



Department of
Environmental
Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	8999	NAICS Code:	813110	SPDES Number:	NY0145190
Discharge Class (CL):	02	DEC Number:	3-3340-00214		
Toxic Class (TX):	N	Effective Date (EDP):			
Major-Sub Drainage Basin:	15 - 01	Expiration Date (ExDP):			
Water Index Number:	NJ 12-23-1-P1016K	Item No.:	860 - 94	Modification Dates (EDPM):	EDPM
Compact Area:	-				

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:	SISTERS OF THE CATHOLIC APOSTOLATE (PALLOTTINES)			Attention:	John O'Connor	
Street:	11 Seventh Street					
City:	Pelham	State:	NY	Zip Code:	10803	
Email:	Johnconnor@parishmgt.com			Phone:	914-355-4690	

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL										
Name:	St. Pat's Villa WWTP									
Address / Location:	98 Harriman Heights Road						County:	Orange		
City:	Monroe				State:	NY	Zip Code:	10950		
Facility Location:	Latitude:	41 °	17 ' 34 " N	& Longitude:	74 °	10 ' 16 " W				
Primary Outfall No.:	001	Latitude:	41 ° 17 ' 34 " N	& Longitude:	74 °	10 ' 09 " W				
Outfall Description:	Treated Sanitary	Receiving Water:	Blythea Lake			Class:	C	Standard:	-	

and the additional outfalls listed in this permit, 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
BWP – Permit Writer
CO BWC - SCIS
RWE
RPA

Permit Administrator:			
Address:	21 South Putt Corners Road, New Paltz, NY, 12561		
Signature:		Date:	/ /

SUMMARY OF ADDITIONAL OUTFALLS

Facility Name:	Queen of Apostles WWTP						
Outfall:	Wastewater Description:	Outfall Latitude:			Outfall Longitude"		
002	Treated Sanitary	41	°	17	'	31	" N
Receiving Water:	Unnamed Trib. to Little Dam Lake	Water Index Number:	Trib. of NJ 12-23-1-P1008-P1009a			Class:	B
			74	°	10	'	22 " W

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DEFINITIONS

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

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All Year	Blythea Lake	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	25,000	GPD	-	-	Continuous	Recorder	-	X	-
pH	Daily Minimum	6.5	SU	-	-	Daily	Grab	-	X	-
	Daily Maximum	8.5	SU	-	-					
Temperature	Daily Maximum	Monitor	°F	-	-	Daily	Grab	-	X	-
BOD ₅	Monthly Average	30	mg/L	6.3	lbs/d	1/Month	Grab	X	X	1
BOD ₅	7-Day Average	45	mg/L	9.4	lbs/d	1/Month	Grab	-	X	-
Total Suspended Solids (TSS)	Monthly Average	30	mg/L	6.3	lbs/d	1/Month	Grab	X	X	1
Total Suspended Solids (TSS)	7-Day Average	45	mg/L	9.4	lbs/d	1/Month	Grab	-	X	-
Settleable Solids	Daily Maximum	0.1	mL/L	-	-	Daily	Grab	-	X	-
Total Phosphorus (as P)	Monthly Average	1.0	mg/L	-	lbs/d	1/Month	6-hr. Comp.	-	X	2
EFFLUENT DISINFECTION Required All Year		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Coliform, Fecal	30-Day Geometric Mean	200	No./100 mL	-	-	1/Month	Grab	-	X	-
Coliform, Fecal	7-Day Geometric Mean	400	No./100 mL	-	-	1/Month	Grab	-	X	-
Chlorine, Total Residual	Daily Maximum	0.03	mg/L	-	-	Daily	Grab	-	X	2,3

FOOTNOTES:

1. Effluent shall not exceed 15% and 15% of influent concentration values for BOD₅ & TSS respectively.
2. This is a final effluent limitation. See Schedule of Compliance for any applicable interim effluent limitations.
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.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
002	All Year	Unnamed Trib. to Little Dam Lake	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	20,000	GPD	-	-	Continuous	Recorder	-	X	-
pH	Daily Minimum	6.5	SU	-	-	Daily	Grab	-	X	-
	Daily Maximum	8.5	SU	-	-					
Temperature	Daily Maximum	Monitor	°F	-	-	Daily	Grab	-	X	-
BOD ₅ (June 1 to Oct. 31)	Daily Maximum	7.0	mg/L	1.17	lbs/d	1/Month	6-hr. Comp.	X	X	1
BOD ₅ (Nov. 1 to May 31)	Daily Maximum	16	mg/L	2.67	lbs/d	1/Month	6-hr. Comp.	X	X	1
Total Suspended Solids (TSS) (June 1 to Oct. 31)	Daily Maximum	10	mg/L	1.67	lbs/d	1/Month	6-hr. Comp.	X	X	1
Total Suspended Solids (TSS) (Nov. 1 to May 31)	Daily Maximum	16	mg/L	2.67	lbs/d	1/Month	6-hr. Comp.	X	X	1
Settleable Solids	Daily Maximum	0.1	mL/L	-	-	Daily	Grab	-	X	-
Dissolved Oxygen	Daily Minimum	7.0	mg/L	-	-	Daily	Grab	-	X	1
Ammonia (as N) (June 1 – October 31)	Monthly Average	1.24	mg/L	-	lbs/d	1/Month	6-hr. Comp.	-	X	1
Ammonia (as N) (November 1 – May 31)	Monthly Average	1.81	mg/L	-	-	1/Month	6-hr. Comp.	-	X	1
Total Phosphorus (as P)	Monthly Average	1.0	mg/L	-	lbs/d	1/Month	6-hr. Comp.	-	X	1
EFFLUENT DISINFECTION		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Required All Year										
Coliform, Fecal	30-Day Geometric Mean	200	No./100 mL	-	-	1/Month	Grab	-	X	-
Coliform, Fecal	7-Day Geometric Mean	400	No./100 mL	-	-	1/Month	Grab	-	X	-
Chlorine, Total Residual	Daily Maximum	0.03	mg/L	-	-	Daily	Grab	-	X	1,2

FOOTNOTES:

1. This is a final effluent limitation. See Schedule of Compliance for any applicable interim effluent limitations.
2. 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.

