



Department of
Environmental
Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	4952	NAICS Code:	221320	SPDES Number:	NY0313254
Discharge Class (CL):	07	DEC Number:	1-4722-07447/00001		
Toxic Class (TX):	N	Effective Date (EDP):	EDP		
Major-Sub Drainage Basin:	17 - 01	Expiration Date (ExDP):	ExDP		
Water Index Number:	Groundwater	Item No.:	-	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:	Town of Brookhaven			Attention:	Michelle DiBrita, Chief Deputy Commissioner
Street:	1 Independence Hill				
City:	Farmingville			State:	NY Zip Code: 11738
Email:	mdibrita@brookhavenny.gov			Phone:	631-451-6406

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL									
Name:	Mastic Beach Sewer District WWTP								
Address / Location:	400 Feet West of the intersection of Mastic Road and Silver Road					County:	Suffolk		
City:	Mastic Beach				State:	NY	Zip Code:	11951	
Facility Location:	Latitude:	40 °	46 '	17.2 " N	& Longitude:	72 °	51 '	17.1 " W	
Primary Outfall No.:	001	Latitude:	40 °	46 '	17.2 " N	& Longitude:	72 °	51 '	17.1 " W
Outfall Description:	Treated Sanitary	Receiving Water:	Groundwater			Class:	GA	Standard:	GA

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

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

DISTRIBUTION:

BWP Permit Coordinator (permit.coordinator@dec.ny.gov)

Permit Writer

RWE

RPA

NYSEFC (sara.tully@efc.ny.gov)

Permit Administrator:	
Address:	50 Circle Road, Stony Brook, NY 11790-2356
Signature	Date

Contents

GROUNDWATER MONITORING WELLS.....	3
DEFINITIONS.....	4
PERMIT LIMITS, LEVELS AND MONITORING.....	5
PROCESS CONTROL MONITORING.....	6
GROUNDWATER MONITORING.....	7
SCHEDULE OF COMPLIANCE.....	8
MONITORING LOCATIONS.....	9
GROUNDWATER MONITORING WELL LOCATIONS.....	10
GENERAL REQUIREMENTS.....	11
RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS.....	13
E. Schedule of Additional Submittals:.....	13

GROUNDWATER MONITORING WELLS

GMW	Description	GMW Latitude						GMW Longitude					
MW-1	Groundwater	40	°	46'	'	21.12	" N	72	°	51	'	18.43	" W
Receiving Water: -								Class:	GA				
GMW	Description	GMW Latitude						GMW Longitude					
MW-2	Groundwater	40	°	46	'	16.22	" N	72	°	51	'	16.21	" W
Receiving Water: -								Class:	GA				
GMW	Description	GMW Latitude						GMW Longitude					
MW-3	Groundwater	40	°	46	'	16.38	" N	72	°	51	'	15.10	" W
Receiving Water: -								Class:	GA				

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 unless otherwise noted	Groundwater	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	0.225	MGD	-	-	Continuous	Meter	-	X	1,2
pH	Daily Minimum	6.5	SU	-	-	1/day	Grab	-	X	1
	Daily Maximum	8.5	SU	-	-					
Temperature	Daily Maximum	Monitor	°F	-	-	1/day	Grab	-	X	1
Total Dissolved Solids (TDS)	Monthly Average	1,000	mg/L	-	-	1/month	6-hr. Comp.	-	X	1,3
Total Kjeldahl Nitrogen (TKN) (as N)	Monthly Average	Monitor	mg/L	-	-	1/month	6-hr. Comp.	-	X	1,3
Total Nitrogen (as N)	Monthly Average	8	mg/L	-	-	1/month	6-hr. Comp.	-	X	1,3,4
Chlorine, Total Residual	Daily Maximum	2.0	mg/L	-	-	1/day	Grab	-	X	1,5,6

FOOTNOTES:

