



Department of  
Environmental  
Conservation

# DRAFT

## State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	<b>4952</b>	NAICS Code:	<b>221320</b>	SPDES Number:	<b>NY0024651</b>
Discharge Class (CL):	<b>07</b>	DEC Number:	<b>8-3240-00013/00001</b>		
Toxic Class (TX):	<b>T</b>	Effective Date (EDP):	<b>EDP</b>		
Major-Sub Drainage Basin:	<b>07 - 04</b>	Expiration Date (ExDP):	<b>ExDP</b>		
Water Index Number:	<b>Ont 66-12-52</b>	Item No.:	<b>898 - 121</b>	Modification Dates (EDPM):	
Compact Area:	<b>IJC</b>				

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:	<b>Village of Phelps</b>			Attention:	<b>Adam Lotyczewski – Chief Operator</b>		
Street:	<b>8 Banta Street, Suite 150</b>			State:	<b>NY</b>	Zip Code:	<b>14532</b>
City:	<b>Phelps</b>			Phone:	<b>(315) 548-3254</b>		
Email:	<a href="mailto:water@ottctel.com">water@ottctel.com</a>						

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL										
Name:	<b>Village of Phelps STP</b>									
Address / Location:	<b>60 Mill Street</b>						County:	<b>Ontario</b>		
City:	<b>Phelps (V)</b>				State:	<b>NY</b>	Zip Code:	<b>14532</b>		
Facility Location:	Latitude:	<b>42</b> °	<b>57</b> '	<b>38</b> " N	& Longitude:	<b>77</b> °	<b>03</b> '	<b>03</b> " W		
Primary Outfall No.:	<b>001</b>	Latitude:	<b>42</b> °	<b>57</b> '	<b>38</b> " N	& Longitude:	<b>77</b> °	<b>02</b> '	<b>56</b> " W	
Outfall Description:	<b>Treated Sanitary</b>	Receiving Water:	<b>Canandaigua Outlet</b>			Class:	<b>C</b>	Standard:		

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:**

BWP Permit Coordinator ([permit.coordinator@dec.ny.gov](mailto:permit.coordinator@dec.ny.gov))  
 RWE  
 RPA  
 EPA Region II ([Region2\\_NPDES@epa.gov](mailto:Region2_NPDES@epa.gov))  
 NYSEFC ([Nancy.myers@efc.ny.gov](mailto:Nancy.myers@efc.ny.gov))  
 NYSDOH District Office

Permit Administrator:	<b>Kimberly Merchant</b>	
Address:	<b>6274 East Avon-Lima Road Avon, NY 14414</b>	
Signature		Date

**DRAFT**

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## DEFINITIONS

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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 the number of months for which samples were collected in the 12-month period.
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.
Sample Frequency / Sample Type / Units	See NYSDEC's "DMR Manual for Completing the Discharge Monitoring Report for the SPDES" for information on sample frequency, type and units.

# PERMIT LIMITS, LEVELS AND MONITORING-EXISTING FACILITY

# DRAFT

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Year-round	Canandaigua Outlet	EDP	12/31/2028

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	0.304	MGD			Continuous	Recorder	X		
pH	Daily Minimum	6.5	SU			1/Day	Grab	X	X	
	Daily Maximum	8.5	SU					X	X	
Temperature	Daily Maximum	Monitor	°C			1/Day	Grab	X	X	
BOD <sub>5</sub>	Monthly Average	40	mg/L	101	lbs/d	2/Month	6-hr. Comp.	X	X	1
	7-Day Average	55	mg/L	139	lbs/d	2/Month	6-hr. Comp.		X	1
Total Suspended Solids (TSS)	Monthly Average	40	mg/L	101	lbs/d	2/Month	6-hr. Comp.	X	X	1
	7-Day Average	55	mg/L	139	lbs/d	2/Month	6-hr. Comp.		X	1
Settleable Solids	Daily Maximum	0.3	mL/L			1/Day	Grab	X	X	
Total Mercury	Daily Maximum	50	ng/L			1/month	Grab		X	

**FOOTNOTES:**

1. Effluent shall not exceed 20% and 20% of influent concentration values for BOD<sub>5</sub> & TSS respectively.

# PERMIT LIMITS, LEVELS AND MONITORING-PROPOSED FACILITY

# DRAFT

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Year-round	Canandaigua Outlet	1/1/2029	ExPD

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	0.304	MGD			Continuous	Recorder	X		
	Daily Maximum	Monitor	MGD			Continuous	Recorder	X		
	Monthly Average	Monitor	MGD			Continuous	Recorder		X	1
pH	Daily Minimum	6.5	SU			1/Day	Grab	X	X	
	Daily Maximum	8.5	SU							
Temperature	Daily Maximum	Monitor	°C			1/Day	Grab		X	
CBOD <sub>5</sub>	Monthly Average	25	mg/L	63	lbs/d	2/Month	6-hr. Comp.	X	X	2
	7-Day Average	40	mg/L	100	lbs/d	2/Month	6-hr. Comp.		X	
Total Suspended Solids (TSS)	Monthly Average	30	mg/L	76	lbs/d	2/Month	6-hr. Comp.	X	X	2
	7-Day Average	45	mg/L	110	lbs/d	2/Month	6-hr. Comp.		X	
Settleable Solids	Daily Maximum	0.3	mL/L			1/Day	Grab		X	
Ammonia (as N) June 1 <sup>st</sup> – Oct 31 <sup>st</sup>	Monthly Average	2.5	mg/L	6.3	lbs/d	2/Month	6-hr. Comp.		X	
Ammonia (as N) Nov 1 <sup>st</sup> – May 31 <sup>st</sup>	Monthly Average	7.7	mg/L	19	lbs/d	2/Month	6-hr. Comp.		X	
Total Mercury	Daily Maximum	50	ng/L			1/Month	Grab		X	
<b>EFFLUENT DISINFECTION</b>		<b>Limit</b>	<b>Units</b>	<b>Limit</b>	<b>Units</b>	<b>Sample Frequency</b>	<b>Sample Type</b>	<b>Inf.</b>	<b>Eff.</b>	<b>FN</b>
Required Seasonal from May 1st - October 31st										
Coliform, Fecal	30-Day Geometric Mean	200	No./100 mL			2/Month	Grab		X	
Coliform, Fecal	7-Day Geometric Mean	400	No./100 mL			2/Month	Grab		X	
Chlorine, Total Residual	Daily Maximum	1.8	mg/L			2/Month	Grab		X	3

**FOOTNOTES:**

1. Effluent flow monitoring is required for UV disinfection to control the bulb intensity.
2. Effluent shall not exceed 15% and 15% of influent concentration values for CBOD<sub>5</sub> & TSS respectively.
3. Sampling and reporting for total residual chlorine are only necessary if chlorine is used for disinfection, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge chlorine. Otherwise, the permittee shall report NODI-9 on the DMR.

## MERCURY MINIMIZATION PROGRAM (MMP) - Type II

1. General - 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.
2. MMP Elements - 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. Monitoring - Monitoring at Outfall001, influent and other locations tributary to compliance points shall 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. Sewage Treatment Plant Influent and/or Effluent – The permittee must collect samples at the location(s) and frequency as specified in the SPDES permit limitations table.
  - ii. Key Locations and Potential Mercury Sources – The permit includes reduced monitoring requirements and does not require key location sampling. See section 2.a.iv below.
  - iii. Hauled Wastes – 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. Decreased Monitoring Requirements – The permittee has an EEQ at or below 12 ng/L and the permit includes the following requirements:
    - 1) Reduced requirements
      - a) Conduct influent monitoring, sampling semi-annually, in lieu of monitoring within the collection system, such as at *key locations*; and
      - b) Conduct effluent compliance sampling semi-annually.
    - 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.
  - v. Additional monitoring must be completed as required elsewhere in this permit (e.g., locations tributary to compliance points).
- b. Control Strategy - The control strategy must contain the following minimum elements:
    - i. Pretreatment/Sewer Use Law - 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 for Outfall 001 -
      - 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.