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 new discharge location.
- (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:

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

- (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.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall(s)	Compliance Action	Compliance Date ¹
001 & 002	INTERIM PROGRESS REPORTS Submit interim status reports on the progress related to meeting the specified final limits for Outfall 001 & Outfall 002.	EDPM + 9 months, and every 9 months thereafter
001	DESIGN DOCUMENTS The permittee shall submit approvable Design Documents including a Basis of Design Report (BODR), Plans, Specifications, and Construction Schedule for the implementation of proposed improvements necessary to meet the Total Residual Chlorine and Total Phosphorus limits. Department approval is subject to SEQR and other permits, as needed. BEGIN CONSTRUCTION The permittee shall begin construction of the treatment facilities in accordance with the Department approved schedule. COMPLETE CONSTRUCTION & COMMENCE OPERATION The permittee shall complete construction, commence operation of the system, and comply with the final effluent limitation for Total Residual Chlorine.	EDPM + 6 Months In Accordance with Approved Eng. Report EDPM + 30 Months
002	DESIGN DOCUMENTS The permittee shall submit approvable Design Documents including a Basis of Design Report (BODR), Plans, Specifications, and Construction Schedule for the implementation of proposed improvements necessary to meet final effluent limitations. Department approval is subject to SEQR and other permits, as needed. BEGIN CONSTRUCTION The permittee shall begin construction of the treatment facilities in accordance with the Department approved schedule. COMPLETE CONSTRUCTION & COMMENCE OPERATION The permittee shall complete construction, commence operation of the system, and comply with the final effluent limitations.	EDPM + 6 Months In Accordance with Approved Eng. Report EDPM + 60 Months

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

OUTFALL	PARAMETER	INTERIM EFFLUENT LIMIT					MONITORING REQUIREMENTS				Notes
		Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.		
001	Total Phosphorus	Monthly Avg	Monitor	mg/l	-	-	Monthly	Grab	-	X	-
001	Total Residual Chlorine	Daily Max.	0.5	mg/l	-	-	Daily	Grab	-	X	-
002	BOD ₅	30-day 7-day	30 45	mg/l mg/l	5 7.5	lbs/d lbs/d	Monthly	4-hr. comp	-	X	-
002	TSS	30-day 7-day	30 45	mg/l mg/l	5 7.5	lbs/d lbs/d	Monthly	4-hr. comp	-	X	-
002	Dissolved Oxygen	Daily Min.	Monitor	mg/l	-	-	Daily	Grab	-	X	-
002	Ammonia	Monthly Avg	Monitor	mg/l	-	-	Monthly	Grab	-	X	-
002	Total Phosphorus	Monthly Avg	Monitor	mg/L	-	-	Monthly	Grab	-	X	-
002	Total Residual Chlorine	Daily Max.	0.5	mg/l	-	-	Daily	Grab	-	X	-
Notes:	1. Interim limits expire upon startup of the modified WWTP + 30-days.										

¹ 6 NYCRR 750-1.14 (a)

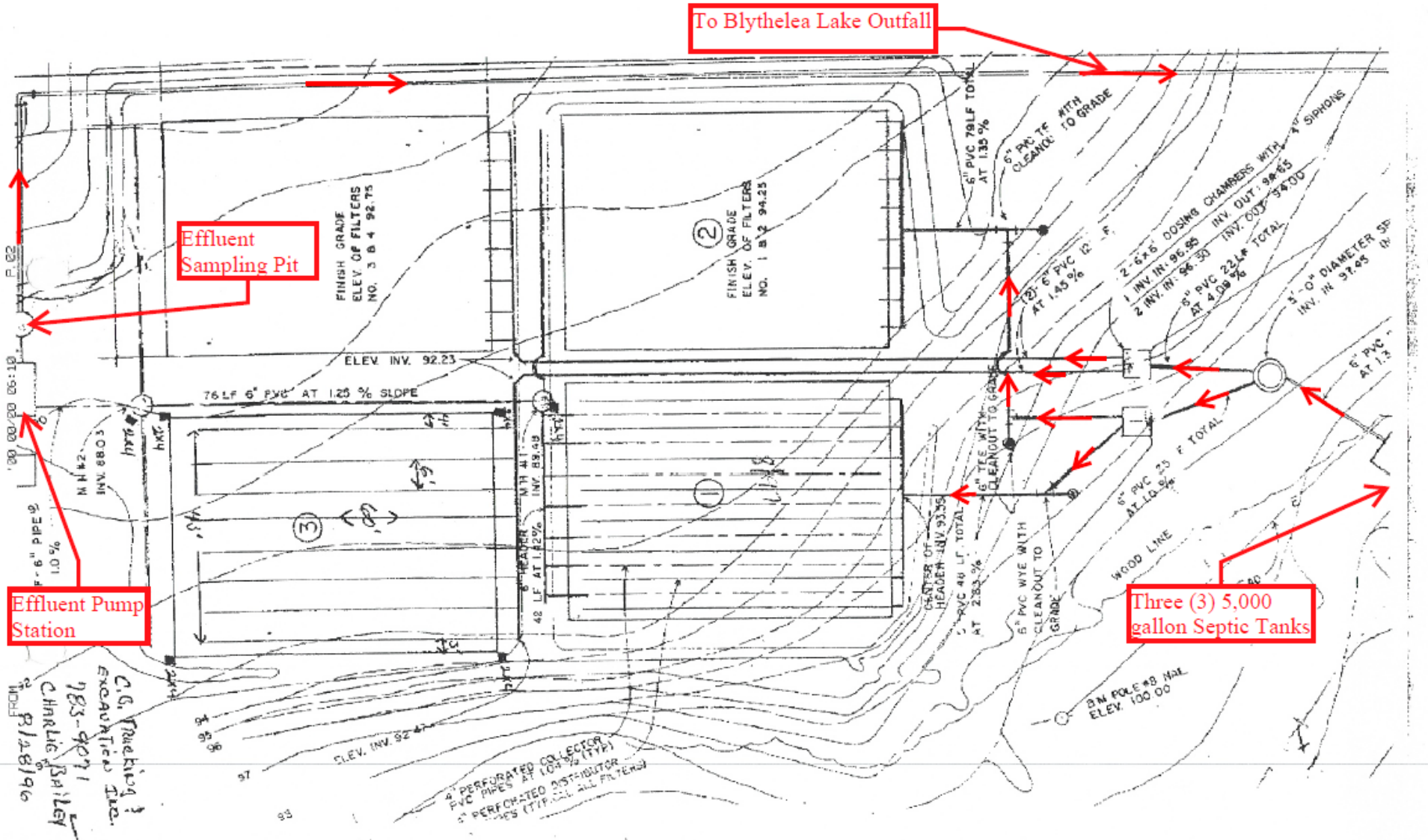
- b) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of 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.