- The limitations on this page shall become effective upon start-up of the 0.225 MGD facility. The startup date for the 0.225 MGD facility will be identified in a letter from the permittee to the Regional Water Engineer at 50 Circle Road, Stony Brook, NY 11790. Start-up shall commence only after the Department's receipt of certification from a New York State Professional Engineer that the treatment plant was constructed in accordance with the approved Engineering Reports, Plans, and Specifications.
- Adverse effects to private drinking water wells used as a drinking water source that are located within the radius of influence of the recharge area, as confirmed by the June 08, 2026, water supply analysis from Hayduk Engineering, must be mitigated prior to commencement of flow to the WTP.
- At least 8 individual manual grab samples must be collected over the course of 6 hours analyzed separately and the concentrations averaged. Alternatively, grab samples may be collected in the field and composited in the laboratory and analyzed as a single sample if the results are equivalent to the arithmetic averaging of individual grab samples.
- Total Nitrogen (as N) = [Total Kjeldahl Nitrogen (TKN), as N] + [Nitrite (NO₂), as N] + [Nitrate (NO₃), as N].
- 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.
- Wastewater disinfection will be required if determined by the Department of Health Services acting as an agent of the NYSDEC, to be necessary for control of odors or other health related purposes. Accordingly, supplies and equipment necessary to assure proper disinfection shall be kept available and operable at all times by the permittee and tested in a manner and frequency as directed by the Department of Health Services.
- No sewer extensions (connections outside the approval district) without prior DEC approval.

PROCESS CONTROL MONITORING

PARAMETER	EFFLUENT LIMITATION				MONITORING REQUIREMENTS			FN
	Type	Limit	Units	Sample Frequency	Sample Type	Location		
						Inf.	Eff.	
Total Flow	Daily Maximum	Monitor	GPD	Continuous	Meter	-	X	1,2
pH-probe	Daily Maximum	Monitor	SU	2/week	Grab	X	X	1,2,4
Temperature-probe	Daily Maximum	Monitor	°C	2/week	Grab	X	X	1,2
Suspended Solids-MLSS	Daily Maximum	Monitor	mg/L	1/month	Grab	-	-	1,2,4
Ammonia, as NH ₃ -Hach	Daily Maximum	Monitor	mg/L	2/week	Grab	X	X	1,2,3
Nitrate & Nitrite as N-Hach	Daily Maximum	Monitor	mg/L	2/week	Grab	X	X	1,2,3
Dissolved Oxygen-probe	Daily Maximum	Monitor	mg/L	2/week	Grab	-	-	1,2,4
Settleability Test-30 min	Daily Maximum	Monitor	mL/L	2/week	Grab	-	-	1,2,4
Visual Observation	Daily Maximum	Monitor	-	2/week	-	X	X	1,2,4

FOOTNOTES:

1. Process control monitoring to be reported on wastewater facility operation report and retained for a period of 5 years.
2. Process control monitoring locations shown on Page(s) 9.
3. Take one sample for Hach kit analysis at same time as monthly laboratory sample collection to enable comparison.
4. pH-probe, Suspended Solids, Settleability Test, Dissolved Oxygen and Visual Observation to be sampled/performed at the SBR tanks.

GROUNDWATER MONITORING

GWMWs ¹	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
MW- 1, MW- 2, MW- 3	Year-round	Groundwater	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION				MONITORING REQUIREMENTS	FN
	Type	Limit	Units	Sample Frequency	Sample Type	
Water Level above MSL	Daily Maximum	Monitor	ft	Quarterly	Measured	1,2,3
Total Kjeldahl Nitrogen	Daily Maximum	Monitor	mg/L	Quarterly	Bailed	1,2,3
Ammonia	Daily Maximum	Monitor	mg/L	Quarterly	Bailed	1,2,3
Nitrate	Daily Maximum	Monitor	mg/L	Quarterly	Bailed	1,2,3
Nitrite	Daily Maximum	Monitor	mg/L	Quarterly	Bailed	1,2,3
Total Nitrogen	Daily Maximum	Monitor	mg/L	Quarterly	Bailed	1,2,3
Total Dissolved Solids	Daily Maximum	Monitor	mg/L	Quarterly	Bailed	1,2,3