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

<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 II (Continued)

- DRAFT**
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. Systems with CSO & Type II SSO Outfalls – 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 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. Bulk Chemical Evaluation – 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.
- c. **Status Report - An annual** status report must be developed and maintained on site, in accordance with the Schedule of Additional Submittals, summarizing:
- i. All MMP monitoring results for Outfall(s) 001 for the previous reporting period;
  - ii. A list of known and *potential mercury sources* for Outfall(s) 001
    - 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 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).

<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](https://www.dec.ny.gov/docs/water_pdf/dentalform.pdf)

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

3. MMP Modification - 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

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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).

- (a) On September 23, 1998, the Department approved a waiver request submitted by the permittee on September 17, 1998, requesting relief of from the above signage requirements on the basis that such a sign would have been in an area that is damaged by ice or flooding during a one-year storm, or storms of less severity. The Department reserves the right to re-evaluate the site conditions and reinstate the signage requirements.
- (b) 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.

**SCHEDULE OF COMPLIANCE**

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a) The permittee shall comply with the following schedule:

Outfall(s)	Compliance Action	Compliance Date <sup>5</sup>
001	SCHEDULE OF COMPLIANCE STATUS REPORTS <sup>6</sup> Submit interim status reports on the progress related to meeting the specified final limits.	February 1, 2025 and every 9 months thereafter until WWTP upgrades are complete
001	PRELIMINARY ENGINEERING REPORT The permittee shall submit an approvable <sup>7</sup> Preliminary Engineering Report (PER) that meets the requirements of the EFC/DEC Engineering Report Outline ( <a href="https://www.dec.ny.gov/permits/6054.html">https://www.dec.ny.gov/permits/6054.html</a> ). The report shall describe treatment alternatives that may be used to comply with the final effluent limitation(s) specified for the <a href="#">Proposed Facility</a> .	September 1, 2024
001	DESIGN DOCUMENTS The permittee shall submit approvable <sup>7</sup> Design Documents including a Basis of Design Report (BODR), Plans, Specifications, and Construction Schedule for the selected alternative that will ensure compliance with final effluent limitation(s) specified for the <a href="#">Proposed Facility</a> .	September 1, 2025
001	COMPLETE CONSTRUCTION & STARTUP OF PROPOSED FACILITY The permittee shall provide a Certificate of Completion <sup>8</sup> to the Department that the disposal system has been fully completed in accordance with the approved Design Documents.	October 1, 2028
001	COMPLY WITH FINAL EFFLUENT LIMITS The final effluent limits for the <a href="#">Proposed Facility</a> shall become effective.	January 1, 2029
001	UPGRADED FACILITY POLLUTANT SCAN The permittee shall submit effluent sample results for each of the parameters in Tables A&B in the NY-2A application, the 13 priority pollutant metals, total cyanide, and total phenols.	July 1, 2029
<b>Unless noted otherwise, the above actions are one-time requirements.</b>		

- b) The permittee shall submit a notice of 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 notifications shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance 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.
- c) 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.

<sup>5</sup> 6 NYCRR 750-1.14 (a)  
<sup>6</sup> 6 NYCRR 750-1.14 (b)  
<sup>7</sup> 6 NYCRR 750 1.2 (a)(8)  
<sup>8</sup> 6 NYCRR 750-2.10 (c)

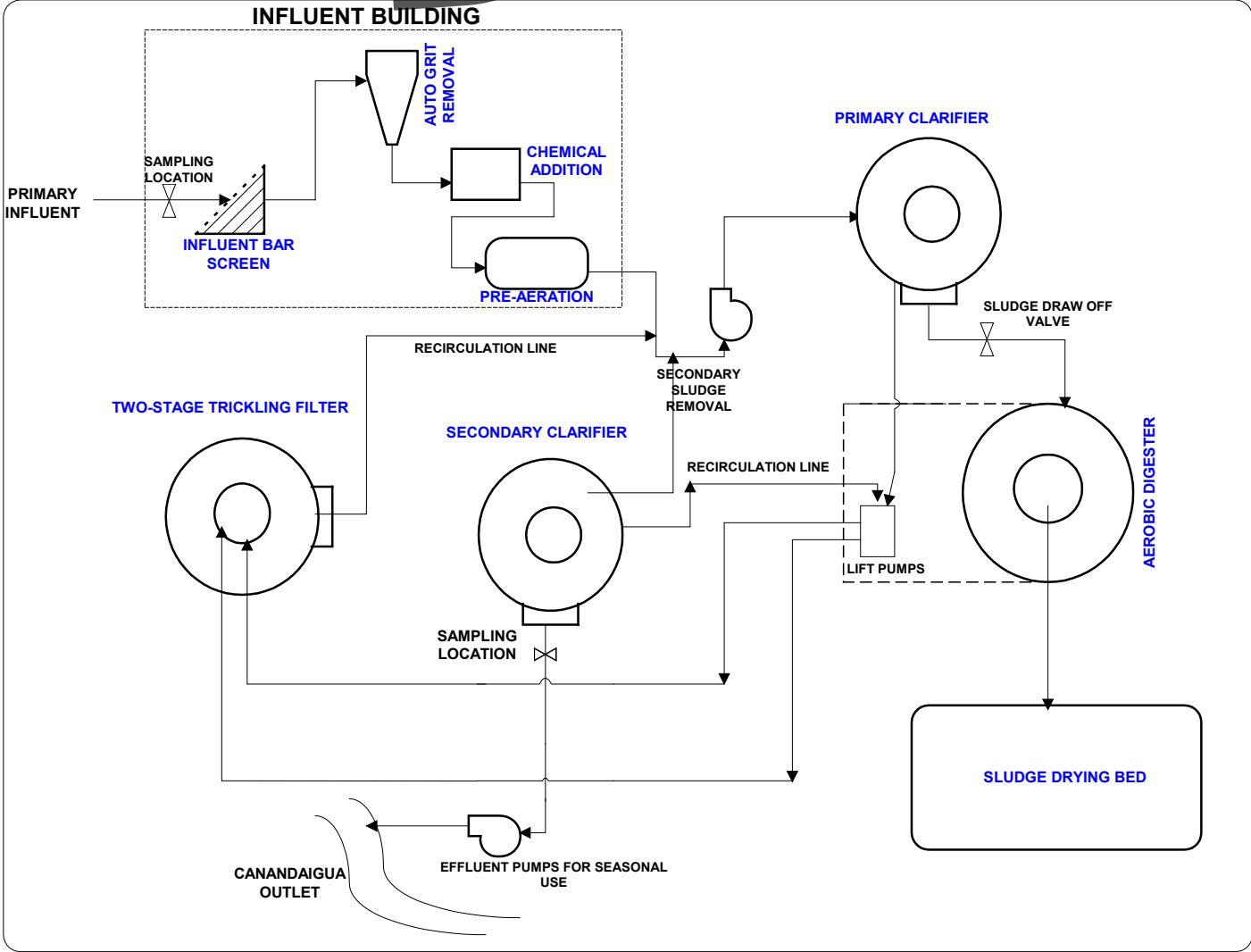
# MONITORING LOCATIONS (Existing)

# DRAFT

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

Influent: Sample is collected in influent building just ahead of the influent screen rake.

Effluent: Sample is collected at the discharge of chlorine contact chamber.



