



Department of
Environmental
Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	8999	NAICS Code:	531120	SPDES Number:	NY0259837
Discharge Class (CL):	02			DEC Number:	3-3728-00103/00003
Toxic Class (TX):	N			Effective Date (EDP):	EDP
Major-Sub Drainage Basin:	13 - 01			Expiration Date (ExDP):	ExDP
Water Index Number:	H-55-18-2	Item No.:	864 - 633	Modification Dates (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:	64 Pudding Street, LLC			Attention:	Michael Ryan, President
Street:	3005 East Main Street				
City:	Cortlandt Manor			State:	NY
				Zip Code:	10567-2689
Email:	michaelfxryan@gmail.com			Phone:	(914) 739-0002

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL									
Name:	64 Pudding Street, LLC								
Address / Location:	64 Pudding Street					County:	Putnam		
City:	Putnam Valley				State:	NY	Zip Code:	10579-1332	
Facility Location:	Latitude:	41 °	25 '	51 " N	& Longitude:	73 °	48 '	16 " W	
Primary Outfall No.:	001	Latitude:	41 °	25 '	50 " N	& Longitude:	73 °	48 '	16 " W
Outfall Description:	Treated Sanitary	Receiving Water:	Tributary of Roaring Brook				Class:	C	Standard: C

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

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

DISTRIBUTION:

R3 Permit Coordinator
R3 Permit Writer
RWE
RPA

Permit Administrator:	
Address:	
Signature	Date

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 DEC 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 DEC.
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	Tributary of Roaring Brook	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	1,200	GPD			Instantaneous	Estimate	X		
pH	Daily Minimum	6.5	SU			Weekly	Grab		X	1
	Daily Maximum	8.5	SU							
Temperature	Daily Maximum	Monitor	°F			Weekly	Grab		X	
BOD ₅ June 1 st – October 31 st	Daily Maximum	12	mg/L	0.12	lbs/d	Quarterly	Grab	X	X	1, 2, 3
BOD ₅ November 1 st – May 31 st	Daily Maximum	20	mg/L	0.20	lbs/d	Quarterly	Grab	X	X	2, 3
Total Suspended Solids (TSS)	Daily Maximum	20	mg/L	0.20	lbs/d	Quarterly	Grab	X	X	2, 3
Settleable Solids	Daily Maximum	0.3	mL/L			Weekly	Grab		X	
Dissolved Oxygen	Daily Minimum	7.0	mg/L			Quarterly	Grab		X	1, 3
Ammonia (as N) June 1 st – October 31 st	Monthly Average	0.41	mg/L			Quarterly	Grab		X	1, 3
Ammonia (as N) November 1 st – May 31 st	Monthly Average	0.56	mg/L			Quarterly	Grab		X	1, 3
Total Phosphorus (as P)	Monthly Average	1.0	mg/L			Quarterly	Grab		X	1, 3
EFFLUENT DISINFECTION		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Required Seasonal from May 1st - October 31st										
Coliform, Fecal	30-Day Geometric Mean	200	No./100 mL			Quarterly	Grab		X	4
Coliform, Fecal	7-Day Geometric Mean	400	No./100 mL			Quarterly	Grab		X	4
Chlorine, Total Residual	Daily Maximum	0.03	mg/L			Weekly	Grab		X	1, 5, 6

FOOTNOTES:

1. This is a final effluent limitation. See Schedule of Compliance for any applicable interim effluent limitations.
2. Effluent shall not exceed 15% and 15% of influent concentration values for BOD₅ & TSS respectively.
3. Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st; Q2 – April 1st to June 30th; Q3 – July 1st to September 30th; Q4 – October 1st to December 31st).
4. For quarterly sampling, collect two samples from May 1st – July 31st and two samples from August 1st – October 31st.
5. 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.
6. This is a Compliance Level. The calculated WQBEL is 0.005 mg/L.

