State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	**8999**	NAICS Code:	**721214**	SPDES Number:	**NY0281760**
Discharge Class (CL):	**09**			DEC Number:	**3-5156-00354/00001**
Toxic Class (TX):	**N**			Effective Date (EDP):	**EDP**
Major-Sub Drainage Basin:	**13 - 06**			Expiration Date (ExDP):	**ExDP**
Water Index Number:	**H-139-14-38-3-1**	Item No.:	**855.4 - 89**	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:	**The Machaneh Trust**	Attention:	**Moshe Kramer, Executive Director**		
Street:	**4 Leipnik Way, Unit 301**				
City:	**Monroe**	State:	**NY**	Zip Code:	**10950-5449**
Email:	**mrt543@gmail.com**	Phone:	**(845) 662-7100**		

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL																	
Name:	**Camp Talmud Torah Ohel Yochanan**																
Address / Location:	**42 Synagogue Road**											County:	**Ulster**				
City:	**Greenfield Park**						State:	**NY**				Zip Code:	**12435**				
Facility Location:		Latitude:	**41**	°	**44**	’	**52**	” N	& Longitude:	**74**	°	**31**	’	**51**	” W		
Primary Outfall No.:	**001**	Latitude:	**41**	°	**44**	’	**50**	” N	& Longitude:	**74**	°	**31**	’	**57**	” W		
Outfall Description:	**Treated Sanitary**		Receiving Water:		**West Branch Beer Kill**				Class:	**B**		Standard:	**B(TS)**				

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
EPA Region II (Region2_NPDES@epa.gov)

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 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[1]	Seasonal from June 1st – October 31st	West Branch Beer Kill	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location Inf.	Location Eff.	
Flow	Monthly Average	34,000	GPD			Continuous	Recorder		X	
Flow	Daily Maximum	Monitor	MGD			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	Daily Maximum	10.0	mg/L	2.84	lbs/d	Quarterly	Grab	X	X	2, 3
Total Suspended Solids (TSS)	Daily Maximum	10.0	mg/L	2.84	lbs/d	Quarterly	Grab	X	X	2, 3
Settleable Solids	Daily Maximum	0.1	mL/L			Daily	Grab		X	
Dissolved Oxygen	Daily Minimum	7.0	mg/L			Quarterly	Grab		X	3
Ammonia (as N)	Monthly Average	3.6	mg/L	1.0	lbs/d	Quarterly	Grab		X	3
Total Phosphorus (as P)	Monthly Average	1.0	mg/L	0.28	lbs/d	Quarterly	Grab		X	3

EFFLUENT DISINFECTION Required Seasonal from May 1st - October 31st		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Coliform, Fecal	30-Day Geometric Mean	200	No./ 100 mL			Quarterly	Grab		X	3
Coliform, Fecal	7-Day Geometric Mean	400	No./ 100 mL			Quarterly	Grab		X	3
Chlorine, Total Residual	Daily Maximum	0.03	mg/L			Daily	Grab		X	4, 5

Footnotes on Next Page

PERMIT LIMITS, LEVELS AND MONITORING (Continued)

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001[1]	Seasonal from November 1st – May 31st	West Branch Beer Kill	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location Inf.	Location Eff.	
Flow	Monthly Average	34,000	GPD			Continuous	Recorder		X	
Flow	Daily Maximum	Monitor	MGD			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	8.5	lbs/d	Quarterly	Grab	X	X	2, 3
BOD_5	7-Day Average	45	mg/L	13	lbs/d	Quarterly	Grab		X	3
Total Suspended Solids (TSS)	Monthly Average	30	mg/L	8.5	lbs/d	Quarterly	Grab	X	X	2, 3
Total Suspended Solids (TSS)	7-Day Average	45	mg/L	13	lbs/d	Quarterly	Grab		X	3
Settleable Solids	Daily Maximum	0.1	mL/L			Daily	Grab		X	
Dissolved Oxygen	Daily Minimum	Monitor	mg/L			Quarterly	Grab		X	3
Ammonia (as N)	Monthly Average	8.7	mg/L	2.5	lbs/d	Quarterly	Grab		X	3
Total Phosphorus (as P)	Monthly Average	1.0	mg/L	0.28	lbs/d	Quarterly	Grab		X	3

EFFLUENT DISINFECTION Required Seasonal from May 1st - October 31st		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Coliform, Fecal	30-Day Geometric Mean	200	No./ 100 mL			Quarterly	Grab		X	3
Coliform, Fecal	7-Day Geometric Mean	400	No./ 100 mL			Quarterly	Grab		X	3
Chlorine, Total Residual	Daily Maximum	0.03	mg/L			Daily	Grab		X	4, 5

FOOTNOTES:

1. Discharge from any new or modified disposal system is not authorized until the system has been approved by the Department. The construction of the disposal system must be completed by EDP + 5 Years.