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MONITORING LOCATIONS

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

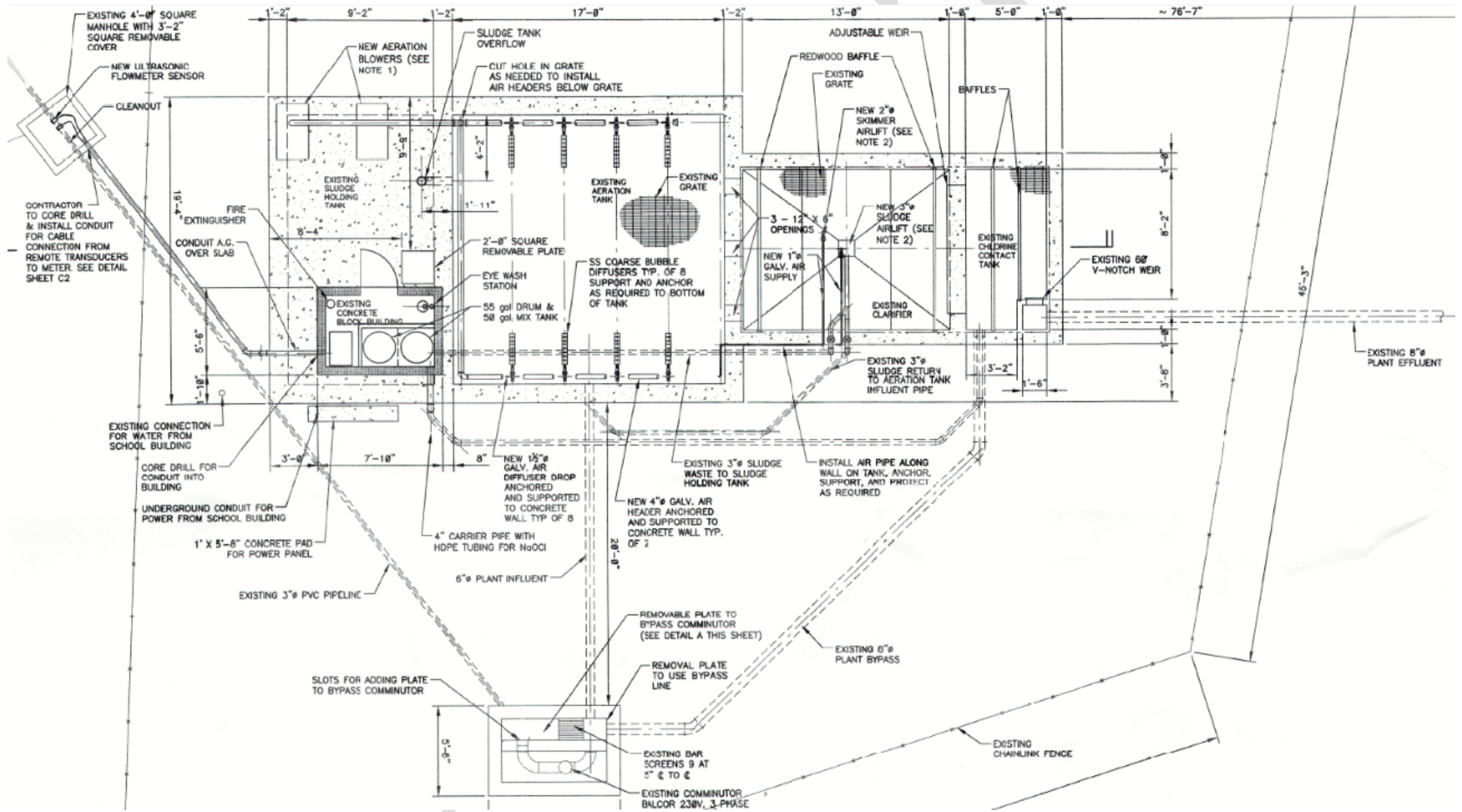
Outfall 001: St. Pat's Villa WWTP



MONITORING LOCATIONS

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

Outfall 002: Queen of Apostles WWTP



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 | 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) |
- 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.