FOOTNOTES:

- Groundwater sampling locations are shown on page 10.
MW- 1: Upgradient, MW- 2: Downgradient, MW- 3: Downgradient
- Groundwater monitoring to be reported on Discharge Monitoring Report starting (EDP) and every quarter month thereafter.
- Three well casing volumes must be evacuated prior to sampling all parameters except water level.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

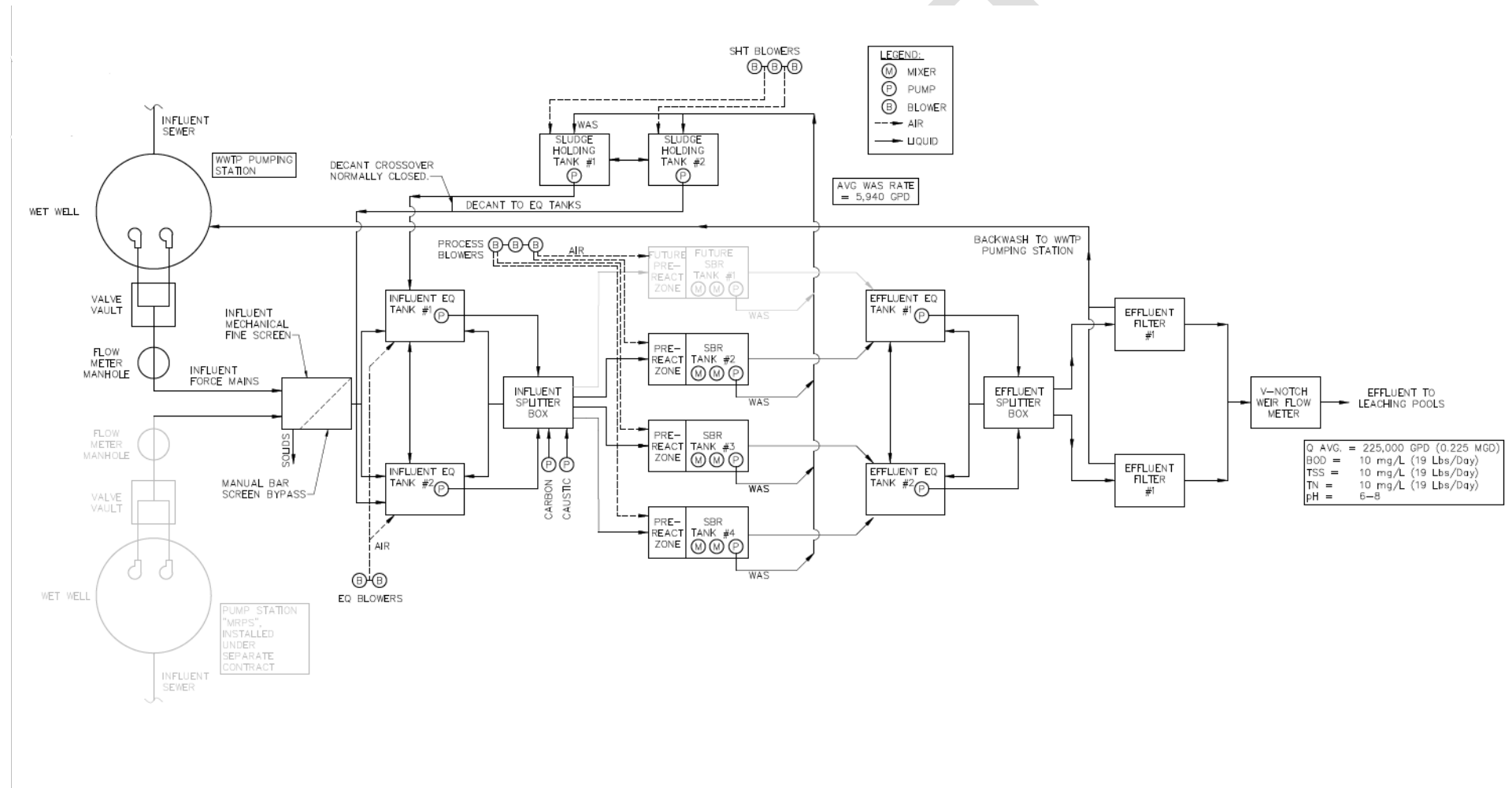
Outfall(s)	Compliance Action	Compliance Date ¹
001	INTERIM PROGRESS REPORT The permittee shall provide a status update for the <i>Design Documents</i> .	EDP + 9 Months EDP + 12 Months EDP + 21 Months
001	DESIGN DOCUMENTS The permittee shall submit approvable Error! Bookmark not defined. Design Documents 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 the pollutants described in this permit.	EDP + 24 Months
001	INTERIM PROGRESS REPORT The permittee shall provide a status update for <i>Complete Construction</i> .	EDP + 33 Months EDP + 42 Months EDP + 51 Months
001	COMPLETE CONSTRUCTION The permittee shall provide a Construction Completion Certification ² to the DEC (send to the Regional Water Engineer and NetDMR@dec.ny.gov) that the disposal system has been fully completed in accordance with the approved Design Documents.	EDP + 54 Months
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 and initiate the Short-Term Monitoring Program described in the compliance action below.	Upon Department Acceptance
Unless noted otherwise, the above actions are one-time requirements.		
See next page for Interim Effluent Limits.		