2. Effluent shall not exceed 15% and 15% of influent concentration values for BOD_5 & 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. 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.

5. This is a Compliance Level. The calculated WQBEL is 0.017 mg/L.

MERCURY MINIMIZATION PROGRAM (MMP) - Type IV

On September 11, 2023, the permittee submitted a Conditional Exclusion Certification, certifying that the facility does not have any of the mercury sources listed in Part III.A.3. of DOW 1.3.10.

1. General - The permittee must develop, implement, and maintain a mercury minimization program (MMP), containing the elements set forth below.
2. MMP Elements - The MMP must be a written document and must include any necessary drawings or maps of the facility and/or collection system. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. At a minimum, the MMP must include the following elements[1] as described in detail below:

   a. Conditional Exclusion Certification - A certification (Appendix D of *DOW 1.3.10*), signed in accordance with 750-1.8 Signature of SPDES forms, must be submitted once every five (5) years for Outfall(s) 001 to the Regional Water Engineer and to the Bureau of Water Permits certifying that Outfall(s) 001 for the facility is neither a mercury source nor receives flows from a mercury source. Criteria to determine if a facility has a mercury source are as follows:

      - The facility is or receives discharge from 1) individually permitted combined sewer overflow (CSOs)[2] communities and/or 2) Type II sanitary sewer overflow (SSO)[3] facilities;
      - One or more effluent samples which exceed 12 ng/L, including samples taken as a result of the SPDES application process;
      - Internal or tributary waste stream samples exceed the GLCA effluent limitation **AND** the final effluent samples are less than the GLCA due primarily to dilution by uncontaminated or less contaminated waste streams. Both components of this criterion may include samples taken as a result of the SPDES application process;
      - A permit application or other information indicates that mercury is handled on site and could be discharged through outfalls;
      - Outfalls which contain legacy mercury contamination;
      - The facility's collection system receives discharges from a dental and/or categorical industrial user (CIU)[4] that may discharge mercury;
      - The facility accepts hauled wastes; or,
      - The facility is defined as a categorical industry that may discharge mercury. This may also include dentists, universities, hospitals, or laboratories which have their own SPDES permit.

   b. Control Strategy - The control strategy must contain the following minimum elements:
      i. Equipment and Materials – Equipment and materials (e.g., thermometers, thermostats) used by the permittee, which may contain mercury, must be evaluated by the permittee. As equipment and materials containing mercury are updated/replaced, the permittee must use mercury-free alternatives, if possible.
      ii. Bulk Chemical Evaluation – For chemicals, used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee must obtain a manufacturer's certificate of analysis, a chemical analysis performed by a certified laboratory, and/or a notarized affidavit which describes the substances' mercury concentration and the detection limit achieved. If possible, the permittee must only use bulk chemicals utilized in the wastewater treatment process which contain <10 ppb mercury.

[1] Neither monitoring nor outreach is required for facilities meeting the criteria for MMP Type IV, but monitoring and/or outreach can be included in the permittee's control strategy.
[2] CSO permits are included under the 05 and 07 permit classifications.
[3] These are overflow retention facilities (ORFs) and are included under the 05 and 07 permit classifications.
[4] CIUs include those listed under Federal Regulation in 40 CFR Part 400.

MERCURY MINIMIZATION PROGRAM (MMP) – Type IV (Continued)

c. **Status Report** - An **annual** status report must be developed and maintained on site, in accordance with the Schedule of Additional Submittals, summarizing:

   i. Review of criteria to determine if the facility has a potential mercury source;
      a. If the permittee no longer meets the criteria for MMP Type IV, the permittee must notify the Department for a permittee-initiated permit modification;
   ii. All actions undertaken, pursuant to the control strategy, during the previous year; and
   iii. Actions planned, pursuant to the control strategy, for the upcoming year.

   The permittee must maintain a file with all MMP documentation. The file must be available for review by Department representatives and copies must be provided upon request in accordance with 6 NYCRR 750-2.1(i) and 750-2.5(c)(4).