GENERAL REQUIREMENTS (continued)

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

- 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. An annual report to the Regional Water Engineer at the address specified below. The annual report is due by February 1st each year and must summarize information for January to December of the previous year in a format acceptable to the Department.
- 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 3
220 White Plains Road, Suite 110, Tarrytown, New York, 10591 Phone: (914) 803-8157

D. 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:

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	Required Action	Due Date
001 & 002	<u>SHORT-TERM HIGH-INTENSITY MONITORING PROGRAM</u> The permittee shall collect 10 samples representative of normal discharge conditions and treatment operations over 3-months for Total Phosphorus. The permittee shall use approved EPA analytical method with the lowest possible detection limit as promulgated under 40CFR Part 136 for the determination of the concentrations of parameters listed. The permittee shall submit a summary of the results.	EDPM + 4 months

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

- E. 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.
- F. 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.
- G. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- H. 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.
- I. 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.

SPDES Permit Fact Sheet Sisters of the Catholic Apostolate (Pallottines)

St. Pat's Villas WWTP & Queen of Apostles WWTP

NY0145190



**Department of
Environmental
Conservation**

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Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) permit has been drafted for the St Pat's Villas WWTP & St. Pat's Villas WWTP. The changes to the permit are summarized below:

- The Queen of Apostles WWTP and the St. Pat's Villas WWTP were previously covered under separate SPDES permits, NY0096784 & NY0145190 respectively. Due to having the same owner and being located on the same parcel of land, the permits are being combined into this single SPDES Permit.
- The St. Pat's Villas WWTP is included as Outfall 001 and the Queen of Apostles WWTP is included as Outfall 002.
- Queen of Apostles WWTP was found to be discharging to an onsite wetland (MO-27) which is tributary to Little Dam Lake while the existing permit listed this outfall as discharging to Blythea Lake, a tributary to the Ramapo River. Due to this discrepancy a full technical review of the permit was conducted.
- New and Modified Permit Limits
 - pH limit for Outfall 001 (St. Pat's Villas WWTP) was changed to a range of 6.5-8.5
 - Total Residual Chlorine for Outfall 001 (St. Pat's Villas WWTP) was changed to a daily maximum of 0.03-mg/l
 - A new Total Phosphorus Limit of 1.0-mg/l has been added for Outfall 001 (St. Pat's Villas WWTP)
 - pH limit for Outfall 002 (Queen of Apostles WWTP) was changed to a range of 6.5-8.5
 - BOD5 for Outfall 002 (Queen of Apostles WWTP) was changed to a seasonal daily maximum of 7.0-mg/l and 1.17-lbs/d from June 1 to Oct. 31 and seasonal daily maximum of 16.0-mg/l and 2.67-lbs/day from Nov. 1 to May 31.
 - Total Suspended Solids (TSS) for Outfall 002 (Queen of Apostles WWTP) was changed to a seasonal daily maximum of 10-mg/l and 1.67-lbs/d from June 1 to Oct. 31 and a seasonal daily maximum of 16-mg/l and 2.67-lbs/d from Nov. 1 to May 31.
 - A new effluent limit for Outfall 002 (Queen of Apostles WWTP) for dissolved oxygen of a daily minimum of 7.0-mg/l was included
 - A new seasonal effluent limit for Outfall 002 (Queen of Apostles WWTP) for ammonia (as N) has been included. Ammonia limits from June 1 to October 31 are monthly average of 1.24-mg/l and ammonia limits from November 1 to May 31 are monthly average of 1.81-mg/l have been included
 - A new effluent limit for Outfall 002 (Queen of Apostles WWTP) for total phosphorus of a monthly average of 1.0-mg/l has been included
 - Total Residual Chlorine for Outfall 002 (Queen of Apostles WWTP) was changed to a daily maximum of 0.03-mg/l
- A Schedule of Compliance has been added to allow time for planning, design, and construction of any upgrades necessary to meet the water quality based effluent limits for outfalls 001 & 002.
- A Schedule of Additional Submittals has been added to include a Short-Term High Intensity Monitoring program for total phosphorus. The monitoring program requires 10 total phosphorus samples to be collected over a 3-month period and the results to be submitted to the Department.
- All permit sheets have been updated to their newest versions.

This factsheet 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 factsheet.

Administrative History

The last full technical review was performed for the Queen of Apostles WWTP in 1976 and for the St. Pat's Villas WWTP in 1982, at which time the SPDES permits became effective with new five-year terms and has formed the basis of this permit.

Both permits have been administratively renewed since original issuance and the current permit administrative renewal is effective until 5/31/2025 for the Queen of Apostles WWTP and until July 31, 2026 for the St. Pat's Villas WWTP.

1/31/2022 The Sisters of the Catholic Apostolate (Pallottines) submitted a request to modify the permit to account for proposed increased development on the existing property.

6/30/2022 The Sisters of the Catholic Apostolate (Pallottines) submitted a response to the Department's Notice of Incomplete Application and a timely and sufficient PCI form.

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

Facility Information

This facility is a private facility which receives flow from domestic users, with effluent consisting of domestic wastewater. Outfall 001 contains various existing users throughout the site including a maintenance garage and the Vincent Pallotti Center. There are plans to add proposed multifamily housing and townhouses to this portion of the site. Outfall 002 contains the existing convent building and is proposed to contain a new senior housing area. The collection system consists of separate sewers. The facility does not have any significant industrial users (SIUs).

The current 20,000-gpd Queen of Apostle treatment plant consists of:

- Preliminary Treatment: Influent Screening
- Secondary Treatment: Aeration, Settling
- Tertiary Treatment: Disinfection: Chlorine Disinfection

Sludge is hauled offsite for dewatering and disposal.

