provisions of a SPDES Permit Department	NYCRR 750-2.1(i)
Request for Additional Information	

The provisions of the permit are based largely upon 40 CFR 122 subpart C and 6 NYCRR Part 750 and include monitoring, recording, reporting, and compliance requirements, as well as general conditions applicable to all SPDES permits.

#### Outfall and Receiving Water Information

#### Impaired Waters

The NYS 303(d) List of Impaired/TMDL Waters (<u>http://www.dec.ny.gov/chemical/31290.html)</u> identifies waters where specific designated uses are not fully supported and for which the state must consider the development of a TMDL or other strategy to reduce the input of the specific pollutant(s) that restrict waterbody uses, in order to restore and protect such uses. SPDES permits must include effluent limitations necessary to implement a

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WLA of an EPA-approved TMDL (6 NYCRR 750-1.11(a)(5)(ii)), if applicable. In accordance with 6 NYCRR 750-1.13(a), permittees discharging to waters which are on the list but do not yet have a TMDL developed may be required to perform additional monitoring for the parameters causing the impairment. Accurate monitoring data is needed for the development of the TMDL, and to allow the Department to accurately determine the existing capabilities of the wastewater treatment plant to assure that wasteload allocations (WLAs) are allocated equitably.

## Existing Effluent Quality

During development of the permit, a statistical evaluation of existing effluent quality is performed to calculate the 95<sup>th</sup> (monthly average) and 99<sup>th</sup> (daily maximum) percentiles of the existing effluent quality. That evaluation is completed in accordance with TOGS 1.2.1 and the USEPA Office of Water <u>Technical Support Document for</u> <u>Water Quality-based Toxics Control</u>, March 1991, Appendix E. When there are three or fewer non-detects, a lognormal distribution of the data is assumed, and lognormal calculations are used to determine the monthly average and daily maximum concentrations of the existing effluent. When there are greater than three non-detects, a delta-lognormal distribution is assumed, and delta-lognormal calculations are used to determine the monthly average and daily maximum pollutant concentrations. Statistical calculations are not performed for parameters where there are less than ten data points. If additional data is needed, a monitoring requirement may be specified either through routine monitoring or a short-term high intensity monitoring program. The <u>Pollutant Summary Table</u> identifies the number of sample data points available.

## **Permit Requirements**

## **Basis for Effluent Limitations**

Sections 101, 301, 304, 308, 401, 402, and 405 of the CWA and Titles 5, 7, and 8 of Article 17 ECL, as well as their implementing federal and state regulations, and related guidance, provide the basis for the effluent limitations and other conditions in the permit.

When conducting a full technical review of an existing permit, the previous permit limitations form the basis for the next permit. Existing effluent quality is evaluated against the existing permit limitations to determine if these should be continued, revised, or deleted. Generally, existing limitations are continued unless there are changed conditions at the facility, the facility demonstrates an ability to meet more stringent limitations, and/or in response to updated regulatory requirements. Pollutant monitoring data is also reviewed to determine the presence of additional contaminants that should be included in the permit based on a reasonable potential analysis to cause or contribute to a water quality standards violation.

## Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(*I*) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a caseby-case basis in this factsheet. Consistent with current case law<sup>13</sup> and USEPA interpretation<sup>14</sup> anti-backsliding requirements do not apply should a revision to the final effluent limitation take effect before the scheduled date of compliance for that final effluent limitation.

#### Antidegradation Policy

New York State implements the antidegradation portion of the CWA based upon two documents: (1) Organization and Delegation Memorandum #85-40, "Water Quality Antidegradation Policy" (September 9, 1985); and, (2) TOGS 1.3.9, "Implementation of the NYSDEC Antidegradation Policy – Great Lakes Basin (Supplement to Antidegradation Policy dated September 9, 1985) (undated)." The permit for the facility contains effluent limitations which ensure that the existing best usage of the receiving waters will be maintained. To further support

<sup>13</sup> American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)
 <sup>14</sup> U.S. EPA, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; 65 Fed. Reg. 31682, 31704 (May 18, 2000); Proposed Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20802, 20837 & 20981 (April 16, 1993)
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Permittee: City of Norwich Facility: Norwich (C) Wastewater Treatment Plant SPDES Number: NY0021423 USEPA Major/Class 05 Municipal the antidegradation policy. SPDES application Date: November 23, 2022 Permit Writer: Rashid Ahmed Water Quality Reviewer: Rashid Ahmed Full Technical Review

the antidegradation policy, SPDES applications have been reviewed in accordance with the State Environmental Quality Review Act (SEQR) as prescribed by 6 NYCRR Part 617.