3. MMP Modification - The MMP must be modified whenever:
   a. Changes at the facility, or within the collection system, increase the potential for mercury discharges;
   b. A letter from the Department identifies inadequacies in the MMP.

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

DEFINITIONS:

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

DISCHARGE NOTIFICATION REQUIREMENTS

(a) The permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit, unless the Permittee has obtained a waiver in accordance with the Discharge Notification Act (DNA). Such signs shall be installed before initiation of any 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:

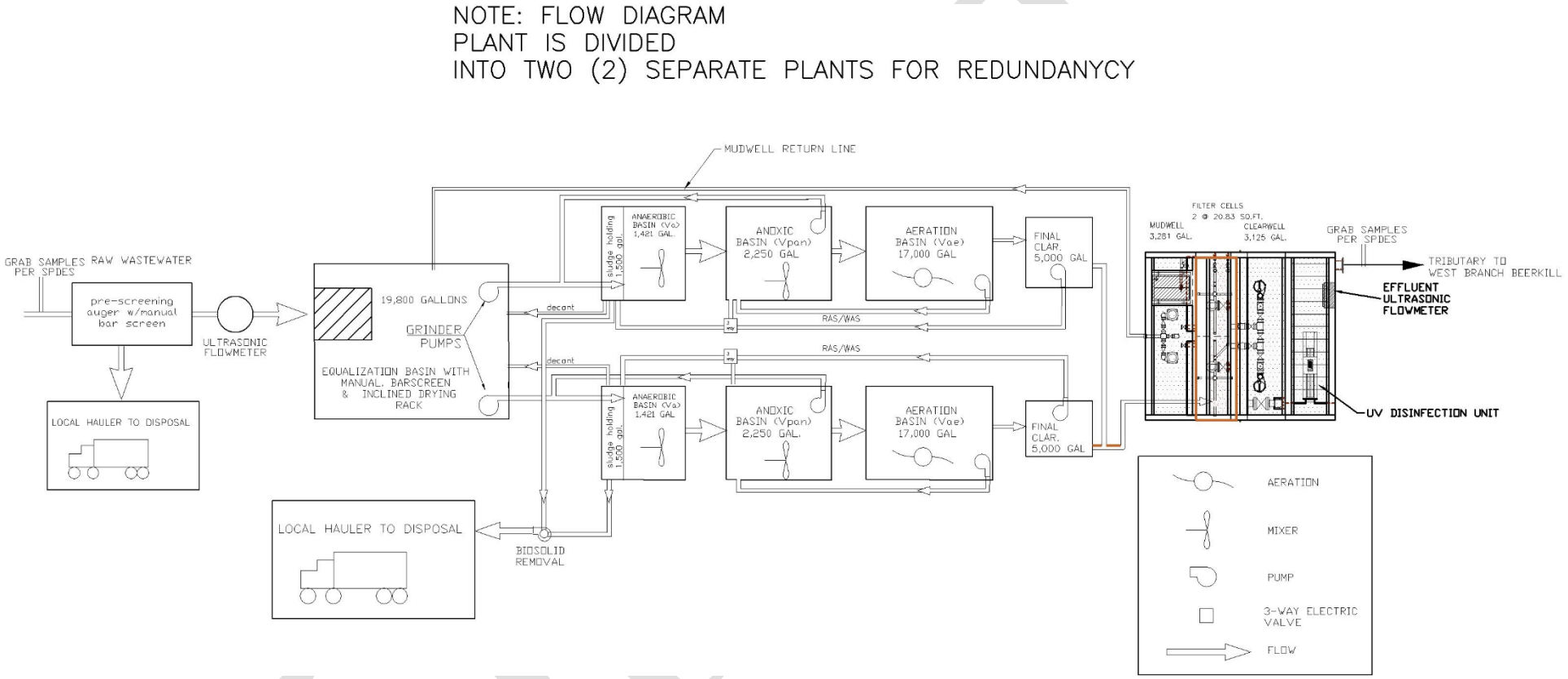
NYSDEC Division of Water Regional Phone: ( ) - ### - ####

(e) 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.

MONITORING LOCATIONS

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



GENERAL REQUIREMENTS

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

B. General Conditions

1.	Duty to comply	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. Discharge Monitoring Reports (DMRs): Completed DMR forms shall be submitted for each 1 month reporting period in accordance with the DMR Manual available on Department's website.