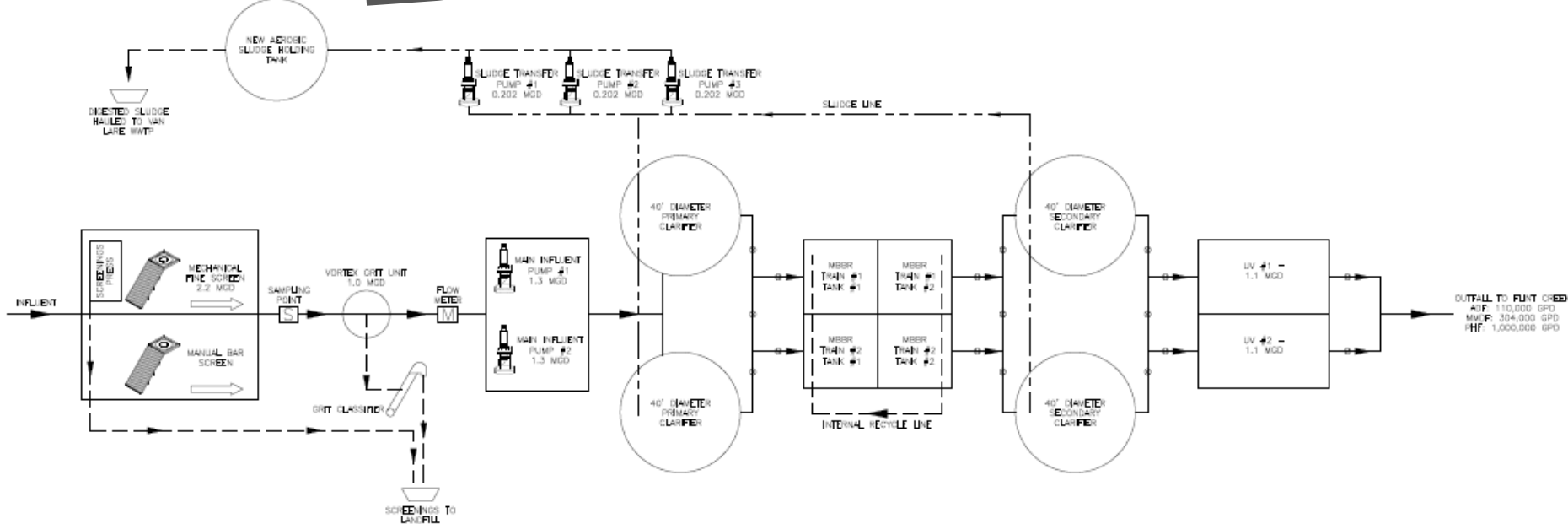
# MONITORING LOCATIONS (Proposed)

# DRAFT

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

Influent: Samples collect immediately prior to mechanical fine screens

Effluent: Samples collected after flow discharges over the UV effluent weir



## GENERAL REQUIREMENTS

# DRAFT

- 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                                | 6 NYCRR 750-2.1(e) & 2.4                |
| 2. Duty to reapply                               | 6 NYCRR 750-1.16(a)                     |
| 3. Need to halt or reduce activity not a defense | 6 NYCRR 750-2.1(g)                      |
| 4. Duty to mitigate                              | 6 NYCRR 750-2.7(f)                      |
| 5. Permit actions                                | 6 NYCRR 750-1.1(c), 1.18, 1.20 & 2.1(h) |
| 6. Property rights                               | 6 NYCRR 750-2.2(b)                      |
| 7. Duty to provide information                   | 6 NYCRR 750-2.1(i)                      |
| 8. Inspection and entry                          | 6 NYCRR 750-2.1(a) & 2.3                |
- C. Operation and Maintenance
- |                                   |                                      |
|-----------------------------------|--------------------------------------|
| 1. Proper Operation & Maintenance | 6 NYCRR 750-2.8                      |
| 2. Bypass                         | 6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7 |
| 3. Upset                          | 6 NYCRR 750-1.2(a)(94) & 2.8(c)      |
- D. Monitoring and Records
- |                           |  |
|---------------------------|--|
| 1. Monitoring and records | 6 NYCRR 750-2.5(a)(2), 2.5(a)(6), 2.5(c)(1), 2.5(c)(2), & 2.5(d) |
| 2. Signatory requirements | 6 NYCRR 750-1.8 & 2.5(b)   |
- E. Reporting Requirements
- |   |                             |
|---|-----------------------------|
| 1. Reporting requirements                     | 6 NYCRR 750-2.5, 2.7 & 1.17 |
| 2. Anticipated noncompliance                  | 6 NYCRR 750-2.7(a)          |
| 3. Transfers                                  | 6 NYCRR 750-1.17            |
| 4. Monitoring reports                         | 6 NYCRR 750-2.5(e)          |
| 5. Compliance schedules                       | 6 NYCRR 750-1.14(d)         |
| 6. 24-hour reporting                          | 6 NYCRR 750-2.7(c) & (d)    |
| 7. Other noncompliance                        | 6 NYCRR 750-2.7(e)          |
| 8. Other information                          | 6 NYCRR 750-2.1(f)          |
| 9. Additional conditions applicable to a POTW | 6 NYCRR 750-2.9             |
- F. Planned Changes
- The permittee shall give notice to the Department as soon as possible of planned physical alterations or additions to the permitted facility when:
    - 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
    - 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
    - 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.

**GENERAL REQUIREMENTS (continued)****DRAFT****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: <http://www.dec.ny.gov/permits/93245.html>

# RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

# DRAFT

- 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. Discharge Monitoring Reports (DMRs): 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 <https://www.dec.ny.gov/chemical/8461.html>. **Hardcopy paper DMRs will only be accepted 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 Regional Water Engineer 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 8  
 6274 E. Avon-Lima Road, Avon, New York, 14414-9519      Phone: (585) 226-5450

- D. Bypass and Sewage Pollutant Right to Know Reporting: 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. Schedule of Additional Submittals:

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

<b>SCHEDULE OF ADDITIONAL SUBMITTALS</b>		
<b>Outfall(s)</b>	<b>Required Action</b>	<b>Due Date</b>
001 (Proposed)	<u>WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM</u> 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> )
001 (Existing & Proposed Facility)	<u>ANNUAL FLOW CERTIFICATION</u> The permittee shall submit an Annual Flow Certification form each year in accordance with 750-2.9(C)(4). The form shall be attached to the February DMR or submitted through nForm.	February DMR (March 28 <sup>th</sup> )

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	Required Action	Due Date
001 (Existing & Proposed Facility)	<p><u>MERCURY MINIMIZATION PLAN</u>                      The permittee must complete and maintain onsite an annual mercury minimization status report in accordance with the requirements of this permit.</p>	<p><b>Maintained Onsite</b>                      EDP + 12 months, annually thereafter</p>

**Unless noted otherwise, the above actions are one-time requirements.**

- 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.



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Facility: Village of Phelps Wastewater Treatment Plant (WWTP)

Date: June 6, 2024 v.1.21

SPDES Number: NY0024651  
USEPA Non-Major/Class 07 Municipal

Permit Writer: Donald K. Cardinal  
Water Quality Reviewer: Aslam Mirza  
Full Technical Review

**DRAFT**

**SPDES Permit Fact Sheet**  
**Village of Phelps**  
**Village of Phelps Wastewater**  
**Treatment Plant (WWTP)**  
**NY0024651**



Department of  
Environmental  
Conservation

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## Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) permittee-initiated permit modification has been drafted for the Village of Phelps Wastewater Treatment Plant (WWTP). The changes to the permit are summarized below:

### General Permit Changes

- Updated permit format, definitions, and general conditions
- New schematic and monitoring locations pages
- New schedule of compliance and additional submittals
- Updated Mercury Minimization Plan to Type II
- Reinstating Discharge Notification Act waiver originally issued in 1998 concerning the final effluent signage requirements.

### Existing Facility Permit Limits Changes

- Added a Total Mercury daily maximum effluent limit of 50 ng/L

### Proposed Facility Permit Limits

- Added Daily Max and Monthly Avg. flow monitoring for the influent and effluent, respectively.
- Reduced and changed the final effluent limit for Biochemical Oxygen Demand (BOD<sub>5</sub>) from 40 mg/l (30-day average) and 55 mg/l (7-day average) to Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>) 25 mg/l (30-day average) and 40 mg/l (7-day average).
- Reduced the final effluent limit for Total Suspended Solids (TSS) from 40 mg/l (30-day average) and 55 mg/l (7-day average) to 30 mg/l (30-day average) and 45 mg/l (7-day average).
- Increased the final percent removal requirement for BOD<sub>5</sub> and TSS from 80% to 85%
- Added Winter and Summer final effluent limits for Ammonia (as N) of 7.7 mg/L (19 lbs/d) and 2.5 mg/l (6.3 lbs/d), respectively.
- Added final effluent daily maximum limit of 50 ng/L for total mercury
- Reduced the final daily max effluent limitation for total residual chlorine (TRC) from 1.9 mg/l to 1.8 mg/L

### Schedule of Compliance

- Updated the seasonal disinfection compliance schedule to allow the community time to upgrade the entire WWTP and produce a higher quality discharge to the stream. Final compliance date of 1/1/2029
- New compliance item for Complete Construction & Startup of Proposed Facility and a Comply with Final Effluent limitations
- New compliance item for Upgraded Facility Pollutant Scan

**This fact sheet summarizes the information used to determine the effluent limitations (limits) and other conditions contained in the permit. General background information including the regulatory basis for the effluent limitations and other conditions are in the [Appendix](#) linked throughout this fact sheet.**

## Administrative History

6/1/2011 The last full technical review was performed and the SPDES permit became effective.