The current 25,000-gpd St. Pat's Villas treatment plant consists of:

- Preliminary Treatment: Three (3) 5,000-gallon septic Tanks
- Secondary Treatment: Four (4) Sand Filters
- Disinfection: Chlorine Disinfection
- Discharge: Effluent pump station with discharge to Blythea Lake

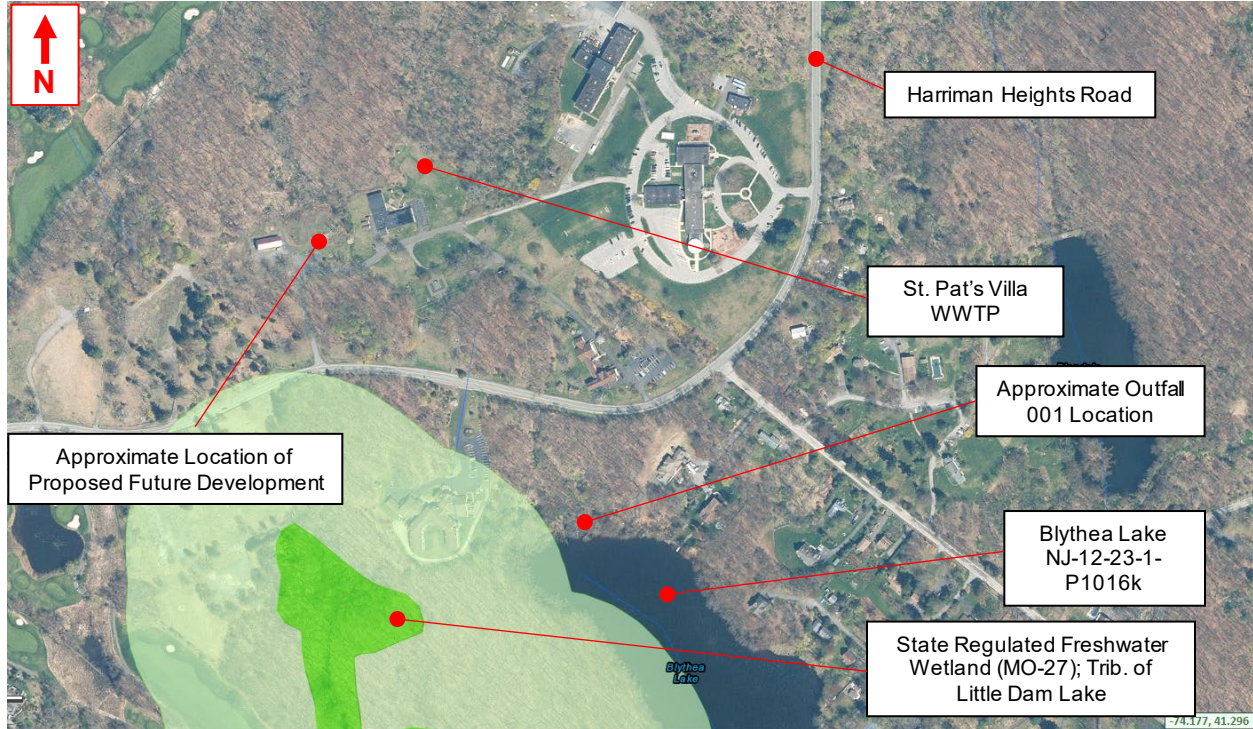
Sludge is hauled offsite for dewatering and disposal

The primary outfall (Outfall 001) is located to the south of Harriman Heights Road and discharges to NYS wetland MO-27 which is tributary to Arrow Farm Lake. Outfall 002 is also located to the south of Harriman Heights Road and discharges to Blythea Lake.

The facility does not have any planned improvements.

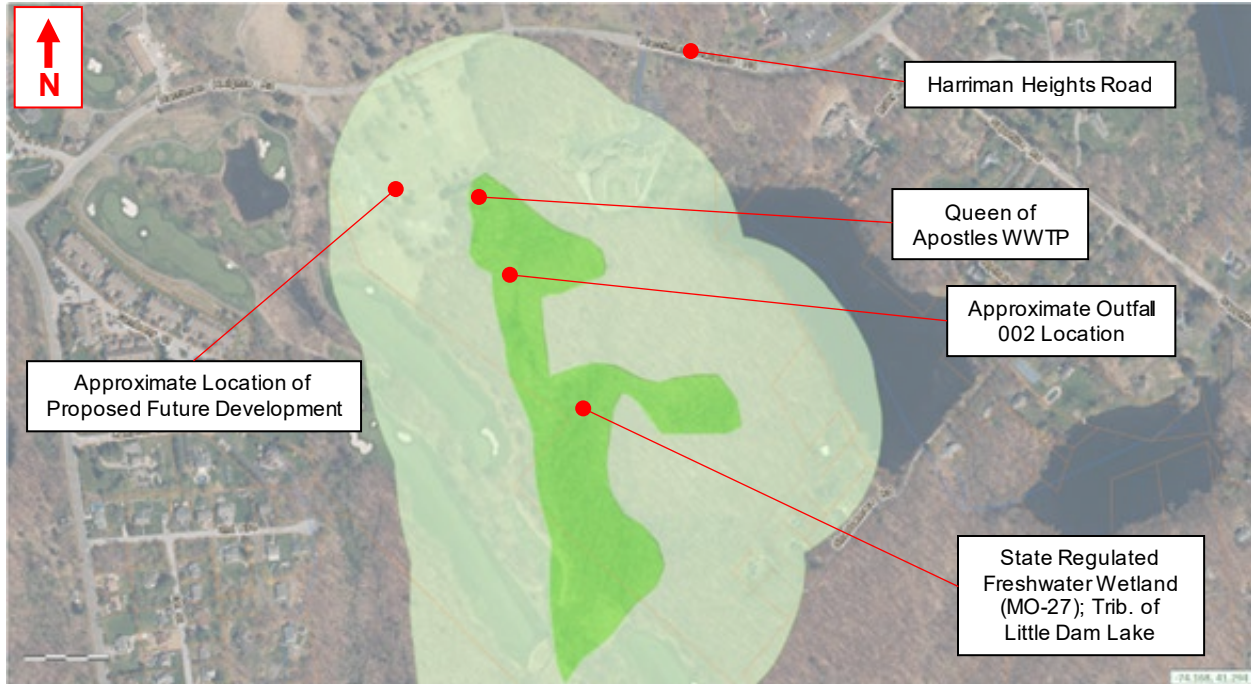
Site Overview

Outfall 001 – St. Pat's Villa WWTP



Outfall 002 – Queen of Apostles WWTP





Existing Effluent Quality

The [Pollutant Summary Table](#) presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from Monthly Operating Reports submitted by the permittee for the period December 2020 to August 2021. [Appendix Link](#)

Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001 – Existing St. Pat's Villas Outfall	8999	Treated Sanitary Sewage	Blythea Lake, NJ-12-23-1-P1016k
002 – Existing Queen of Apostles Outfall	8999	Treated Sanitary Sewage	Unnamed Trib. to Little Dam Lake, Trib of NJ-12-17-P1008-P1009a; Class B

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

Impaired Waterbody Information

Blythea Lake (PWL No. 1501-0059) 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. Due to water quality concerns regarding Blythea Lake, the Department has begun a sampling effort, starting in August 2023, to obtain ambient water quality data to better understand the existing conditions of the lake.

The unnamed trib. to Little Dam Lake segment (PWL No. 1501-0036) 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.

Critical Receiving Water Data & Mixing Zone

The Outfall-001 discharges to Blythea Lake, which is a classified ponded waterbody. Department guidance (TOGS 1.3.1) states that a dilution ration of 10:1 is appropriate for an outfall discharging directly into a ponded waterbody. The discharge terminus point for this outfall is at the shoreline (bank discharge) and therefore the effluent mixing with the ponded water will take place along the shoreline rather than the open waters of the lake. The mixing intensity will be reduced due to low momentum of the discharge resulting in less dilution than the specified guidance value. Therefore, a dilution ratio of 5:1 for acute, chronic and HEW protections is appropriate and has been included in this permit.

The Outfall-002 discharge is to an ISEL stream and therefore a dilution of 1:1 is applicable for acute, chronic and HEW protections.

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
001	5:1	5:1	5:1	BPJ
002	1:1	1:1	1:1	TOGS 1.3.1

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

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

The limitations contained in the permit are at least as stringent as the previous permit limits and there are no instances of backsliding. [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)¹ 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.

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

¹ As prescribed by 6 NYCRR Part 617

Schedule(s) of Compliance

A Schedule of Compliance is being included² for the following items ([Appendix Link](#)):

- Compliance period for attainment of final effluent limits for Total Residual Chlorine for Outfall 001.
 - A major modification to the treatment facility or operations may be needed and may take a significant amount of time to properly plan, design, fund, and construct
- Compliance period for attainment of final effluent limits for BOD5, TSS, Dissolved Oxygen, Ammonia, Total Phosphorus, and Total Residual Chlorine for Outfall 002.
 - A major modification to the treatment facility or operations may be needed and may take a significant amount of time to properly plan, design, fund, and construct
- Submittal of approvable engineering report and design documents with the details of the upgrades needed to comply with the final effluent limitations.
 - This is a new requirement and the permittee has had no time to meet the WQBEL under prior permits
- Construction milestones for the disinfection upgrade
 - This is a new requirement and the permittee cannot immediately comply with the WQBEL

² 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	41° 17' 34" N	74° 10' 09" W	Blythea Lake	C	NJ-12-23-1-P1016k PWL: 1501-0059	15 / 01	NA	-	-	-	25,000-gpd	5:1 BPJ		
002	41° 17' 31" N	74° 10' 22" W	Unnamed Trib. to Little Dam Lake	B	Trib of NJ-12-17-P1008-P1009a PWL: 1501-0036	15 / 01	NA	<0.1 CFS (Wetland)			20,000-gpd	1:1 TOGS 1.3.1		

POLLUTANT SUMMARY TABLE - OUTFALL 001

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ³	# 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		
Outfall #	001	Description of Wastewater: St. Pat's Villas WWTP - Treated Sanitary Wastewater													
		Type of Treatment: Septic tanks, intermittent sand filters, effluent pump station, discharge													
General Notes:	Existing discharge data from December 2020 to August 2021 was obtained from annual reports provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent.														
Flow Rate	GPD	Monthly Avg	25,000	7,480 Design Flow	Calculated	25,000	Existing Permit Limit	Narrative: No alterations that will impair the waters for their best usages.			703.2	-	TBEL		
Consistent with TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant is specified.															
pH	SU	Minimum	6.0	6.9	8	6.0	Existing Permit Limit	-	-	6.5 – 8.5	Range	6.5-8.5	703.3	-	WQBEL
		Maximum	9.0	7.5	8	9.0		Given that adequate dilution is not available, an effluent limit equal to the WQ Standard is appropriate.							
Temperature	°C	Daily Max	Monitor	68.9-deg F	8	-	-	-	Narrative (Lake): The water temperature at the surface of a lake shall not be raised more than 3F over the temperature that existed before the addition			704.2	-	Monitor	
		Consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions. This requirement is continued from the previous permit.													