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by NYSDEC. Instructions on the use of NetDMR can be found at https://www.dec.ny.gov/chemical/8461.html. **Hardcopy paper DMRs will only be accepted if a waiver from the electronic submittal requirements has been granted by DEC to the facility.**

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

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

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

Department of Environmental Conservation
Regional Water Engineer, Region 3
21 South Putt Corners Road
New Paltz, New York 12561-1696

Phone: (845) 256-3000

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

Phone: (518) 402-8111

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	SHORT-TERM HIGH-INTENSITY MONITORING PROGRAM The permittee shall collect 1 sample representative of normal discharge conditions and treatment operations over a semiannual monitoring period for mercury. The permittee shall use the low-level, USEPA Method 1631E for the determination of the concentration of mercury. The permittee shall submit the result.	Startup of New Plant + 6 months
001	PUBLIC NOTIFICATION Permittee shall install identification signs at all outfalls owned and operated by the permittee. The signs shall be placed at or near the outfalls and be easily readable by the public and follow the guidelines contained in this permit.	Completion of Construction of New Plant
001	MERCURY - CONDITIONAL EXCLUSION CERTIFICATION Permittee must submit a mercury conditional exclusion certification every five years in order to maintain MMP Type IV status. As part of the certification the permittee will be required to sample the effluent and measure <12 ng/L.	EDP and every 5 years thereafter

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	**Required Action**	**Due Date**
001	MERCURY MINIMIZATION PLAN The permittee must complete and maintain onsite an annual mercury minimization status report in accordance with the requirements of this permit.	***Maintained Onsite*** EDP + 12 months, annually thereafter
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. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

G. 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.

H. 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
The Machaneh Trust
Camp Talmud Torah Ohel Yochanan
NY0281760

Contents

Summary of Permit Changes

A new State Pollutant Discharge Elimination System (SPDES) permit has been drafted for the Camp Talmud Torah Ohel Yochanan.

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

5/19/2023 The Machaneh Trust submitted a 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 that will receive 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 proposed 0.034 MGD treatment plant consists of:

- Preliminary Treatment: Screening, Flow Equalization
- Secondary Treatment: Activated Sludge, Final Clarification
- Tertiary Treatment: Sand Filtration, Effluent Reoxygenation
- Disinfection: Ultraviolet

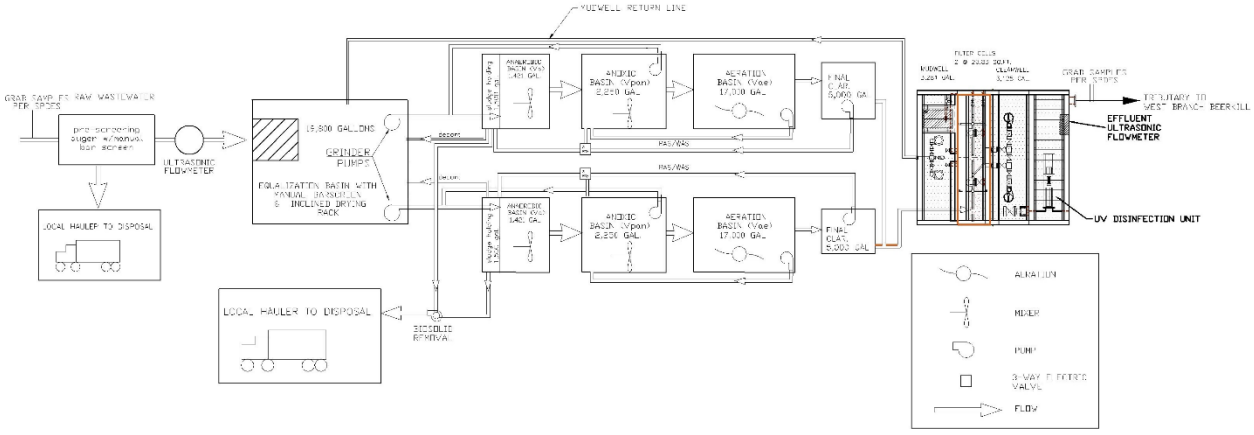
Sludge will be hauled to a landfill.

The primary outfall (Outfall 001) will be designed as a bank discharge.

The facility is planning to construct the proposed 0.034 MGD treatment plant.

Site Overview

NOTE: FLOW DIAGRAM
PLANT IS DIVIDED
INTO TWO (2) SEPARATE PLANTS FOR REDUNDANYCY



Additional Site-Specific Concerns

This site is located within an area of interest to the Environmental Justice program.