#### **Effluent Limitations**

In developing a permit, the Department determines the technology-based effluent limitations (TBELs) and then evaluates the water quality expected to result from technology controls to determine if any exceedances of water quality criteria in the receiving water might result. If there is a reasonable potential for exceedances of water quality criteria to occur, water quality-based effluent limitations (WQBELs) are developed. A WQBEL is designed to ensure that the water quality standards of receiving waters are met. In general, the CWA requires that the effluent limitations for a particular pollutant are the more stringent of either the TBEL or WQBEL.

#### Technology-based Effluent Limitations (TBELs)

CWA sections 301(b)(1)(B) and 304(d)(1), 40 CFR 133.102, ECL section 17-0509, and 6 NYCRR 750-1.11 require technology-based controls, known as secondary treatment. These and other requirements are summarized in TOGS 1.3.3. Equivalent secondary treatment, as defined in 40 CFR 133.105, allow for effluent limitations of the more stringent of the consistently achievable concentrations or monthly/weekly averages of 45/65 mg/l, and the minimum monthly average of at least 65% removal. Consistently achievable concentrations are defined in 40 CFR 133.101(f) as the 95th percentile value for the 30-day (monthly) average effluent quality achieved by the facility in a period of two years. The achievable 7-day (weekly) average value is equal to 1.5 times the 30-day average value calculated above. Equivalent secondary treatment applies to those facilities where the principal treatment process is either a trickling filter or a waste stabilization pond; the treatment works provides significant biological treatment of municipal wastewater; and, the effluent concentrations consistently achievable through proper operation and maintenance of the facility cannot meet traditional secondary treatment requirements.

#### Other Technology Based Effluent Limitations:

There are no federal technology-based standards for toxic pollutants from POTWs. For each toxic parameter present in the discharge a Reasonable Potential Analysis is conducted. This may be a statistical analysis of existing data in accordance with TOGS 1.2.1, or an assessment of the technology employed at the facility and selection of the appropriate limitation from TOGS 1.2.1 Attachment C. Where the TBEL is more stringent than the WQBEL, the TBEL is applied as an action level in accordance with TOGS 1.3.3.

#### Water Quality-Based Effluent Limitations (WQBELs)

In addition to the TBELs, permits must include additional or more stringent effluent limitations and conditions, including those necessary to protect water quality. CWA sections 101 and 301(b)(1)(C), 40 CFR 122.44(d)(1), and 6 NYCRR Parts 700-704 and 750-1.11 require that permits include limitations for all pollutants or parameters which are or may be discharged at a level which may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. The limitations must be stringent enough to ensure that water quality standards are met and must be consistent with any applicable WLA which may be in effect through a TMDL for the receiving water. These and other requirements are summarized in TOGS 1.1.1, 1.3.1, 1.3.2, 1.3.5 and 1.3.6.

#### Mixing Zone Analyses

Mixing zone analyses are conducted in accordance with the following:

"EPA Technical Support Document for Water Quality-Based Toxics Control" (March 1991); EPA Region VIII's "Mixing Zones and Dilution Policy" (December 1994); NYSDEC TOGS 1.3.1, "Total Maximum Daily Loads and Water Quality-Based Effluent Limitations" (July 1996); "CORMIX v11.0" (2019).