³ 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 #	001	Description of Wastewater: St. Pat's Villas WWTP - Treated Sanitary Wastewater													
		Type of Treatment: Septic tanks, intermittent sand filters, effluent pump station, discharge													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ³	# 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 Biochemical Oxygen Demand (BOD ₅)	mg/L	Monthly Avg	30	26	1/1	30	TOGS 1.3.3	DO=4.0 mg/l (Surrogate Standard)				-	703.3	-	TBEL
		7 Day Avg	45	27	1/1	45	TOGS 1.3.3					-			
	lbs/d	Monthly Avg	6.3	-	-	6.3	Existing Permit Limit					-			
		7 Day Avg	9.4	-	-	9.4	Existing Permit Limit					-			
	% Rem	Minimum	85	-	-	85	Existing Permit Limit					-			
Since the discharge is to a lake, it is expected that the waste plume will be diluted as it travels to lake outlet. Therefore, secondary treatment level is acceptable															
Total Suspended Solids (TSS)	mg/L	Monthly Avg	30	1	0/2	30	TOGS 1.3.3	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.			703.2	-	TBEL	
		7 Day Avg	45	1	0/2	45	TOGS 1.3.3								
	lbs/d	Monthly Avg	6.3	-	-	6.3	Existing Permit Limit								
		7 Day Avg	9.4	-	-	9.4	Existing Permit Limit								
	% Rem	Minimum	85	-	-	85	Existing Permit Limit								
Since the discharge is to a lake, it is expected that the waste plume will be diluted as it travels to lake outlet. Therefore, secondary treatment level is acceptable															
Settleable Solids	mL/L	Daily Max	0.1	0.1	0/8	0.1	Existing Permit Limit	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages			703.2	-	TBEL	
		Consistent with TOGS 1.3.3 the effluent limitation is equal to the TBEL of 0.1 mL/L for POTWs providing secondary treatment and filtration. Given that adequate dilution is available the TBEL is reasonably protective of the WQS.													
Coliform, Fecal	#/100 ml	30d Geo Mean	200	38	4/4	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	40	4/4	400	TOGS 1.3.3	-							
	Consistent with TOGS 1.3.3, effluent disinfection is required year-round due to the class of the receiving waterbody. Fecal coliform effluent limitations equal to the TBEL are specified.														

Permittee: Sisters of the Catholic Apostolate (Pallottines)

Date: May 17, 2023 v.1.11

Facility: St. Pat's Villas WWTP

Permit Writer: Ryan O'Mara

SPDES Number: NY0145190

Water Quality Reviewer: Aslam Mirza

USEPA Non-Major/Class 02 PCI

Full Technical Review

Outfall #	001	Description of Wastewater: St. Pat's Villas WWTP - Treated Sanitary Wastewater													
		Type of Treatment: Septic tanks, intermittent sand filters, effluent pump station, discharge													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ³	# 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	Daily Max	0.5	0.3	8/0	2.0	TOGS 1.3.3	-	0.005	0.005	Chronic	0.025 (Daily Max)	703.5	0.03	ML
Effluent disinfection is currently required year-round and will remain a permit requirement. Due to low dilution (5:1), the calculated WQBEL is less than the TBEL and minimum level of detection. Therefore, an effluent limit equal to the minimum level of detection of 0.030 mg/l is appropriate.															
Total Phosphorus	mg/l	Monthly Avg	-	-	-	-	-	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages			1.0	TOGS 1.3.6	-	WQBEL	
Per TOGS 1.3.6, for facilities discharging over 10,000 gpd to a lake watershed, a limit of 1.0 mg/l of total phosphorus is applicable.															

POLLUTANT SUMMARY TABLE - OUTFALL 002

Outfall #	002	Description of Wastewater: Queen of Apostles WWTP-Treated Sanitary Wastewater													
		Type of Treatment: influent screening/comminution, extended aeration, settling, chlorine contact, discharge													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ⁴	# 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		
General Notes: Existing discharge data from December 2020 to August 2021 was obtained from annual reports provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent.															
Flow Rate	GPD	Monthly Avg	20,000	4,530 Design Flow	Calculated	20,000	Existing Permit Limit	Narrative: No alterations that will impair the waters for their best usages.				703.2	-	TBEL	
Consistent with TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant is specified.															
pH	SU	Minimum	6.0	6.8	10	6.0	Existing Permit Limit	-	-	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	WQBEL
		Maximum	9.0	8.2	10	9.0									
Given that adequate dilution is not available, an effluent limitation equal to the WQS is appropriate.															

⁴ 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 #	002	Description of Wastewater: Queen of Apostles WWTP-Treated Sanitary Wastewater														
		Type of Treatment: influent screening/comminution, extended aeration, settling, chlorine contact, discharge														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality ⁴	# 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			
Temperature	°C	Daily Max	Monitor	72.4-deg F	10	-	-	Narrative (Non-Trout): 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						704.2	-	Monitor
								Consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions. This requirement is continued from the previous permit.								
5-day Biochemical Oxygen Demand (BOD ₅) June 1 – Oct. 31	mg/L	Monthly Avg	30	9.8	3/5	30	TOGS 1.3.3	DO=4.0 mg/l (Surrogate Standard)				703.3	-	WQBEL	7.0 (DM)	
		7 Day Avg	45	10.8	3/5	45	TOGS 1.3.3								1.17 (DM)	
	lbs/d	Monthly Avg	5	-	-	5	Existing Permit Limit								-	
		7 Day Avg	7.5	-	-	7.5	Existing Permit Limit								-	
	% Rem	Minimum	85	-	-	85	Existing Permit Limit								-	
The WQ model using Streeter and Philips equation was developed. The model kinetics for Kd and Kr (decay and re-aeration coefficients) were assigned using best professional judgement. The model results indicated that a WQBEL of 7.0 mg/l is applicable. The effluent DO of 7.0 mg/l as daily minimum is required for complying with the water quality standard of 4.0 mg/l.																
5-day Biochemical Oxygen Demand (BOD ₅) Nov 1 – May 31	mg/l	Daily Max	-	-	-	-	-	DO=4.0 mg/l (Surrogate Standard)				703.3	-	WQBEL	16.0 (DM)	
	lbs/d	Daily Max	-	-	-	-	-								2.67 (DM)	
The WQ model using Streeter and Philips equation was developed. The model kinetics for Kd and Kr (decay and re-aeration coefficients) were assigned using best professional judgement. The model results indicated that a WQBEL of 16.0 mg/l is applicable. The effluent DO of 7.0 mg/l as daily minimum is required for complying with the water quality standard of 4.0 mg/l.																
Total Suspended Solids (TSS) June 1 – Oct. 31	mg/L	Monthly Avg	30	19.4	8/0	30	TOGS 1.3.3	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.				TOGS 1.3.1	-	WQBEL	10.0 (DM)	
		7 Day Avg	45	20.7	8/0	45	TOGS 1.3.3								1.67 (DM)	
	lbs/d	Monthly Avg	5	-	-	5	Existing Permit Limit								-	
		7 Day Avg	7.5	-	-	7.5	Existing Permit Limit								-	
	% Rem	Minimum	85	-	-	85	Existing Permit Limit								-	
Given that adequate dilution is not available an effluent limitation equal to 10 mg/L daily maximum is appropriate and consistent with TOGS 1.3.1 for discharges to intermittent streams.																