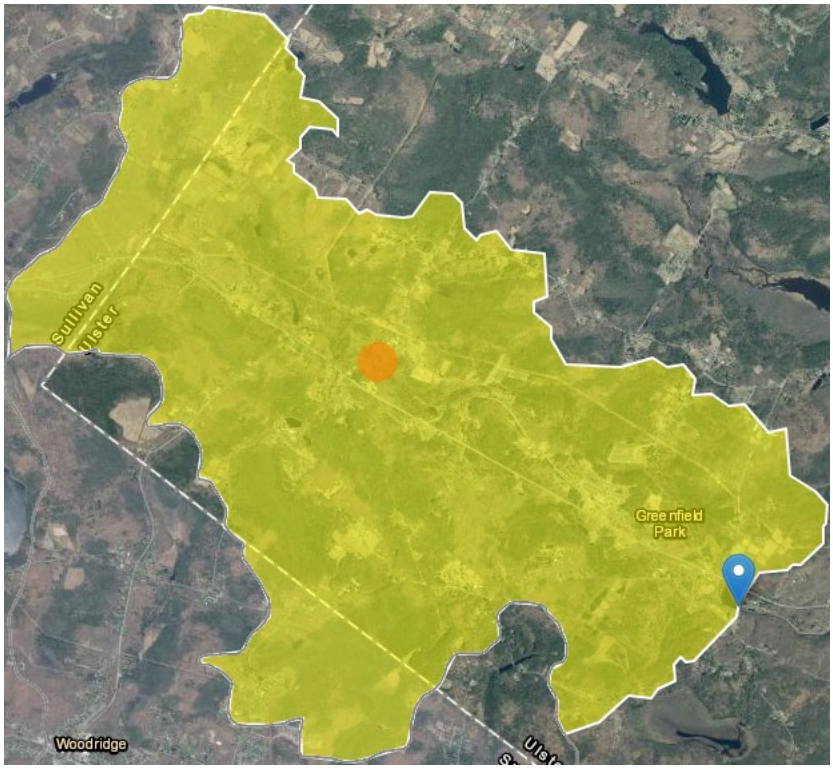
Receiving Water Information

The facility proposes to discharge via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	8999	Treated Sanitary Sewage	West Branch Beer Kill, Class B(TS)

Reach Description: The segment of West Branch Beer Kill at the point of discharge is tributary of Windsor Lake (H-139-14-38-3- 1-P 793) approximately 3.5 miles downstream of the discharge and part of the lake watershed. The terrain (slope) of the receiving water is steep and provides high aeration and reaeration coefficients for the oxidation of organic matter and the water quality model (WQM), respectively.

Water Quality Model - (WQM)
A seven reach WQ model is developed to simulate the dissolved oxygen responses at various combinations of effluent dissolved oxygen, biological oxygen demand (BOD_5 and NOD) at the designed summer and winter temperatures of 24°C and 10°C per TOGS 1.3.1, respectively, to ascertain compliance with the dissolve oxygen level of 7.0 mg/L established for the protection of trout spawning [B(TS)]. The most optimized inputs to model composed of various combination of these are recommended as the effluent limits while complying with the noted DO standard.



See the Outfall and Receiving Water Summary Table and Appendix for additional information.

Impaired Waterbody Information

The West Branch Beer Kill and tribs segment (PWL No. 1306-0117) 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 low flow condition for the West Branch Beer Kill was obtained from a drainage basin ratio analysis with USGS gage station 01366700, West Branch Beer Kill at Ellenville located approximately 5.75 miles downstream of the discharge. The 7Q10 flow and drainage area at the gage were found from the USGS/NYSDEC Bulletin 74, 1979. The 1Q10 flow was estimated as half the 7Q10 and the 30Q10 flow was estimated as 1.2 x 7Q10.

Gage Name: West Branch Beer Kill at Ellenville

Gage ID: 01366700
Drainage Area at Gage (mi^2): 20.3
Drainage Area at Facility (mi^2): 5.31
7Q10 Flow at Gage (CFS): 0.50 Source: Bulletin 74
Calculated 7Q10 Flow at Facility (CFS): 0.1308
Estimated 1Q10 (CFS): 0.0654
Estimated 30Q10 (CFS): 0.1569

The 1Q10, 7Q10, and 30Q10 flows were used to calculate the acute, chronic, and human, aesthetic, wildlife (HEW) dilution ratios, respectively.

Consistent with TOGS 1.3.1 for large rivers, the acute and chronic dilution ratios are limited to a max of 50:1 and 100:1, respectively.