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The permit was administratively renewed in 2014 and again in 2019.

4/30/2024 The current permit was allowed to stay in effect pursuant to SAPA<sup>1</sup>.

5/13/2019 Permit was modified in 2019 to include Disinfection.

9/1/2021 Permittee requested on 3/17/21 an extension to the Disinfection compliance schedule. NYSDEC granted the extension and the permit was modified.

1/19/2024 The Village of Phelps submitted a NY-2A permit application to upgrade the WWTP.

2/12/2024 The Village formally requested to include disinfection as part of the WWTP upgrades and modify the compliance schedule.

The Notice of Complete Application, published in the [Environmental Notice Bulletin](#) and newspapers, contains information on the public notice process.

## Facility Information

### Existing Facility

This facility is a publicly owned treatment works that receives flow from domestic users, with effluent consisting of treated sanitary wastewater. The collection system consists of separate sewers. The facility does not have any significant industrial users (SIUs).

The current 0.304 MGD treatment plant consists of:

- Preliminary Treatment: Screening and Grit Removal
- Primary Treatment: Primary Clarifier
- Secondary Treatment: Trickling filter and Final Clarifier

Due to limitations of the existing trickling filter, the current final effluent limits are equivalent secondary limits.

Sludge is digested aerobically and wet hauled to Van Lare WWTP in Rochester for further processing.

The primary outfall (Outfall 001) is discharged through a diffuser in Canandaigua Outlet just upstream of the confluence with Flint Creek.

### Proposed Facility

The facility is planning the following upgrades/improvements:

- Preliminary Treatment: New automatic bar screen and grit removal
- Fine screens for primary treatment
- Secondary Treatment: Moving Bed Biofilm Reactor
- Two final clarifiers
- UV disinfection

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

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Sludge will be digested aerobically in a new digester, gravity thickened and hauled to another facility for further treatment. The existing outfall will remain unchanged.

## Site Overview

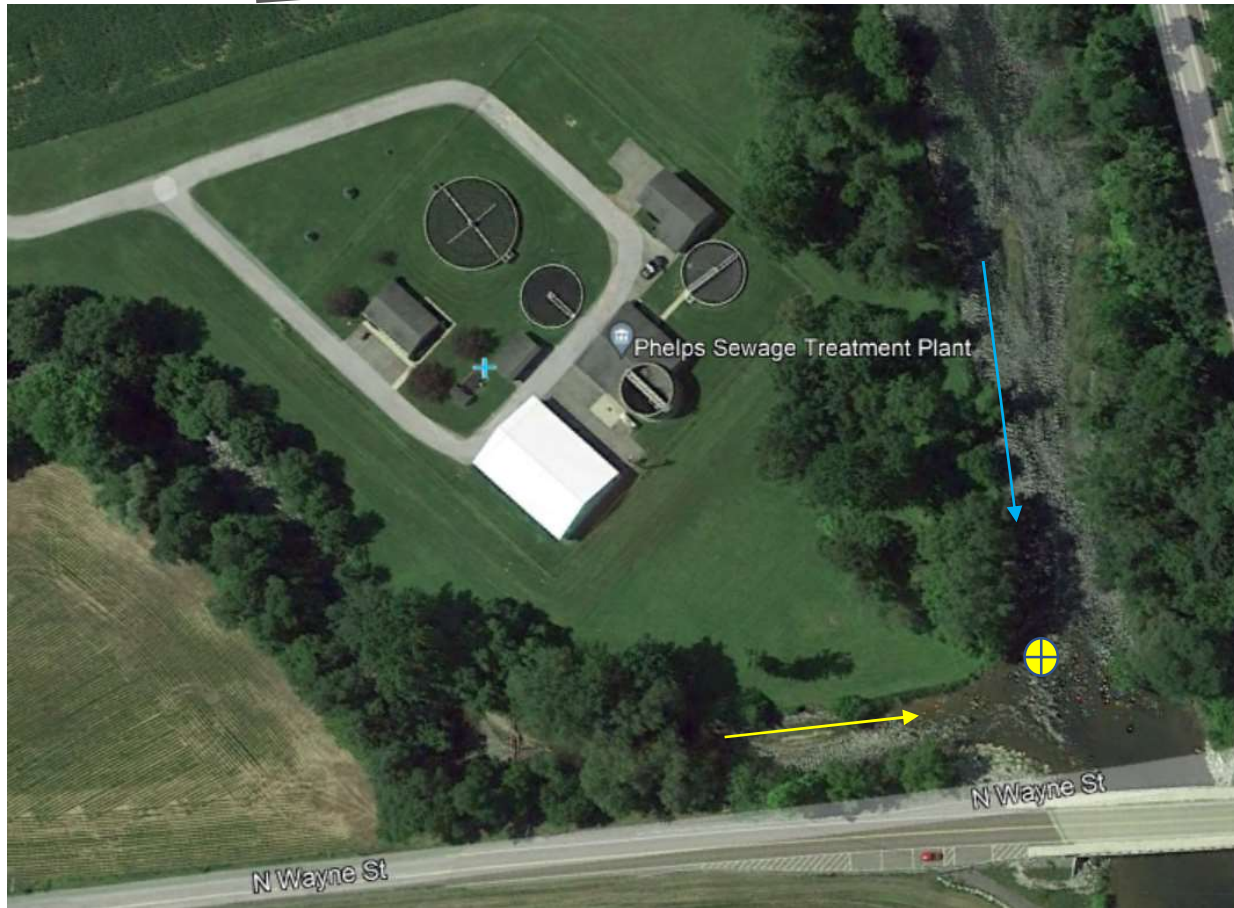


Figure 1 – Overview of the Phelps Wastewater Treatment Plant. The yellow dot with blue cross is the approximate location of the outfall (Outfall 001). Canandaigua Creek is on the North Side of the facility flowing west to east. The blue arrow represents Canandaigua Outlet and the direction of flow. The yellow arrow represents Flint Creek and the direction of flow.

## Enforcement History

Compliance and enforcement information can be found on the EPA's [Enforcement and Compliance History Online \(ECHO\)](#) website.

## Existing Effluent Quality

The [Pollutant Summary Table](#) presents the existing effluent quality and effluent limitations. Concentration and mass data are presented, based on Discharge Monitoring Reports and the application submitted by the permittee for the period 11/1/2018 to 10/31/2023. [Appendix Link](#)

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Interstate Water Pollution Control Agencies

Outfall(s) 001 is located within the Great Lakes watershed and International Joint Commission (IJC) compact area. [Appendix Link](#)

## Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	4952	Treated Sanitary Wastewater	Canandaigua Outlet, Class C

**Reach Description:** The Canandaigua Outlet (ONT-66-12-52) is a tributary to Lake Ontario beginning at the Canandaigua Lake. The discharge is in the Canandaigua Outlet about 10 feet upstream of the confluence with Flint Creek (ONT-66-12-52-40, PWL ID 0704-044). The combined flow continues to join in the Barge Canal in Lyons. The Village of Phelps discharge is downstream of the USGS Gage in Chapin. The USGS Gage for Flint Creek is located in the Village of Phelps.