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:

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY_____

OUTFALL No.: _____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

Permittee Phone: () - ### - #####

OR:

NYSDEC Division of Water Regional Office Address:

NYSDEC Division of Water Regional Phone: () - ### - #####

- (e) The permittee shall provide for public review at the business office repository of the permittee or at the off-premises location of its choice, provided the custodian of the off-premise location grants written permission, (such off-premise location shall be the village, town, city or county clerk's office, local library or other location accessible by the public) all the Discharge Monitoring Reports (DMR) prepared by the permittee to demonstrate compliance with the SPDES permit conditions. A copy of each DMR shall be placed on file at such location at the same time it is sent to the department, or within 60 days of preparation for DMRs not required to be submitted to the Department. 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	DESIGN DOCUMENTS The permittee shall submit approvable ² 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) for <i>pH, BOD₅, Dissolved Oxygen, Ammonia (as N), Total Phosphorus (as P), and Total Residual Chlorine.</i>	EDP + 2 Years
001	COMPLETE CONSTRUCTION The permittee shall provide a Construction Completion Certification ³ to the DEC (send to the Regional Water Engineer) that the disposal system has been fully completed in accordance with the approved Design Documents.	EDP + 5 Years
001	COMMENCE OPERATION Following receipt of DEC acceptance of the Construction Completion Certification, the permittee shall comply with the final effluent limitation(s) described in this permit for <i>pH, BOD₅, Dissolved Oxygen, Ammonia (as N), Total Phosphorus (as P), and Total Residual Chlorine.</i>	Upon Department Acceptance
Unless noted otherwise, the above actions are one-time requirements.		
See next page for Interim Effluent Limits.		

¹ 6 NYCRR 750-1.14 (a)

² 6 NYCRR 750 1.2 (a)(8)

³ 6 NYCRR 750-2.10 (c)

SCHEDULE OF COMPLIANCE – Interim Effluent Limits

OUTFALL	EXPIRING
001	See Note 1

PARAMETER	INTERIM EFFLUENT LIMIT					MONITORING REQUIREMENTS				Notes
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
pH	Daily Minimum	6.0	SU			Daily	Grab	-	X	
	Daily Maximum	9.0	SU							
BOD ₅ June 1 st – October 31 st	Monthly Average	20	mg/L	0.2	lbs/d	Quarterly	Grab	X	X	2, 3
Ammonia (as N)	Monthly Average	Monitor	mg/L			Quarterly	Grab	-	X	3
Chlorine, Total Residual	Daily Maximum	0.1	mg/L			Daily	Grab	-	X	

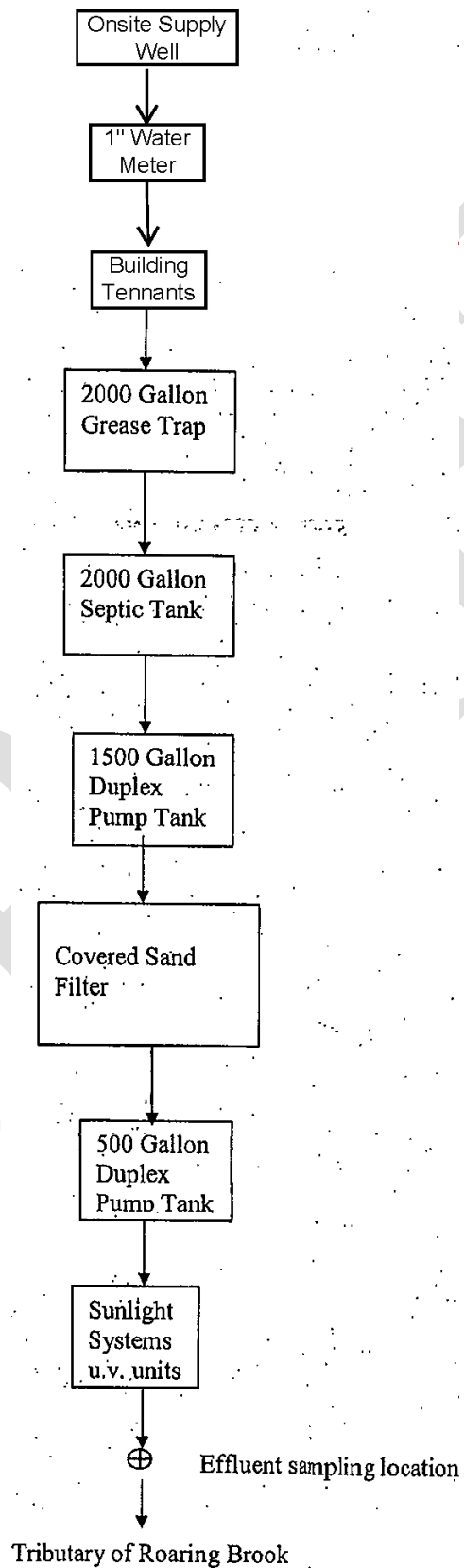
Notes:

1. Upon Department Acceptance of the Construction Completion Certification.
2. Effluent shall not exceed 15% and 15% of influent concentration values for BOD₅ & TSS respectively
3. Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st; Q2 – April 1st to June 30th; Q3 – July 1st to September 30th; Q4 – October 1st to December 31st).

- b) The permittee shall submit a [Report of Non-Compliance Event](#) form 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 DEC Regional Water Engineer and to the Bureau of Water Permits.

MONITORING LOCATIONS

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



GENERAL REQUIREMENTS

- A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through I as follows:
- B. General Conditions
- | | |
|--|---|
| 1. Duty to comply | 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)(98) & 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. In accordance with 6 NYCRR 750-2.7, the permittee shall give notice to the DEC at least 45 days prior to 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 DEC, 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 series.

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 DEC, 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 DEC review and authorization. At a minimum, the permittee must notify the DEC in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The DEC will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed under the current permit. 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 DEC. 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 DEC.
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 DEC'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 DEC or its designated agent.
- B. Annual SPDES Monitoring Reports: An annual report shall be submitted to DEC by February 1st each year. The report shall summarize information for January to December of the previous year and shall be submitted electronically, or in hardcopy format, utilizing the SPDES Annual Report Form available on the DEC's website.

Electronic copy submission of the Annual Report shall be submitted to the Regional Water Engineer at the address below:

Department of Environmental Conservation
Regional Water Engineer, Region 3
220 White Plains Road, Suite 110
Tarrytown, NY 10591-5892

Phone: (914) 803-8157
Email: dow.r3@dec.ny.gov

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

Permittee: 64 Pudding Street, LLC
Facility: 64 Pudding Street, LLC
SPDES Number: NY0259837
USEPA Non-Major/Class 02 PCI

Date: v.1.41
Permit Writer: H. Joe Fung
Water Quality Reviewer: Aslam Mirza
Full Technical Review

SPDES Permit Fact Sheet

64 Pudding Street, LLC

64 Pudding Street, LLC

NY0259837



**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 64 Pudding Street, LLC. The changes to the permit are summarized below:

- Updated permit format, definitions, discharge notification requirements, monitoring locations, and recording, reporting and additional monitoring requirements
- Added NAICS Code & Receiving Water Item No.
- Updated permittee name and address & facility name, address, and primary outfall information
- Changed sample type for Flow from Meter to Estimate to better reflect reporting water usage data for Flow
- Changed pH effluent limits from 6.0 – 9.0 to 6.5 – 8.5 as per the WQBEL
- Added requirement for weekly monitoring of effluent Temperature daily maximum to assess compliance with the water quality standard, in accordance with 6 NYCRR 750-1.13(a).
- Changed effluent limit type of BOD₅ and TSS from Monthly Average to Daily Maximum as per ISEL according to TOGS 1.3.1
- Reduced summer BOD₅ effluent limit from 20 mg/L and 0.2 lbs/d to the WQBELs of 12 mg/L and 0.12 lbs/d
- Changed the sample frequency of BOD₅, TSS, Ammonia (as N), and Fecal Coliform from 2/year to Quarterly per BPJ
- Changed the effluent limit for Settleable Solids from 0.1 mL/L to a less stringent effluent limit of 0.3 mL/L as per TOGS 1.3.3 because the septic tank/sand filter treatment system is not equivalent to a secondary treatment system with filtration
- Changed monthly sample frequency of Settleable Solids from 1/Month to Weekly as per BPJ
- Changed Ammonia (as N) effluent limit from Monitor to 0.41 mg/L in the summer and 0.56 in the winter per the WQBEL
- Added monthly average Total Phosphorus (as P) effluent limit of 1.0 mg/L because Pond (H-55-P 169), used as the water supply for City of Peekskill, is downstream of the discharge
- Changed Total Residual Chlorine effluent limit from 0.1 mg/L to the minimal level of 0.03 mg/L because the WQBEL is less than the minimum level of detection
- Added a Schedule of Compliance and Interim Effluent Limits for achieving the final pH, BOD₅, Total Suspended Solids, Dissolved Oxygen, Ammonia (as N), Total Phosphorus (as P), and Total Residual Chlorine effluent limit(s)
- Added general conditions
- Changed reporting requirements to just submitting annual report to Regional Water Engineer and removed monthly submission of Wastewater Facility Operating Report to County Health Department

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

2/1/2010 The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 1/31/2015. The 2010 permit has formed the basis of this permit.

1/31/2015 The SPDES permit expired.

12/27/2025 The 64 Pudding Street, LLC submitted a new PCI form to renew the expired permit.

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 that receives flow from domestic users, with effluent consisting of treated sanitary sewage. The collection system consists of separate sewers. The facility does not have any significant industrial users (SIUs).

The current 1,200 GPD treatment plant consists of:

- Grease Trap
- Septic Tank
- Sand Filtration
- UV Disinfection

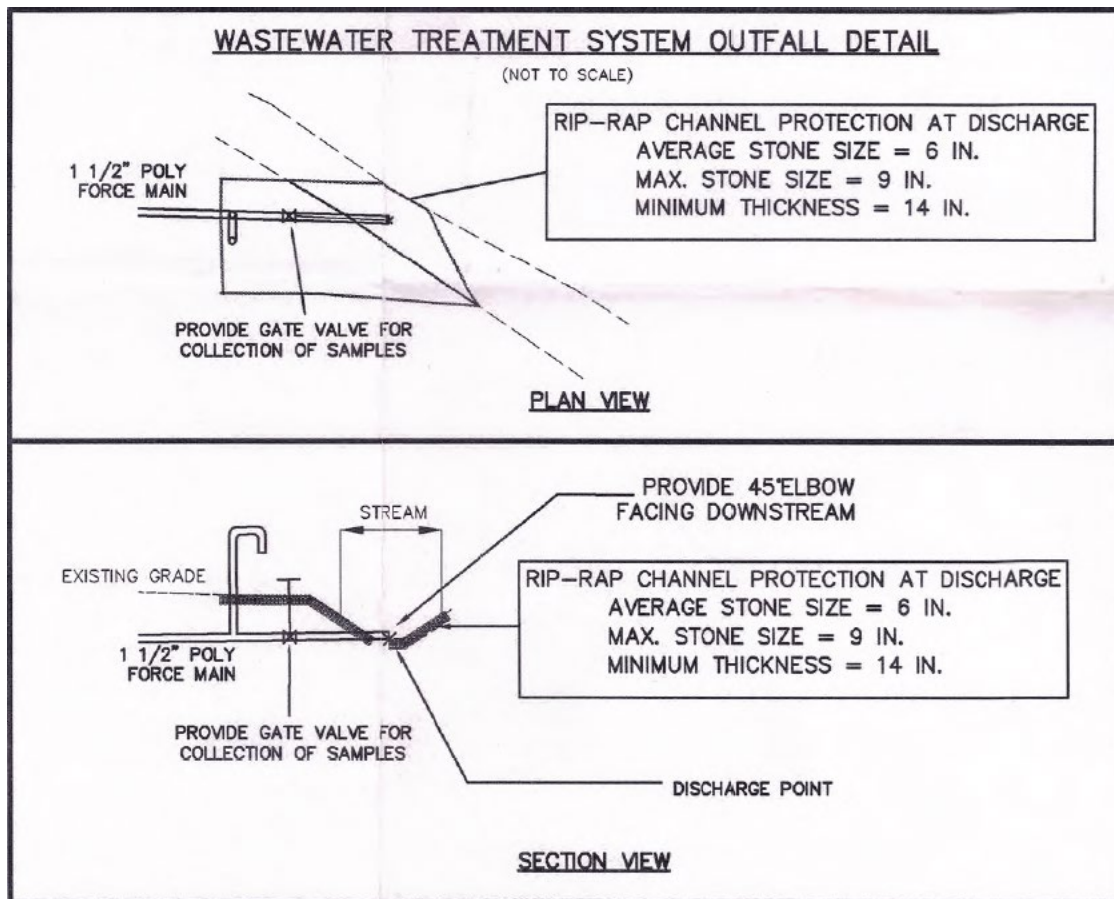
Septage is hauled and disposed of off-site.