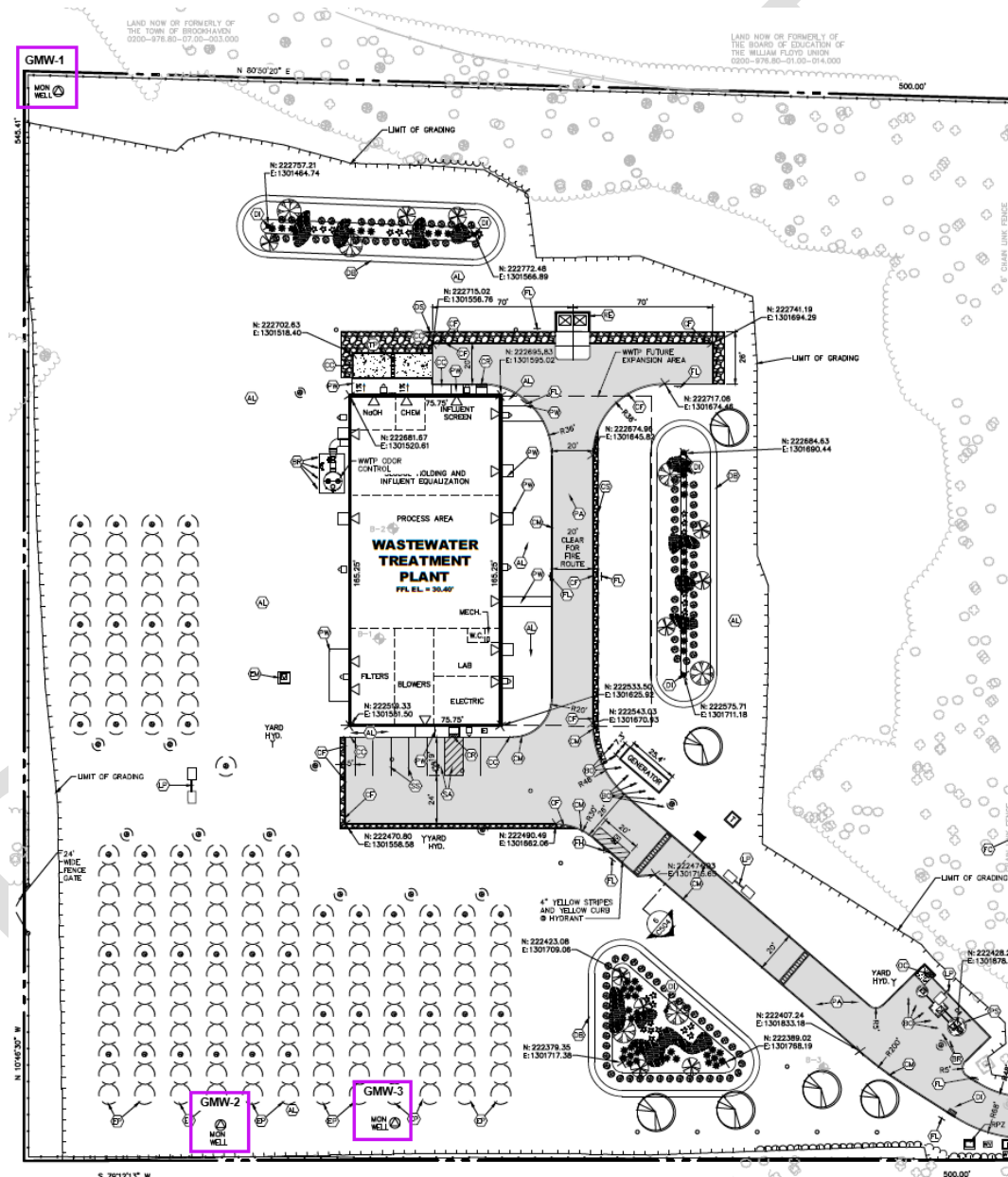
¹ 6 NYCRR 750-1.14 (a)