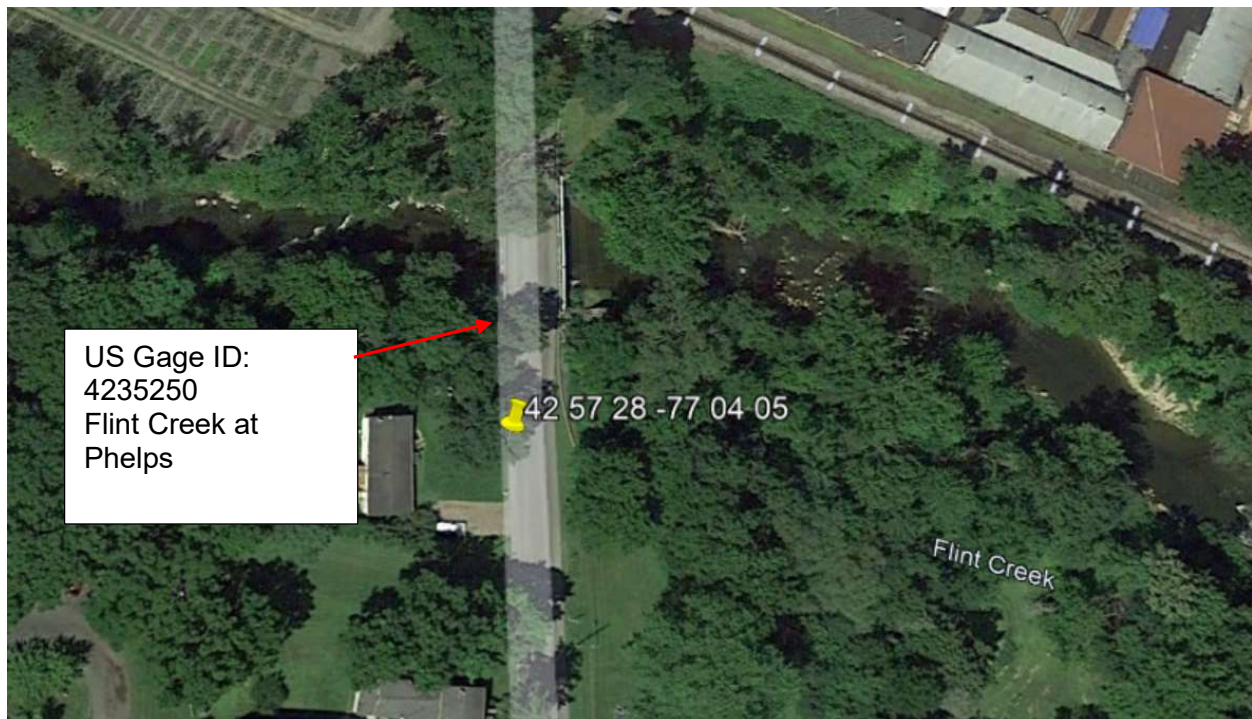


Figure 2 – USGS Stream gage to monitor Flint Creek which joins Canandaigua Outlet downstream of the WWTP Outfall.



Figure 3 – USGS Stream gage to monitor Canandaigua Outlet upstream of the WWTP Outfall.

See the [Outfall and Receiving Water Summary Table](#) and [Appendix](#) for additional information.

### Impaired Waterbody Information

The Canandaigua Outlet (PWL No. 0704-0042) is not listed on the 2018 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters, and therefore, there are no applicable wasteload allocations (WLAs) for this discharge.

### Receiving Water Data & Mixing Zone

As a part of the City of Canandaigua's SPDES permit, the City is required to release a flow 35 cfs year-round from Canandaigua Lake. The city regulates the level of Canandaigua Lake for maintaining this flow in the Canandaigua outlet via a series of gates. The flow from the Lake is discharged to the Feeder Canal which joins the Outlet downstream of the City of Canandaigua STP (NY0025968) discharge. When the drought plan is activated, this flow is reduced to either 25 cfs or 20 cfs, depending on Canandaigua Lake levels. The release flow under normal water level in the Lake and the new drought plan low flows are listed below:

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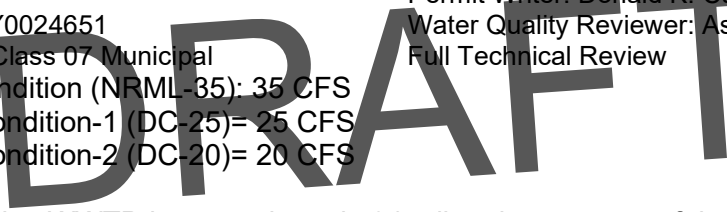
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Normal Condition (NRML-35): 35 CFS

Drought Condition-1 (DC-25)= 25 CFS

Drought Condition-2 (DC-20)= 20 CFS



The Village of Phelps WWTP is approximately 24 miles downstream of the City of Canandaigua STP discharge (NY0025968). The stretch of the Canandaigua Outlet receives treated discharge from three wastewater treatment facilities: VA Hospital (NY0024287), Manchester-Shortsville (0030813), and Clifton-Springs via Sulphur Creek (NY0020311). It also receives freshwater flow of 2 cfs (Basin Plan) from Flint Creek. The outfall terminus point of the Village of Phelps WWTP is in the middle of the Outlet and fully submerged per information provided by the permittee. In this instance, the discharge flow will be fully mixed with the ambient flow and therefore dilution will be computed using “complete mix”. Considering design flows of these facilities, freshwater inflow and the release flow from Canandaigua Lake, the flowing dilutions are indicated for the Village of Phelps WWTP.

**Flow from Upstream Facilities and Streams**

Wastewater Treatment Facility	Design Flow, cfs
Canandaigua STP	10.0
VA Hospital	0.464
Manchester-Shortsville	1.362
Clifton Springs	0.774 (2015 Permit)
<b>Total</b>	<b>12.6 cfs</b>

River Reaches which converge w/ Canandaigua Outlet	
Sulphur creek	0.25 cfs - 1Q10 (7Q10*0.5)
Sulphur creek	0.50 cfs - 7Q10 (Basin Plan)
Sulphur creek	0.60 cfs - 30Q10 (7Q10*1.2)
Flint Creek	0.105 cfs - 1Q10 (7Q10*0.5)
Flint Creek	0.209 cfs - 7Q10 (USGS-TOOLBOX-2024)
Flint Creek	0.668 cfs - 30Q10 (USGS-TOOLBOX-2024)
<b>Total (1Q10)</b>	<b>0.355 cfs</b>
<b>Total (7Q10)</b>	<b>0.709 cfs</b>
<b>Total (30Q10)</b>	<b>1.268 cfs</b>

Flow Release Condition	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
<b>SUM DC-20</b>	<b>50:1*</b>	<b>72:1</b>	<b>73:1</b>	<b>Complete Mix</b>
WIN DC-20**	-	72:1	89:1	Complete Mix

\*Dilution Capped

\*\*Winter DC-20 was used to model winter dissolved oxygen conditions in the receiving stream and calculate Winter Ammonia WQBELs

To ensure all water quality standards are met at all receiving stream low-flow conditions, all water quality bases effluent limitations (WQBELs) shall be assessed at Drought Condition 2 (DC-20).

Critical receiving water data are listed in the [Pollutant Summary Table](#) at the end of this fact sheet. [Appendix Link](#)



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## Permit Requirements

The technology based effluent limitations ([TBELs](#)), water quality-based effluent limitations ([WQBELs](#)), [Existing Effluent Quality](#) and a discussion of the selected effluent limitation for each pollutant present in the discharge are provided in the [Pollutant Summary Table](#).

### Whole Effluent Toxicity (WET) Testing

None of the seven criteria that are indicative of potential toxicity are applicable to this facility; therefore, WET testing is not included in the permit. [Appendix Link](#)

### Anti-backsliding

Effluent limitations for Fecal Coliform and Total Residual Chlorine contained within an updated compliance schedule to allow the facility time to upgrade the WWTP to meet secondary treatment standards and with a disinfection system that is appropriately designed for the upgraded facility. At the time the current permit was modified to include disinfection, the Department was unaware of the structural condition of some of the process tanks and need for complete upgrade. Backsliding is allowed under 6NYCRR Part 750-1.10(C)(2)(i) information is available, which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods), which would have justified the application of a less stringent effluent limitation at the time of permit issuance. Since the disinfection system had not been constructed prior to this permit application, the proposed limits of this permit will not degrade effluent quality discharged to the stream, the water quality will be maintained at its current status during the upgrade, and therefore, there is no backsliding as a result of this proposed permit.