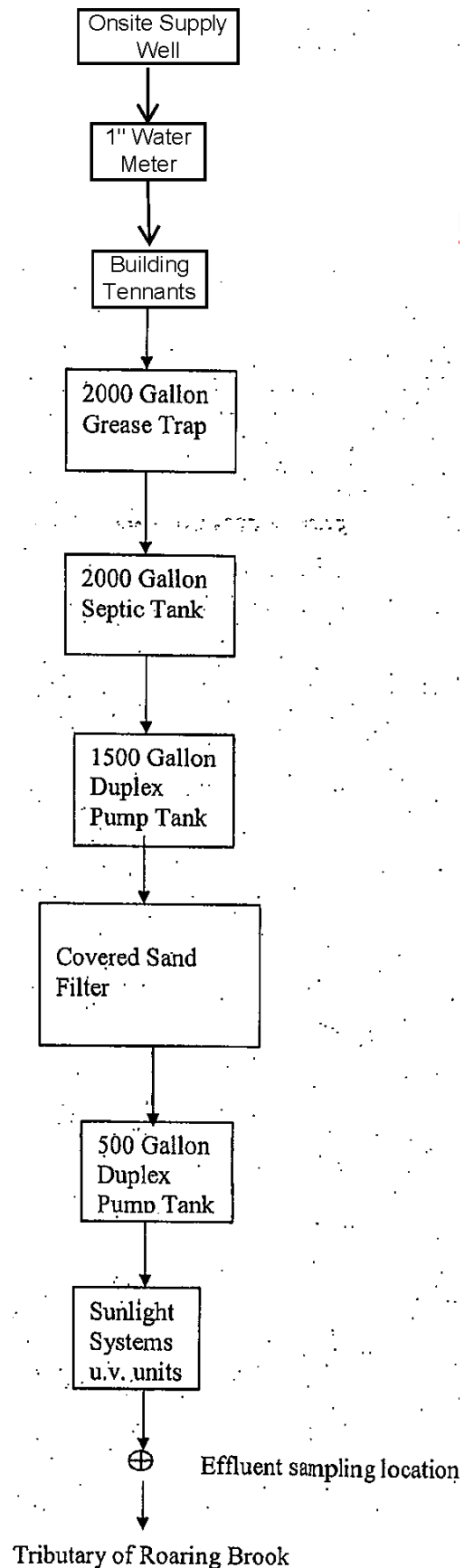
The primary outfall (Outfall 001) is a 1.5-inch diameter pipe with an open end that extends and discharges into the waterbody.

The facility does not have any planned improvements.