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

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
001	2.24:1	3.49:1	3.98:1	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

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 new.

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

[1] As prescribed by 6 NYCRR Part 617

Mercury[2]

The multiple discharge variance (MDV) for mercury provides the framework for NYSDEC to require mercury monitoring and mercury minimization programs (MMPs), through SPDES permitting. Appendix Link

The facility is not located in the Great Lakes Basin and does not have a mercury source. On 09/11/2023, the permittee submitted a Conditional Exclusion Certification, certifying that the facility does not have any of the mercury sources listed in Part III.A.3. of DOW 1.3.10 and the the "expected" concentration in the effluent measures <12 ng/L. Therefore, consistent with DOW 1.3.10, the permit includes requirements for the implementation of MMP Type IV and does not include mercury effluent limitations. The Schedule of Additional Submittals includes a mercury minimization plan annual status report (maintained onsite), and re-certification of the exclusion every five years. As part of the re-certification, the effluent must be sampled and continue to measure <12 ng/L. This requirement is new.

Schedule(s) of Additional Submittals

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

- Short-term, High-intensity Monitoring Program for Mercury
- Discharge Notification Signs
- Mercury Conditional Exclusion Certification
- Mercury Minimization Program Annual Status Report (maintained onsite)

[2] In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

Permittee: The Machaneh Trust
Facility: Camp Talmud Torah Ohel Yochanan
SPDES Number: NY0281760
USEPA Non-Major/Class 09 PCI

Date: February 22, 2024 v.1.17
Permit Writer: H. Joe Fung
Water Quality Reviewer: Aslam Mirza
Full Technical Review

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	1Q10 (CFS)	7Q10 (CFS)	30Q10 (CFS)	Critical Effluent Flow (MGD/CFS)	Dilution Ratio		
											A(A)	A(C)	HEW[3]
001	41° 44' 50" N	74° 31' 57" W	West Branch Beer Kill	B(TS)	H-139-14-38-3-1 PWL: 1306-0117	13 / 06	0.0654	0.1308	0.1569	0.034/0.0526	2.24:1	3.49:1	3.98:1/ 4.98:1

POLLUTANT SUMMARY TABLE

Outfall 001

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage **Type of Treatment:** Screening, Flow Equalization, Activated Sludge, Final Clarification, Sand Filtration, Effluent Reoxygenation, and Ultraviolet Disinfection											
Effluent Parameter	Units	Averaging Period	TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
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	**34,000**	Design Flow	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	TOGS 1.3.3	-	-	6.5 – 8.5	Range	**6.5 - 8.5**	703.3	-	WQBEL
		Maximum	9.0									
	Consistent with TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Given that adequate dilution is not available, an effluent limitation equal to the WQS is appropriate.											
Temperature	°F	Daily Max	**Monitor**	750-1.13 Monitor	-	Narrative (Trout): No discharge at a temperature over 70F (21C) shall be permitted at any time to streams classified for trout				704.2	-	Monitor
5-day Biochemical	mg/L	Monthly Avg	30	TOGS 1.3.3	-	Dissolved Oxygen = 7.0 mg/L (Surrogate Standard)			**10.0** Daily Maximum	703.3	-	WQBEL
		7 Day Avg	45	TOGS 1.3.3					-			

[3] HQ10= 50% of 7Q10 flow; HEW*= For summer and winter ammonia limits

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage **Type of Treatment:** Screening, Flow Equalization, Activated Sludge, Final Clarification, Sand Filtration, Effluent Reoxygenation, and Ultraviolet Disinfection										
Effluent Parameter	Units	Averaging Period	TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Oxygen	lbs/d	Monthly Avg	8.5	TOGS 1.3.3					**2.84** Daily Maximum			
Demand		7 Day Avg	13	TOGS 1.3.3					-			
(BOD_5)	% Rem	Minimum	**85**	TOGS 1.3.3					-			
SUMMER 6/1 – 10/31	Consistent with TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. See justification for Dissolved Oxygen.											
5-day	mg/L	Monthly Avg	**30**	TOGS 1.3.3	-	Dissolved Oxygen = 7.0 mg/L (Surrogate Standard)			-	-	-	TBEL
Biochemical		7 Day Avg	**45**	TOGS 1.3.3					-			
Oxygen	lbs/d	Monthly Avg	**8.5**	TOGS 1.3.3					-			
Demand		7 Day Avg	**13**	TOGS 1.3.3					-			
(BOD_5)	% Rem	Minimum	**85**	TOGS 1.3.3					-			
WINTER 11/1 – 5/31	Consistent with TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. The modeling results show that secondary treatment level is acceptable for the protection of water quality of the receiving water.											
Total	mg/L	Monthly Avg	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.			**10.0** Daily Maximum	703.2	-	WQBEL
Suspended		7 Day Avg	45	TOGS 1.3.3					-			
Solids (TSS)	lbs/d	Monthly Avg	8.5	TOGS 1.3.3					**2.84** Daily Maximum			
SUMMER 6/1 – 10/31		7 Day Avg	13	TOGS 1.3.3					-			
	% Rem	Minimum	**85**	TOGS 1.3.3					-			
	Consistent with TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Effluent limit equal to the BOD_5 level is recommended.											
Total	mg/L	Monthly Avg	**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
Suspended		7 Day Avg	**45**	TOGS 1.3.3								
Solids (TSS)	lbs/d	Monthly Avg	**8.5**	TOGS 1.3.3								
WINTER 11/1 – 5/31		7 Day Avg	**13**	TOGS 1.3.3								