### [Appendix Link](#)

### Antidegradation

The permit contains effluent limitations which ensure that the best usages of the receiving waters will be maintained. The Notice of Complete Application published in the Environmental Notice Bulletin contains information on the State Environmental Quality Review (SEQR)<sup>2</sup> determination.

### [Appendix Link](#)

### 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, unless a waiver is obtained. This requirement is updated from the previous permit. The permittee requested a waiver on 9/17/1998 and was granted a waiver on 9/23/1998.

Additionally, the permit contains a requirement to make the DMR sampling data available to the public upon request. This requirement is being continued from the previous permit.

### Mercury<sup>3</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. [Appendix Link](#)

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<sup>2</sup> As prescribed by 6 NYCRR Part 617

<sup>3</sup> In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

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The facility is located in the Great Lakes Basin, is not an EPA Major, is a Class 07 Municipal WWTP which has a dental facility using an amalgam separator as a source of mercury and the permit includes requirements for the implementation of MMP Type II.

### Schedule(s) of Compliance

A Schedule of Compliance is being included<sup>4</sup> for the following items ([Appendix Link](#)):

- Continued the seasonal disinfection compliance schedule to allow the community time to upgrade the entire WWTP and produce a higher quality discharge to the stream. Final compliance date of 1/1/2029
- New compliance item for Complete Construction & Startup of Proposed Facility and a Comply with Final Effluent limitations
- New compliance item for Upgraded Facility Pollutant Scan

### Emerging Contaminant Monitoring

Emerging Contaminants, such as Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), and 1,4-Dioxane (1,4-D), have been used in a wide variety of consumer and industrial product as well as in manufacturing processes for decades. These contaminants do not break down easily, therefore their presence in wastewater can remain a concern for years following their discontinued use. As part of the NY-2A application, the Village collected 3 samples. For more information on emerging contaminants, please see the NYSDEC Division of Water web page: <https://dec.ny.gov/environmental-protection/water/emerging-contaminants>

### Schedule(s) of Additional Submittals

A schedule of additional submittals has been included for the following ([Appendix Link](#)):

- Water Treatment Chemical (WTC) Annual Report Form
- Annual Flow Certification
- Mercury Minimization Plan

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<sup>4</sup> Pursuant to 6 NYCRR 750-1.14

## OUTFALL AND RECEIVING WATER SUMMARY TABLE

Outfall #	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)	Dilution Ratio		
												A(A)	A(C)	HEW
001	42° 57' 39" N	77° 02' 58" W	Canandaigua Outlet	C	ONT 66-12-52 PWL: 704-0042	07/04	160 <sup>5</sup>	21	22	22	0.304	50:1	72:1	73:1

## POLLUTANT SUMMARY TABLE

### Outfall 001 – Existing Facility (Interim Limits)

The existing facility (screening, grit removal, primary clarification, trickling filter, and secondary clarifier) will have interim limits consistent with the current permit with the addition of a Total Mercury effluent limitation equal to 50 ng/L. These limits will expire 12/31/2028.

### Outfall 001 – Proposed Facility (Final Limits)

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality <sup>6</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			
<b>Outfall #</b>		001	<b>Description of Wastewater:</b> Treated Municipal Sanitary Wastewater													
			<b>Type of Treatment:</b> Grit removal, Hydroscreen, Moving Bed Biofilm Reactor, Secondary Clarifier, UV Disinfection													
Flow Rate	MGD	Monthly Avg	0.304	0.114 Actual Average	59/0	0.304	Design Flow	Narrative: No alterations that will impair the waters for their best usages.						703.2	-	Design Flow
	MGD	Daily Max	Monitor	-	-	Monitor	750-1.13 Monitor							-	Monitor	
	Consistent with 40CFR Part 133.102 and TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant is specified.															

<sup>5</sup> Hardness value is from the 2011 factsheet

<sup>6</sup> Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

Outfall #	Description of Wastewater: Treated Municipal Sanitary Wastewater														
	Type of Treatment: Grit removal, Hydroscreen, Moving Bed Biofilm Reactor, Secondary Clarifier, UV Disinfection														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>6</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		
pH	SU	Minimum	6.5	6.8 Actual Min	60/0	6.0	40 CFR 133.102	8.4 <sup>7</sup>	-	6.5 – 8.5 703.3	Range	-	<a href="#">703.3</a>	-	Antibacksliding
		Maximum	8.5	8.2 Actual Max	60/0	9.0									
Consistent with ECL 17-0509, TBELs for facilities treating sanitary sewage are reflective of secondary treatment standards . Given the available dilution, an effluent limitation equal to the TBEL is protective of the WQS.															
Temperature	°C	Daily Max	Monitor	24 Actual Max	60/0	Monitor	750-1.13 Monitor	-	The water temperature at the surface of a stream shall not be raised to more than 90F at any point and... shall not be raised or lowered to more than 5F over the temperature that existed before the addition	-	-	-	<a href="#">704.2</a>	-	Monitor
Dissolved Oxygen (DO)	mg/L	Daily Min	-	-	-	-	-	-	>4.0	4.0	A(C)	-	<a href="#">703.3</a>	-	No Limitation
Dissolved Oxygen (DO)	mg/L	Daily Min	-	2.7 Actual Min	3/0	-	-	-	>4.0	4.0	A(C)	-	<a href="#">703.3</a>	-	No Limitation

<sup>7</sup> Ambient pH was calculated by taking the 80<sup>th</sup> percentile of 20 data points from RIBS stations upstream and along Canandaigua Outlet. The RIBS stations were 07-CANA-3.5, 07-CANA-21.6, 07-CANA-23.9, and 07-CANA-26.8.

Permittee: Village of Phelps  
 Facility: Village of Phelps Wastewater Treatment Plant (WWTP)  
 SPDES Number: NY0024651  
 USEPA Non-Major/Class 07 Municipal

Date: June 6, 2024 v.1.21  
 Water Quality Reviewer: Aslam Mirza  
 Full Technical Review

Permit Writer: Donald K. Cardinal

Outfall #	001	Description of Wastewater: Treated Municipal Sanitary Wastewater													
		Type of Treatment: Grit removal, Hydroscreen, Moving Bed Biofilm Reactor, Secondary Clarifier, UV Disinfection													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>6</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		
5-day Carbonaceous Biochemical Oxygen Demand (CBOD <sub>5</sub> )	mg/L	Monthly Avg	40	37	59/0	25	40 CFR 133.102	-	Dissolved Oxygen=4.0 Surrogate Std. <a href="#">703.3</a>			-		-	TBEL
		7 Day Avg	55	59	59/0	40	40 CFR 133.102					-			
	lbs/d	Monthly Avg	101	42	59/0	76	-					-			
		7 Day Avg	139	81	59/0	110	-					-			
	% Rem	Minimum	80	90 Actual Average	59/0	85	40 CFR 133.102					-			
Consistent with 40 CFR Part 133.102 and TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Given that ammonia limits are being added to the permit to control the nitrogenous oxygen demand (NOD), CBOD <sub>5</sub> effluent limitations shall replace BOD <sub>5</sub> limits. See justification for Dissolved Oxygen.															
Total Suspended Solids (TSS)	mg/L	Monthly Avg	40	30	60/0	30	40 CFR 133.102	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages. <a href="#">703.2</a>			-		-	TBEL
		7 Day Avg	55	52	60/0	45	40 CFR 133.102					-			
	lbs/d	Monthly Avg	101	33	59/0	76	-					-			
		7 Day Avg	139	66	59/0	110	-					-			
	% Rem	Minimum	80	95	59/1	85	40 CFR 133.102					-			
Consistent with 40 CFR Part 133.102 and TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Given that adequate dilution is available the TBEL is protective of water quality.															
Settleable Solids	mL/L	Daily Max	0.3	0.2	38/22	0.3	TOGS 1.3.3	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages. <a href="#">703.2</a>	-	-	-	-	-	TBEL
	Consistent with TOGS 1.3.3, the effluent limitation is equal to the TBEL of 0.3 mL/L for POTWs providing secondary treatment without filtration. Given that adequate dilution is available the TBEL is protective of WQS.														