Site Overview







Additional Site-Specific Concerns

The discharge is upstream of and within the lake watershed of Pond (H-55-P 169) used as the water supply for City of Peekskill.

Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	8999	Treated Sanitary Sewage	Tributary of Roaring Brook, Class C

Impaired Waterbody Information

The Tributary of Roaring Brook segment (PWL No. 1301-0139) is not listed on the 2020/2022 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters. As such, a TMDL has not been developed and therefore, there are no applicable wasteload allocations (WLAs) for this facility.

Reach Description, Receiving Water Hydrology, Water Quality Model, Major Findings, and Dilution

Reach Description: The discharge is almost at the headwaters of the tributary of Roaring Brook with a drainage area of 0.23 square miles. There are no USGS gage and RIBS stations within the stream basin and no other discharge which could influence the waste allocation of the stream.

Due to the small drainage area, the stream will be considered intermittent. Therefore, effluent limits for toxics, such as pH, ammonia and total residual chlorine equal to the applicable water standard are applicable consistent with TOGS 1.3.1.

However, for conventional pollutants, i.e., 5-day Biochemical Oxygen Demand (BOD₅), nitrogenous oxygen demand (NOD) of ammonia and suspended solids, a 4-Reach water quality model (WQM) was developed to ensure if the current effluents are still applicable. The WQ model spans over approximately 1.3 miles (includes small tributary and Roaring Brook). The slope of the tributary and the Roaring Brook changes from mild (0.0054 ft/ft) (mild slope) to mildly steep (0.164 ft/ft) and provides good reaeration coefficient for the oxidation of oxygen demanding pollutants. The dissolved oxygen recovery is fast after the critical dissolved oxygen low point of 4.1 mg/l to 6.25 mg/l (at mile-points: 0.71 and 1.31, respectively).

The WQ model indicated that more stringent effluent limits are required than the current limits. The revised effluent limits are indicated in the fact sheet.

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

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 has not been included in the permit. [Appendix Link](#)

Anti-backsliding

Effluent limitations for Settable Solids are less stringent because, consistent with 40 CFR Part 133.102 and TOGS 1.3.3 for POTWs, the treatment at this facility are septic tanks and sand filter, 0.3 mL/L limitation is adequate since the system is not equivalent to a secondary treatment system with filtration. Backsliding is allowed for Settable Solids under 6 NYCRR Part 750-1.10(c)(2)(ii) "the department determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under this Part." [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.

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 has been 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 has been continued from the previous permit.

Schedule of Compliance

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

- Compliance period for attainment of final effluent limits at Outfall 001 for pH, BOD₅, Total Suspended Solids, Ammonia (as N), and Total Residual Chlorine. The limit was reduced and a major modification to the treatment facility or operations may be needed and will take a significant amount of time to properly plan, design, fund, and build.
- Submittal of approvable engineering design documents, including a basis of design report, with the details of the upgrades needed to comply with the final effluent limitations. The effluent limitation for Dissolved Oxygen and Total Phosphorus (as P) at Outfall 001 is a new requirement and the permittee cannot immediately comply with the final effluent limitations.

¹ As prescribed by 6 NYCRR Part 617

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 (GPD)	Dilution Ratio		
												A(A)	A(C)	HEW
001	41° 25' 50" N	73° 48' 16" W	Tributary of Roaring Brook	C Std: C	H-55-18-2 PWL: 1301-0139	13/01	-	Intermittent Stream			1,200	1:1		

POLLUTANT SUMMARY TABLE

Outfall 001

Outfall #	001	Description of Wastewater: Treated Sanitary Sewage													
		Type of Treatment: Grease Trap, Septic Tank, Sand Filtration, and 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 ³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
General Notes: 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	1,200	- Actual Average	-	1,200	Design Flow	No alterations that will impair the waters for their best usages.					703.2	-	Design Flow
				Consistent with 40 CFR Part 133.102 and TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant has been specified.											
pH	SU	Minimum	6.0	- Actual Min	-	6.0	TOGS 1.3.3	-	-	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	WQBEL
		Maximum	9.0	- Actual Max	-	9.0									
	Consistent with TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. In absence of dilution, an effluent limitation equal to the WQS is appropriate.														
Temperature	°F	Daily Max	-	- Actual Max	-	Monitor	750-1.13 Monitor	-	(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	
				Given that this outfall discharges to the surface, temperature monitoring has been added to assess compliance with the water quality standard, in accordance with 6 NYCRR 750-1.13(a).											