#### Critical Flows

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In accordance with TOGS 1.2.1 and 1.3.1, water quality-based effluent limitations are developed using dilution ratios that relate the critical low flow condition of the receiving waterbody to the critical effluent flow. The critical low flow condition used in the dilution ratio will be different depending on whether the limitations are for aquatic or human health protection. For chronic aquatic protection, the critical low flow condition of the waterbody is typically represented by the 7Q10 flow and is calculated as the lowest average flow over a 7-day consecutive period within 10 years. For acute aquatic protection, the critical low flow condition is typically represented by the 1Q10 and is calculated as the lowest 1-day flow within 10 years. However, NYSDEC considers using 50% of the 7Q10 to be equivalent to the 1Q10 flow. For the protection of human health, the critical low flow condition is typically represented by the 30Q10 flow and is calculated as the lowest average flow over a 30-day consecutive period within 10 years. However, NYSDEC considers using 1.2 x 7Q10 to be equivalent to the 30Q10. The 7Q10 or 30Q10 flow is used with the critical effluent flow to calculate the dilution ratio. The critical effluent flow can be the maximum daily flow reported on the permit application, the maximum of the monthly average flows from discharge monitoring reports for the past three years, or the facility design flow. When more than one applicable standard exists for aquatic or human health protection for a specific pollutant, a reasonable potential analysis is conducted for each applicable standard and corresponding critical flow to ensure effluent limitations are sufficiently stringent to ensure all applicable water quality standards are met as required by 40 CFR 122.44(d)(1)(i). For brevity, the pollutant summary table reports the results of the most conservative scenario.

#### Reasonable Potential Analysis (RPA)

The Reasonable Potential Analysis (RPA) is a statistical estimation process, outlined in the 1991 USEPA Technical Support Document for Water Quality-based Toxics Control (TSD), Appendix E. This process uses existing effluent quality data and statistical variation methodology to project the maximum amounts of pollutants that could be discharged by the facility. This projected instream concentration (PIC) is calculated using the appropriate ratio and compared to the water quality standard (WQS). When the RPA process determines the WQS may be exceeded, a WQBEL is required. The procedure for developing WQBELs includes the following steps:

1) identify the pollutants present in the discharge(s) based upon existing data, sampling data collected by the permittee as part of the permit application or a short-term high intensity monitoring program, or data gathered by the Department;

2) identify water quality criteria applicable to these pollutants;

3) determine if WQBELs are necessary (i.e. reasonable potential analysis (RPA)). The RPA will utilize the procedure outlined in Chapter 3.3.2 of EPA's Technical Support Document (TSD). As outlined in the TSD, for parameters with limited effluent data the RPA may include multipliers to account for effluent variability; and,

4) calculate WQBELs (if necessary). Factors considered in calculating WQBELs include available dilution of effluent in the receiving water, receiving water chemistry, and other pollutant sources.

The Department uses modeling tools to estimate the expected concentrations of the pollutant in the receiving water and develop WQBELs. These tools were developed in part using the methodology referenced above. If the estimated concentration of the pollutant in the receiving water is expected to exceed the ambient water quality standard or guidance value, then there is a reasonable potential that the discharge may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. If a TMDL is in place, the facility's WLA for that pollutant is applied as the WQBEL.

For carbonaceous and nitrogenous oxygen demanding pollutants, the Department uses a model which incorporates the Streeter-Phelps equation. The equation relates the decomposition of

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inorganic and organic materials along with oxygen reaeration rates to compute the downstream dissolved oxygen concentration for comparison to water quality standards.

## Whole Effluent Toxicity (WET) Testing:

WET tests use small vertebrate and invertebrate species to measure the aggregate toxicity of an effluent. There are two different durations of toxicity tests: acute and chronic. Acute toxicity tests measure survival over a 96-hour test exposure period. Chronic toxicity tests measure reductions in survival, growth, and reproduction over a 7-day exposure. TOGS 1.3.1 includes guidance for determining when aquatic toxicity testing should be included in SPDES permits. The authority to require toxicity testing is in Part 702.16(b) of Chapter X, Title 6 of the New York State Codes, Rules, and Regulations. TOGS 1.3.2 describes the procedures which should be followed when determining whether to include toxicity testing in a SPDES permit and how to implement a toxicity testing program. Per TOGS 1.3.2, WET testing may be required when any one of the following seven criteria are applicable:

- 1. There is the presence of substances in the effluent for which ambient water quality criteria do not exist.
- 2. There are uncertainties in the development of TMDLs, WLAs, and WQBELs, caused by inadequate ambient and/or discharge data, high natural background concentrations of pollutants, available treatment technology, and other such factors.
- 3. There is the presence of substances for which WQBELs are below analytical detectability.
- 4. There is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or exceeds five.
- 5. There are observed detrimental effects on the receiving water biota.
- 6. Previous WET testing indicated a problem.
- 7. POTWs which exceed a discharge of 1 MGD. Facilities of less than 1 MGD may be required to test, e.g., POTWs <1 MGD which are managing industrial pretreatment programs.