Outfall #	Description of Wastewater: Treated Municipal Sanitary Wastewater														
	Type of Treatment: Grit removal, Hydroscreen, Moving Bed Biofilm Reactor, Secondary Clarifier, UV Disinfection														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>6</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		
Nitrogen, Ammonia (as N)	mg/L	Monthly Avg	-	-	-	-	-	0.31 Calculated	>0.33	0.33	A(C)	2.5	703.5	-	WQBEL
	lb/d	Monthly Avg	-	-	-	-	-	-	-	-	-	6.3			
SUMMER 6/1 – 10/31	The WQBEL was developed using WQ model with all the upstream discharge loads and different water release flows. These loads were adjusted to comply with the ammonia standards of 0.33 mg/l for Canandaigua Outlet (Class C). The water class changes from C-C(T)-C over a stretch of 24.164 miles starting from Canandaigua Lake (Feeder Canal). The ammonia profiles for these flow are attached in this document. The WQ Std. and WQBELs are computed at a temperature of 25°C and an ambient pH of 8.4.														
Nitrogen, Ammonia (as N)	mg/L	Monthly Avg	-	18.6 Actual Max	3/0	-	-	0.40 Calculated	>0.46	0.46	A(C)	7.7	703.5		WQBEL
	lb/d	Monthly Avg	-	-	-	-	-	-	-	-	-	19			
WINTER 11/1 – 5/31	The WQ Std. and WQBELs are computed at a temperature of 10°C. See above (Nitrogen Ammonia- Summer) for detail.														
Total Phosphorus	mg/L	Monthly Avg	-	5.68 Actual Max	3/0	-	-	-	None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages. 703.2			-	-	No Limitation	
	The phosphorus limit is not required as the discharge in in Great Lakes basin and the design flow is less than 1.0 MGD. (TOGS 1.3.6)														
Total Mercury	ng/L	Daily Max	-	9.43 Actual Max	3/0	-	-	-	-	0.7	H(FC)	50	GLCA	-	DOW 1.3.10
	See <a href="#">Mercury section of this fact sheet.</a>														
Coliform, Fecal	#/100 ml	30d Geo Mean	200	>48400 Actual Max	2/0	200	TOGS 1.3.3	-	Narrative: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.			703.4	-	TBEL	
		7d Geo Mean	400	-	-	400	TOGS 1.3.3	-							
Consistent with TOGS 1.3.3, effluent disinfection is required seasonally from May 1st - October 31st, due to the class of the receiving waterbody. Fecal coliform limits equal to the TBEL are specified. A compliance schedule is included to allow the facility time to meet this requirement.															

Permittee: Village of Phelps  
 Facility: Village of Phelps Wastewater Treatment Plant (WWTP)  
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Outfall #	Description of Wastewater: Treated Municipal Sanitary Wastewater														
	Type of Treatment: Grit removal, Hydroscreen, Moving Bed Biofilm Reactor, Secondary Clarifier, UV Disinfection														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>6</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		
Total Residual Chlorine (TRC)	mg/L	Monthly Avg	Monitor	-	-	Monitor	750-1.13 Monitor	-	-	-	-	-	-	-	Discontinued
	mg/L	Daily Max	1.9	-	-	2.0	TOGS 1.3.3	-	-	0.005	A(C)	1.8	<a href="#">703.5</a>	WQBEL	
	lb/d	Monthly Avg	Monitor	-	-	Monitor	750-1.13 Monitor	-	-	-	-	-	-	Discontinued	
	lb/d	Daily Max	Monitor	-	-	Monitor	750-1.13 Monitor	-	-	-	-	-	-	Discontinued	
Seasonal effluent disinfection was added to the permit previously and is being maintained in this permit. A compliance schedule is include to allow the facility time to meet this requirement. The TRC WQBEL was calculated by multiplying the WQS by a decay factor of 5 and the dilution ratio.															
<b>Additional Pollutants Detected</b>															
Total Dissolved Solids (TDS)	mg/L	Daily Max	-	522 Actual Max	3/0	-	-	-	44	500	Narrative	No Reasonable Potential	<a href="#">703.3</a>	-	No Limitation
	The effluent value of 522 mg/L is the maximum value of 3 samples collected as part of the NY-2A application. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, no limitation is specified.														
Nitrite (as N)	mg/L	Daily Max	-	0.30 Actual Max	3/0	-	-	-	0.013	0.1	A(C)	No Reasonable Potential	<a href="#">703.5</a>	-	No Limitation
	The effluent value of 0.3 mg/L is the maximum value of 3 samples collected as part of the NY-2A application. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, no limitation is specified.														
Nitrate (as N)	mg/L	Daily Max	-	6.86 Actual Max	3/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is not a WQS for Nitrate in a Class C waterbody.														
Total Kjeldahl Nitrogen (as N)	mg/L	Daily Max	-	19.8 Actual Max	3/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is not a WQS for Total Kjeldahl Nitrogen in a Class C waterbody.														
Total Nitrogen (as N)	mg/L	Daily Max	-	27 Actual Max	3/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is not a WQS for Total Nitrogen in a Class C waterbody.														

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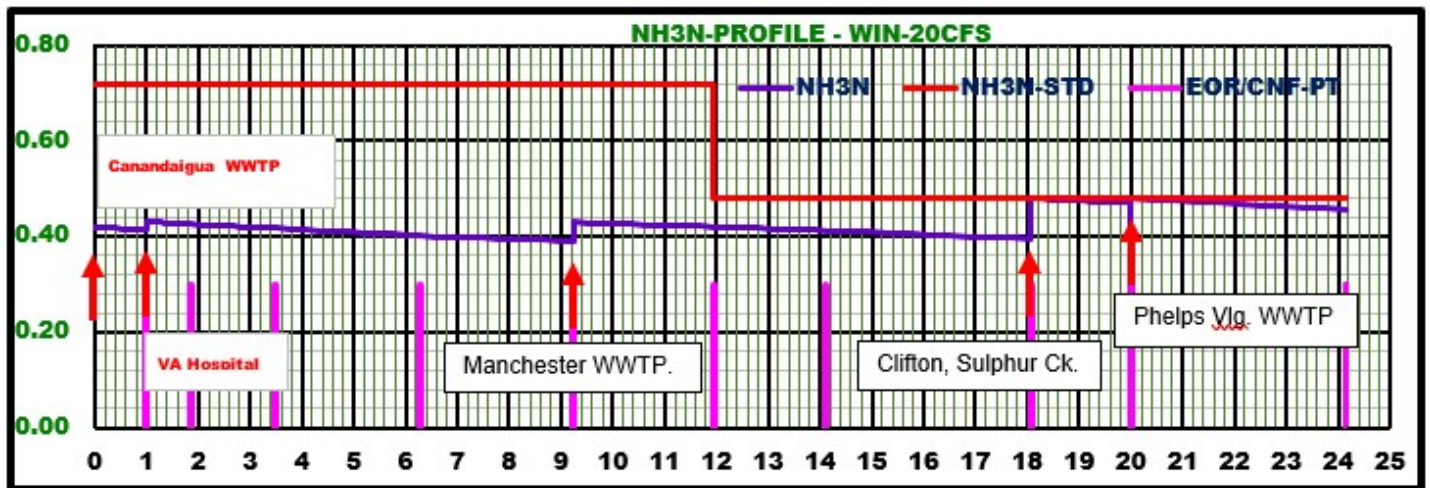
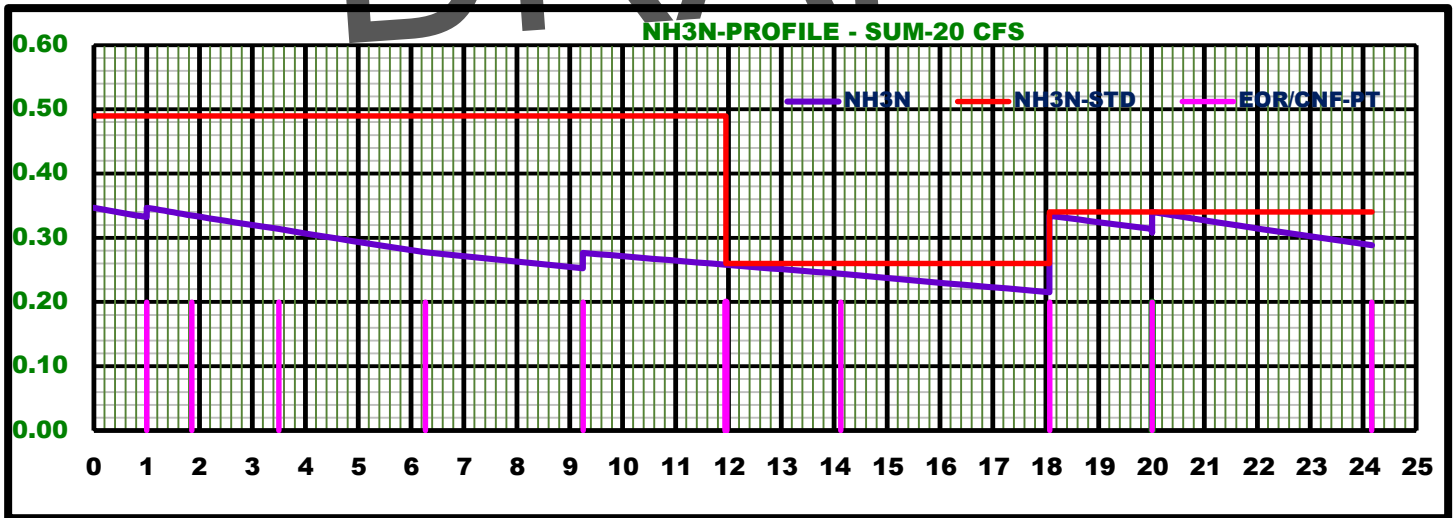
Permit Writer: Donald K. Cardinal