³ Existing Effluent Quality: Unless otherwise stated, 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)

Permittee: 64 Pudding Street, LLC
 Facility: 64 Pudding Street, LLC
 SPDES Number: NY0259837
 USEPA Non-Major/Class 02 PCI

Date: v.1.41
 Permit Writer: H. Joe Fung
 Water Quality Reviewer: Aslam Mirza
 Full Technical Review

Outfall #	001	Description of Wastewater: Treated Sanitary Sewage													
		Type of Treatment: Grease Trap, Septic Tank, Sand Filtration, and 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 ³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
5-day Biochemical Oxygen Demand	mg/L	Daily Max	20 Monthly Avg	-	- / -	30 Monthly Avg	ECL 17-0509	-	Dissolved Oxygen= 4.0 mg/l Surrogate Standard		12.0	703.3	-	WQBEL	
(BOD ₅)	lbs/d	Daily Max	0.2 Monthly Avg	-	-	0.30 Monthly Avg	-				0.12				
SUMMER 6/1 – 10/31	% Rem	Minimum	85	-	-	85	40 CFR Part 133.102				-				
Consistent with ECL 17-0509, TBELs for facilities treating sanitary sewage are reflective of secondary treatment standards .															
Reach Description: See Reach Description Section of the factsheet															
WQ Model Input: The downstream DO concentration was modeled using the Streeter-Phelps equations with the following inputs: Effluent DO = 7.0 mg/l, Effluent UOD = 19.87 mg/L, Effluent BOD ₅ = 12.0 mg/L, Effluent NOD = 1.87 mg/L (Equal to the WQ Standard of ammonia), effluent and ambient temperature of 25°C.															
WQ Model Finding: The WQ model showed that the existing effluent limit will not meet the dissolved oxygen standard. Therefore, revised WQBEL for BOD ₅ is required to maintain downstream water quality.															
5-day Biochemical Oxygen Demand	mg/L	Daily Max	20 Monthly Avg	-	- / -	30 Monthly Avg	ECL 17-0509	-	Dissolved Oxygen= 4.0 mg/l Surrogate Standard		26.0	703.3	-	Antibacksliding	
(BOD ₅)	lbs/d	Daily Max	0.2 Monthly Avg	-	-	0.30 Monthly Avg	-				0.26				
WINTER 11/1 – 5/31	% Rem	Minimum	85	-	-	85	40 CFR Part 133.102				-				
Consistent with ECL 17-0509, TBELs for facilities treating sanitary sewage are reflective of secondary treatment standards .															
WQ Model Input: The downstream DO concentration was modeled using the Streeter-Phelps equations with the following inputs: Effluent DO = 7.0 mg/l, Effluent UOD = 19.87 mg/L, Effluent BOD ₅ = 12.0 mg/L, Effluent NOD = 1.87 mg/L (Equal to the WQ Standard of ammonia), effluent and ambient temperature of 25°C.															
WQ Model Finding: The WQ model showed that existing WQBEL for BOD ₅ is sufficient to me the WQ standard. However, due to winter low temperature, more assimilative capacity is available and consequently WQBEL can be increased from 20 mg/l to 26 mg/L for BOD ₅ .															
Total	mg/L	Daily Max	20 Monthly Avg	-	- / -	30 Monthly Avg	ECL 17-0509	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.		20.0	703.2	-	WQBEL	
Suspended	lbs/d	Daily Max	0.2 Monthly Avg	-	-	0.30	-				0.20				