Outfall #	002	Description of Wastewater: Queen of Apostles WWTP-Treated Sanitary Wastewater															
		Type of Treatment: influent screening/comminution, extended aeration, settling, chlorine contact, discharge															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement		
			Permit Limit	Existing Effluent Quality ⁴	# 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 Suspended Solids (TSS) Nov 1 – May 31	mg/l	Daily Max	-	-	-	-	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.						16.0 (DM)	703.2	-	WQBEL
	lbs/d	Daily Max	-	-	-	-	-							2.67 (DM)			
	An effluent limit equal to the BOD5 level is suggested since the SS contribute to the noted BOD5 level.																
Settleable Solids	mL/L	Daily Max	0.1	0.1	0/8	0.1	Existing Permit Limit	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages						703.2	-	TBEL	
			Consistent with TOGS 1.2.1 Attachment C, the TBEL is reflective of the treatment technology and is reasonably protective of the WQS.														
Coliform, Fecal	#/100 ml	30d Geo Mean	200	103	4/4	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	484	4/4	400	TOGS 1.3.3										
	Consistent with TOGS 1.3.3, effluent disinfection is required year-round due to the class of the receiving waterbody. Fecal coliform effluent limitations equal to the TBEL are specified.																
-Total Residual Chlorine (TRC)	mg/L	Daily Max	0.5	0.4	8/0	0.5	Existing Permit Limit	-	0.005	0.005	A(C)	0.005 (DM)	703.5	0.03	ML		
			Effluent disinfection is currently required year-round and will remain a permit requirement. Due to the low dilution, the calculated WQBEL is less than the TBEL and less than the minimum level of detection. Therefore, an effluent limitation equal to the minimum level of detection of 0.030 mg/L is appropriate.														
Dissolved Oxygen	mg/l	Daily Min	-	-	-	-	-	-	4.0	4.0	A(C)	Min 7.0	703.3	-	WQBEL		
			The discharge is to a wetland and at the headwater of un-named tributary. The receiving water is determined to be "intermittent" and therefore, minimum DO level of 7.0 is recommended per TOGS 1.3.1.														
Ammonia, as N June 1 – Oct 31	mg/l	Monthly Avg	-	-	-	-	-	-	1.24	1.24	A(C)	1.24 (MA)	703.5	-	WQBEL		
			Due to lack of dilution, an effluent limit equal to water quality standard is applicable. The WQ standard for ammonia was developed using a default pH of 7.5 and Summer temperature of 25°C per TOGS 1.3.1.														
Ammonia, as N Nov 1 – May 31	mg/l	Monthly Avg	-	-	-	-	-	-	1.81	1.81	A(C)	1.81 (MA)	703.5	-	WQBEL		
			Due to lack of dilution, an effluent limit equal to water quality standard is applicable. The WQ standard for ammonia was developed using a default pH of 7.5 and Winter temperature of 15°C per TOGS 1.3.1.														

Permittee: Sisters of the Catholic Apostolate (Pallottines)

Date: May 17, 2023 v.1.11

Facility: St. Pat's Villas WWTP

Permit Writer: Ryan O'Mara

SPDES Number: NY0145190

Water Quality Reviewer: Aslam Mirza

USEPA Non-Major/Class 02 PCI

Full Technical Review

Outfall #	002	Description of Wastewater: Queen of Apostles WWTP-Treated Sanitary Wastewater													
		Type of Treatment: influent screening/comminution, extended aeration, settling, chlorine contact, discharge													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ⁴	# 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 Phosphorus	mg/l							Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages				1.0	TOGS 1.3.6	-	WQBEL
Per TOGS 1.3.6, for facilities discharging over 10,000 gpd to a lake watershed, a limit of 1.0 mg/l of total phosphorus is applicable.															

Appendix: Regulatory and Technical Basis of Permit Authorizations

The Appendix is meant to supplement the factsheet 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 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 (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

Impaired Waters

The [NYS 303\(d\) List of Impaired/TMDL Waters](#) identifies waters where specific best usages are not fully supported. The state must consider the development of a Total Maximum Daily Load (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 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 to

determine the existing capabilities of the wastewater treatment plants and to assure that wasteload allocations (WLAs) are allocated equitably.

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 95th (monthly average) and 99th (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 factsheet. Consistent with current case law⁵ and USEPA interpretation⁶ 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 quality criteria to occur, water quality-based effluent limitations (WQBELs) are developed. A WQBEL is designed

⁵ American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

⁶ 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)

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. 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 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 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 (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.

A Watershed Maximum Daily Load (WMDL) may be developed by the Department to account for the cumulative effect of multiple discharges of conservative toxic pollutants to ensure water quality standards are met in downstream segments. The WMDL uses a simple dilution model, assuming full mix in the receiving stream, to calculate the maximum allowable pollutant load that can be discharged and still meet water quality standards during critical low flow in downstream segments such as those with sensitive receptors (e.g. public water supply) or higher water classification. WQBELs are established to ensure that the cumulative mass load from point source discharges does not exceed the maximum allowable load to ensure permit limits are protective of water quality.

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

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.