Outfall #	Description of Wastewater: Treated Municipal Sanitary Wastewater														
	Type of Treatment: Grit removal, Hydroscreen, Moving Bed Biofilm Reactor, Secondary Clarifier, UV Disinfection														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>6</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		
Emerging Contaminants	ng/L	Perfluorohexanoic Acid (PFHxA)	-	15.8 Actual Max	2/1	-	-	-	-	-	-	-	-	-	No Limitation
	ng/L	Perfluoropentanoic Acid (PFPeA)	-	12.1	1/2	-	-	-	-	-	-	-	-	-	
	ng/L	Perfluorooctanoic Acid (PFOA)	-	5.16 Actual Max	2/1	-	-	-	-	-	-	-	-	-	
	ug/L	1,4-Dioxane	-	0.29 Actual Max	3/0	-	-	-	0.87	18,000 GV	A(C)	No Reasonable Potential	TOGS 1.1.1 2023 Addendum	-	
As part of the NY-2A application, the Village collected 3 samples of <a href="#">Emerging Contaminants</a> . The measured values were significantly lower than the published guidance values in TOGS 1.1.1 and therefore no additional monitoring or limitations are required at this time.															
Oil & Grease	mg/L	Daily Max	-	6.1	1/3	-	-	-	Narrative: No residue attributable to sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.			<a href="#">703.2</a>	-	No Limitation	
Oil & Grease was detected in the effluent. Given that the effluent sample is not representative of the proposed treatment technology and requiring additional monitoring at this time would not be representative of the proposed system, Oil & Grease will be re-evaluated during the next permit review.															



### Ammonia Simulation Attachments

**DRAFT**



## Appendix: Regulatory and Technical Basis of Permit Authorizations

The Appendix is meant to supplement the fact sheet for multiple types of SPDES permits. Portions of this Appendix may not be applicable to this specific permit.

### Regulatory References

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. Below are the most common citations for the requirements included in SPDES permits:

- 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
  - 6 NYCRR Part 621
  - 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, referred to as Technical and Operational Guidance Series (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 fact sheet:

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 (DOW 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 Request for Additional Information	NYCRR 750-2.1(i)

### Outfall and Receiving Water Information

#### Interstate Water Pollution Control Agencies

Some POTWs may be subject to regulations of interstate basin/compact agencies including: Interstate Sanitation Commission (ISC), International Joint Commission (IJC), Delaware River Basin Commission (DRBC), Ohio River Valley Water Sanitation Commission (ORSANCO), and the Susquehanna River Basin Commission (SRBC). Generally, basin commission requirements focus principally on water quality and not treatment technology. However, interstate/compact agency regulations for the ISC, IJC, DRBC and NYC Watershed contain explicit effluent limits which must be addressed during permit drafting. 6 NYCRR 750-2.1(d) requires SPDES permits for discharges that originate within the jurisdiction of an interstate water pollution

control agency, to include any applicable effluent standards or water quality standards (WQS) promulgated by that interstate agency.

## Existing Effluent Quality

The existing effluent quality is determined from a statistical evaluation of effluent data in accordance with TOGS 1.2.1 and the USEPA Office of Water, Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E (TSD). The existing effluent quality is equal to the 95<sup>th</sup> (monthly average) and 99<sup>th</sup> (daily maximum) percentiles of the lognormal distribution of existing effluent data. 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 [Pollutant Summary Table](#) 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 effluent limitations form the basis for the next permit. Existing effluent quality is evaluated against the existing effluent 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(l) 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 case-by-case basis in this fact sheet. Consistent with current case law<sup>8</sup> and USEPA interpretation<sup>9</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 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

<sup>8</sup> American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

<sup>9</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)

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. Where the TBEL is more stringent than the WQBEL, the TBEL is applied as a limit in accordance with 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. There are no federal technology-based standards for toxic pollutants from POTWs. A statistical analysis of existing effluent data, as described in TOGS 1.2.1, may be used to establish other performance-based TBELs.

### 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 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. Additionally, 6 NYCRR Part 701.1 prohibits the discharge of pollutants that will cause impairment of the best usages of the receiving water as specified by the water classifications at the location of discharge and at other locations that may be affected by such discharge. Water quality standards can be found under 6 NYCRR Parts 700-704. The limitations must be stringent enough to ensure that water quality standards are met at the point of discharge and in downstream waters 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. The Department considers a mixing zone analysis, critical flows, and reasonable potential analysis when developing a WQBEL.

### Mixing Zone Analyses

In accordance with TOGS 1.3.1., the Department may perform additional analysis of the mixing condition between the effluent and the receiving waterbody. Mixing zone analyses using plume dispersion modeling 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

In accordance with TOGS 1.2.1 and 1.3.1, WQBELs 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  $1.2 \times 7Q10$  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 (i.e. numeric interpretation of a narrative water quality standard), 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 inorganic and organic materials along with oxygen reaeration rates to compute the downstream dissolved oxygen concentration for comparison to water quality standards.

The Division of Water has been using the TMDL approach in permit limit development for the control of toxic substances. Since the early 1980's, the loading capacity for specific pollutants has been determined for each drainage basin. Water quality-limiting segments and pollutants have been identified, TMDLs, wasteload allocations and load allocations have been developed, and permits with water quality-based effluent limits have been issued. In accordance with TOGS 1.3.1,

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the Division of Water implements a Toxics Reduction Strategy which is committed to the application of the TMDL process using numeric, pollutant-specific water quality standards through the Watershed Approach. The Watershed Approach accounts for the cumulative effect of multiple discharges of conservative toxic pollutants to ensure water quality standards are met in downstream segments.

### *Minimum Level of Detection*

Pursuant to 40 CFR 122.44(i)(1)(iv) and 6 NYCRR 750-2.5(d), 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), 6 NYCRR 750-1.13, and 750-2.5 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.

### *Other Conditions*

#### *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

Permittee: Village of Phelps

Date: June 6, 2024 v.1.21

Facility: Village of Phelps Wastewater Treatment Plant (WWTP)

Permit Writer: Donald K. Cardinal

SPDES Number: NY0024651

Water Quality Reviewer: Aslam Mirza

USEPA Non-Major/Class 07 Municipal

Full Technical Review

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.

### Schedule(s) of Additional Submittals

Schedules of Additional Submittals are used to summarize the deliverables required by the permit not identified in a separate Schedule of Compliance.