² 6 NYCRR 750-2.10 (c)

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:



[illegible]

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) |
| 9. Additional conditions applicable to a POTW | 6 NYCRR 750-2.9 |
- 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)

2. Notification Requirement for POTWs

All POTWs shall provide adequate notice to the Department and the USEPA of the following:

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

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

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

G. Sludge Management

The permittee shall comply with all applicable requirements of 6 NYCRR Part 360 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. Discharge Monitoring Reports (DMRs): Completed DMR forms shall be submitted for each one (1) month reporting period in accordance with 6 NYCRR 750-2.5(e). NYSDEC has made available the DMR Manual on the website as a reference to assist permittees with completing DMR's.

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by DEC. Instructions on the use of NetDMR can be found at: [How To Complete And Submit Discharge Monitoring Reports \(DMRs\) - NYSDEC](#). **Hardcopy paper DMRs will only be accepted if a waiver from the electronic submittal requirements has been granted by DEC to the facility.**

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

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

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

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

Phone: (518) 402-8111

Department of Environmental Conservation
Regional Water Engineer, Region 1
50 Circle Road, Stony Brook, New York, 11790-3409 Phone: (631) 444-0405

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

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	Required Action	Due Date
001	<u>EMERGING CONTAMINANT SHORT-TERM MONITORING</u> The permittee shall collect grab samples of both the influent and effluent from the facility's treatment system(s) associated with the identified outfall for Per- and Polyfluoroalkyl Substances (PFAS) utilizing EPA analytical method 1633 and 1,4-Dioxane (1,4-D) utilizing EPA Method 8270D SIM or 8270E SIM. The samples must represent normal discharge conditions and treatment operations and shall be obtained on a quarterly basis for at least four (4) consecutive quarters. The results shall be reported through the "Emerging Contaminants Survey for POTWs" found at: Emerging Contaminants In NY's Waters - NYSDEC. Please utilize the link above to access the chain of custody template, monitoring template for laboratories, and monitoring template instructions for laboratories. For each month, please fill out the chain of custody template to reflect the required analytical sampling for each outfall using the correct sample naming convention (example provided in the form). The chain of custody, monitoring template, and monitoring template instructions should then be provided to the laboratory. The laboratory should complete the monitoring template, utilizing EQUIS EDD format, for each month of sampling. The completed chain of custody, monitoring template, and PDF laboratory reports should be submitted with the Emerging Contaminants Survey. The permittee shall initiate track down of potential sources by completing the "Emerging Contaminants Investigation Checklist for POTWs" available at the above link. The DEC may periodically request updates or additional monitoring to check progress on track down investigations. Elements of the checklist may be used as permit conditions in future permit modifications.	Commencement of Operation of WWTP + 18 months Within 90 days of DEC written notification
	<u>WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM</u> The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR.	December DMR (January 28 th)