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage **Type of Treatment:** Screening, Flow Equalization, Activated Sludge, Final Clarification, Sand Filtration, Effluent Reoxygenation, and Ultraviolet Disinfection										
Effluent Parameter	Units	Averaging Period	TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
	% Rem	Minimum	**85**	TOGS 1.3.3								
	Consistent with TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. The modeling results show that secondary treatment level is acceptable for the protection of water quality of the receiving water.											
Settleable Solids	mL/L	Daily Max	**0.1**	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
	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 protective of the WQS.											
Dissolved Oxygen (DO) SUMMER 6/1 – 10/31	mg/L	Daily Min	-	-	-	>7.0	(TS) 7.0 mg/L	Narrative	**7.0**	703.3	-	WQBEL
	The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: T= 24˚C, Effluent DO = 7.0 mg/L, Effluent UOD = 31.5 mg/L, Effluent NOD = 16.5 mg/L. Reach Description: See Reach Description in the document. The model showed that WQBELs for DO, BOD/CBOD, and Ammonia are necessary to comply with class B(TS) dissolved oxygen standard of 7.0 mg/L.											
Dissolved Oxygen (DO) WINTER 11/1 – 5/31	mg/L	Daily Min	-	-	-	>7.0	(TS) 7.0 mg/L	Narrative	**Monitor**	703.3	-	Monitor
	The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: T= 10˚C, Effluent DO = 2.0 mg/L, Effluent UOD = 85 mg/L, Effluent BOD_5 = 30.0 mg/L. Effluent NOD = 40.0 mg/L. The model indicated that the secondary treatment level is acceptable for complying with the applicable DO standard of 7.0 mg/L, and consequently WQBELs for DO and BOD/CBOD, are not required. For a well operating wastewater treatment plant with activated sludge system, an effluent DO is usually above 2.0 mg/L. This effluent threshold should be maintained all times to ensure the proper operation of the facility and monitoring of same is suggested.											
Nitrogen, Ammonia (as N) June 1st – Oct. 31st	mg/L	Monthly Avg	-	-	0.1 as NH_3-T	0.98	0.98	A(C)	**3.64**	TOGS 1.1.1	-	WQBEL
	lb/d	Monthly Avg	-	-	-	-	-	-	**1.03**			
	The WQS for Ammonia was determined from TOGS 1.1.1 for a summer pH of 7.5 and a temperature of 24˚C consistent with TOGS 1.3.1E. The WQ based effluent limit was developed by multiplying the WQ standard and a dilution of 3.98.											