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Outfall #	001	Description of Wastewater: Treated Sanitary Sewage													
		Type of Treatment: Grease Trap, Septic Tank, Sand Filtration, and 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 ³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Solids (TSS)	% Rem	Minimum	85	-	-	85	40 CFR Part 133.102					-			
Consistent with ECL 17-0509, TBELs for facilities treating sanitary sewage are reflective of secondary treatment standards .															
Settleable Solids	mL/L	Daily Max	0.1	-	- / -	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.			703.2	-	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.															
Dissolved Oxygen	mg/L	Daily Min	-	-	-	7.0	TOGS 1.3.1	-	-	(Non-Trout) 4.0 mg/L		7.0	703.3	-	ISEL
(DO)	Consistent with TOGS 1.3.1, intermittent stream effluent limits (ISEL) are applied to effluent discharges to streams where little or no streamflow is available for dilution. These limits represent the highest degree of treatment that can reasonably be achieved by a wastewater treatment facility treating domestic type waste.														
The model showed that a WQBEL for DO is necessary to maintain downstream water quality.															
Nitrogen, Ammonia (as N)	mg/L	Monthly Avg	Monitor	-	- / -	-	-	-	-	0.41	A(C)	0.41	703.5	-	WQBEL
SUMMER 6/1 – 10/31	lb/d	Monthly Avg	-	-	-	-	-	-	-	-	-	0.004			
Consistent with TOGS 1.3.1, intermittent stream effluent limits (ISEL) are applied to effluent discharges to streams where little or no streamflow is available for dilution. As such, the water quality standards have been applied as end-of-pipe limitations with no mixing or dilution. The WQS for Ammonia was determined from TOGS 1.1.1 from a pH of 8.3 SU (watershed 80 th percentile value) and a summer temperature of 25°C. The temperature of the receiving waterbody was an assumed value and consistent with TOGS 1.3.1E.															
Nitrogen, Ammonia (as N)	mg/L	Monthly Avg	Monitor	-	- / -	-	-	-	-	0.56	A(C)	0.56	703.5	-	WQBEL
WINTER 11/1 – 5/31	lb/d	Monthly Avg	-	-	-	-	-	-	-	-	-	0.006			
Consistent with TOGS 1.3.1, intermittent stream effluent limits (ISEL) are applied to effluent discharges to streams where little or no streamflow is available for dilution. As such, the water quality standards have been applied as end-of-pipe limitations with no mixing or dilution. The WQS for Ammonia was determined from TOGS 1.1.1 from a pH of X and a winter temperature of X °C. The temperature of the receiving waterbody was an assumed value and consistent with TOGS 1.3.1E.															
Total Phosphorus	mg/L	Monthly Avg	-	-	- / -	-	-	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	

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Outfall #	001	Description of Wastewater: Treated Sanitary Sewage													
		Type of Treatment: Grease Trap, Septic Tank, Sand Filtration, and 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 ³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
		Downstream of the discharge, Pond P169 exists and therefore phosphorus effluent limit is indicated consistent with TOGS 1.3.6.													
Coliform, Fecal	#/100 ml	30d Geo Mean	200	-	- / -	200	TOGS 1.3.3	-	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 have been specified.														
Total Residual Chlorine (TRC)	mg/L	Daily Max	0.1	-	- / -	2.0	TOGS 1.3.3	-	-	0.005	A(C)	0.005	703.5	0.03	ML
Effluent disinfection is currently required seasonally and has been continued. In absence of 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.															

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) and 750-1.10(d), CWA sections 402(o), 303(d)(4), ECL 17-0809, 40 CFR 122.44(l)
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 waste load allocation (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 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, 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 law⁴ and USEPA interpretation⁵ 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 DEC 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

⁴ American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

⁵ 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 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 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 DEC 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 DEC 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 DEC;
- 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 DEC 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 DEC 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, 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

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.