#### Minimum Level of Detection

Pursuant to 40 CFR 122.44(i)(1), SPDES permits must contain monitoring requirements using sufficiently sensitive test procedures approved under 40 CFR Part 136. A method is "sufficiently sensitive" when the method's minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant parameter; or the lowest ML of the analytical methods approved under 40 CFR Part 136. The ML represents the lowest level that can be measured within specified limitations of precision and accuracy during routine laboratory operations on most effluent matrices. When establishing effluent limitations for a specific parameter (based on technology or water quality requirements), it is possible that the calculated limitation will fall below the ML established by the approved analytical method(s). In these instances, the calculated limitation is included in the permit with a compliance level set equal to the ML of the most sensitive method.

#### **Monitoring Requirements**

CWA section 308, 40 CFR 122.44(i), and 6 NYCRR 750-1.13 require that monitoring be included in permits to determine compliance with effluent limitations. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required. The permittee is responsible for conducting the monitoring and reporting results on Discharge Monitoring Reports (DMRs). The permit contains the monitoring requirements for the facility. Monitoring frequency is based on the minimum sampling necessary to adequately monitor the facility's performance and characterize the nature of the discharge of the monitored flow or pollutant. Variable effluent flows and pollutant levels may be required to be monitored at more frequent intervals than relatively constant effluent flow and pollutant levels (6 NYCRR 750-1.13). For industrial facilities, sampling frequency is based on guidance provided in TOGS 1.2.1. For municipal facilities, sampling frequency is based on guidance provided in TOGS 1.3.3.

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#### Mercury

The multiple discharge variance (MDV) for mercury was developed in accordance with 6 NYCRR 702.17(h) "to address widespread standard or guidance value attainment issues including the presence of a ubiquitous pollutant or naturally high levels of a pollutant in a watershed." The first MDV was issued in October 2010, and subsequently revised and reissued in 2015; each subsequent iteration of the MDV is designed to build off the previous version, to make reasonable progress towards the water quality standard (WQS) of 0.7 ng/L dissolved mercury. The MDV is necessary because human-caused conditions or sources of mercury prevent attainment of the WQS and cannot be remedied (i.e., mercury is ubiquitous in New York waters at levels above the WQS and compliance with a water quality based effluent limitation (WQBEL) for mercury cannot be achieved with demonstrated effluent treatment technologies). The Department has determined that the MDV is consistent with the protection of public health, safety, and welfare. During the effective period of this MDV, any increased risks to human health are mitigated by fish consumption advisories issued periodically by the NYSDOH.

All surface water SPDES permittees are eligible for authorization by the MDV provided they meet the requirements specified in DOW 1.3.10.

There have been a number of changes to DOW 1.3.10, December 2020 (e.g., the criteria for mercury sources, the MMP Decision tree, and the MMPs themselves) which could result in less stringent effluent limitations. There are now criteria to determine if a facility has sources of mercury. Additionally, the types of MMPs have been restructured. MMP Type IV is appropriate for facilities that are not sources of mercury. A similar MMP type was not included in the 2010 or 2015 versions of DOW 1.3.10. DOW 1.3.10, Figure 1, is a decision tree, which includes the criteria used to determine if a facility has source of mercury and which MMP is appropriate for a facility.

#### Schedules of Compliance

Schedules of compliance are included in accordance with 40 CFR Part 132 Attachment F, Procedure 9, 40 CFR 122.47 and 6 NYCRR 750-1.14. Schedules of compliance are intended to, in the shortest reasonable time, achieve compliance with applicable effluent standards and limitations, water quality standards, and other applicable requirements. Where the time for compliance is more than nine months, the schedule of compliance must include interim requirements and dates for their achievement. If the time necessary to complete the interim milestones is more than nine months, and not readily divisible into stages for completion, progress reports must be required.

#### Schedules of Additional Submittals

Schedules of Submittals are used to summarize the deliverables required by the permit.

#### Industrial Pretreatment Program

Industrial Pretreatment Programs are included for POTWs that are required to have a USEPA-approved Pretreatment Program under 40 CFR Part 403. This requirement is based on 40 CFR Part 403 and TOGS 1.3.3.