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage **Type of Treatment:** Screening, Flow Equalization, Activated Sludge, Final Clarification, Sand Filtration, Effluent Reoxygenation, and Ultraviolet Disinfection										
Effluent Parameter	Units	Averaging Period	TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Nitrogen, Ammonia (as N) Nov. 1st – May 31st	mg/L	Monthly Avg	-	-	0.1 as NH_3-T	1.81	1.81	A(C)	**8.70**	TOGS 1.1.1	-	WQBEL
	lb/d	Monthly Avg	-	-	-	-	-	-	**2.46**			
	The WQS for Ammonia was determined from TOGS 1.1.1 for a summer pH of 7.5 and a temperature of 10˚C consistent with TOGS 1.3.1E. The WQ based effluent limit was developed by multiplying the WQ standard and a dilution of 4.98.											
Total Phosphorus	mg/L	Monthly Avg	**1.0**	TOGS 1.3.6	-	-	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	-	TBEL
	lb/d	Monthly Avg	**0.28**	TOGS 1.3.6	-	-			0.28			
	Consistent with TOGS 1.3.6, permits for new discharges in lake watersheds for discharges over 10,000 but less than 50,000 gpd for both surface water and soil discharges, the effluent that is discharged should not exceed 1.0 mg/l of total phosphorus.											
Coliform, Fecal	#/100 ml	30d Geo Mean	**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**	TOGS 1.3.3	-							
	Consistent with TOGS 1.3.3, effluent disinfection is required seasonally from May 1st - October 31st, due to the class of the receiving waterbody. Fecal coliform limits equal to the TBEL are specified.											
Total Residual Chlorine (TRC)	mg/L	Daily Max	2.0	TOGS 1.3.3	-	0.005	0.005	A(C)	0.017	703.5	**0.03**	ML
	Seasonal effluent disinfection is being added to the permit. The WQBEL was calculated by multiplying the WQS and a dilution ratio of 3.47. 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.											

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 law[4] and USEPA interpretation[5] 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

[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 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.

Whole Effluent Toxicity (WET) Testing:

WET tests use small vertebrate and invertebrate species to measure the aggregate toxicity of an effluent. There are two different durations of toxicity tests: acute and chronic. Acute toxicity tests measure survival over a 96-hour test exposure period. Chronic toxicity tests measure reductions in survival, growth, and reproduction over a 7-day exposure. TOGS 1.3.1 includes guidance for determining when aquatic toxicity testing should be included in SPDES permits. The authority to require toxicity testing is in 6NYCRR 702.9. TOGS 1.3.2 describes the procedures which should be followed when determining whether to include toxicity testing in a SPDES permit and how to implement a toxicity testing program. Per TOGS 1.3.2, WET testing may be required when any one of the following seven criteria are applicable:

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

Minimum Level of Detection

Pursuant to 40 CFR 122.44(i)(1)(iv) and 6 NYCRR 750-2.5(d), SPDES permits must contain monitoring requirements using sufficiently sensitive test procedures approved under 40 CFR Part 136. A method is “sufficiently sensitive” when the method’s minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant parameter; or the lowest ML of the analytical methods approved under 40 CFR Part 136. The ML represents the lowest level that can be measured within specified limitations of precision and accuracy during routine laboratory operations on most effluent matrices. When establishing effluent limitations for a specific parameter (based on technology or water quality requirements), it is possible that the calculated limitation will fall below the ML established by the approved analytical method(s). In these instances, the calculated limitation is included in the permit with a compliance level set equal to the ML of the most sensitive method.

Monitoring Requirements

CWA section 308, 40 CFR 122.44(i), 6 NYCRR 750-1.13, and 750-2.5 require that monitoring be included in permits to determine compliance with effluent limitations. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required. The permittee is responsible for conducting the monitoring and reporting results on Discharge Monitoring Reports (DMRs). The permit contains the monitoring requirements for the facility. Monitoring frequency is based on the minimum sampling necessary to adequately monitor the facility’s performance and characterize the nature of the discharge of the monitored flow or pollutant. Variable effluent flows and pollutant levels may be required to be monitored at more frequent intervals than relatively constant effluent flow and pollutant levels (6 NYCRR 750-1.13). For industrial facilities, sampling frequency is based on guidance provided in TOGS 1.2.1. For municipal facilities, sampling frequency is based on guidance provided in TOGS 1.3.3.

Other Conditions

Mercury

The multiple discharge variance (MDV) for mercury was developed in accordance with 6 NYCRR 702.17(h) “to address widespread standard or guidance value attainment issues including the presence of a ubiquitous pollutant or naturally high levels of a pollutant in a watershed.” The first MDV was issued in October 2010, and subsequently revised and reissued in 2015; each subsequent iteration of the MDV is designed to build off the previous version, to make reasonable progress towards the water quality standard (WQS) of 0.7 ng/L dissolved

mercury. The MDV is necessary because human-caused conditions or sources of mercury prevent attainment of the WQS and cannot be remedied (i.e., mercury is ubiquitous in New York waters at levels above the WQS and compliance with a water quality based effluent limitation (WQBEL) for mercury cannot be achieved with demonstrated effluent treatment technologies). The Department has determined that the MDV is consistent with the protection of public health, safety, and welfare. During the effective period of this MDV, any increased risks to human health are mitigated by fish consumption advisories issued periodically by the NYSDOH.

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

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.