	<u>ANNUAL FLOW CERTIFICATION</u> The permittee shall submit an Annual Flow Certification form each year in accordance with 750-2.9(c)(4). The form shall be attached to the February DMR or submitted through nForm.	February DMR (March 28 th)
	<u>ANNUAL EMERGENCY RESPONSE PLAN CERTIFICATION</u> The permittee shall submit a certification of compliance with the Emergency Response Plan requirements in accordance with 6 NYCRR 750-2.9(d) and (f). The form shall be submitted electronically using a NYSDEC approved form.	March 28 th , each year
	<u>ANNUAL CYBERSECURITY CONTROLS CERTIFICATION</u> The permittee shall submit a certification of compliance with the cybersecurity controls requirements in accordance with 6 NYCRR 750-2.9(e) and (f). The form shall be submitted electronically using a NYSDEC approved form.	March 28 th , each year

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

- F. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- G. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.
- H. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- I. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- J. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

SPDES Permit Fact Sheet

Town of Brookhaven

Mastic Beach Sewer District

WWTP

NY0313254



Contents

Summary of Permit Changes	3
Administrative History	3
Facility Information	3
Site Overview	4
Enforcement History	6
Existing Effluent Quality	6
Receiving Water Information	6
Critical Receiving Water Data	6
Permit Requirements	6
Antidegradation	6
Schedule of Compliance	6
Emerging Contaminant Monitoring	7
Schedule of Additional Submittals	7
OUTFALL AND RECEIVING WATER SUMMARY TABLE	8
POLLUTANT SUMMARY TABLE	8
Outfall 001	8
Appendix: Regulatory and Technical Basis of Permit Authorizations	10
Regulatory References	10
Outfall and Receiving Water Information	10
Existing Effluent Quality	10
Permit Requirements	11

Summary of Permit Changes

A new State Pollutant Discharge Elimination System (SPDES) permit has been drafted for the Mastic Beach Sewer District WWTP.

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

- | | |
|-----------|--|
| 12/5/2024 | Hayduk Engineering, on behalf of the Town of Brookhaven, submitted an Engineering Report for the Mastic Beach Sewer District WWTP and Sanitary Collection System proposed project. |
| 2/12/2025 | New York State Department of Environmental Conservation (DEC) issued sent comments to Hayduk Engineering consultants. |
| 2/26/2025 | Hayduk Engineering submitted response and revised engineering report to the Department. |
| 3/24/2025 | New York State Department of Environmental Conservation (DEC) issued an Approval Letter for the engineering report. |
| 3/23/2026 | Hayduk Engineering submitted a NY-2A permit application, approved Engineering Report, and additional required documents. |
| 4/21/2026 | Department of Environmental Permits issued a Notice of Incomplete Application and requested additional documents from the applicant. |
| 5/7/2026 | Hayduk Engineering submitted a revised NY-2A permit application, approved Engineering Report, and additional required documents. |
| 5/7/2026 | The Department sent comments on the site plans for the wastewater treatment plant and collection system plans to Hayduk Engineering consultants. |

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 proposed publicly owned treatment works (POTW) that will receive flow from approximately 2,300 domestic users, with effluent consisting of treated sanitary sewage. The collection system will consist of approximately two (2) miles of separate sanitary sewer system and will utilize a combination of gravity and low-pressure sewer systems. The system will be owned and maintained by the municipality. The facility will not have any significant industrial users (SIUs).

The proposed 225,000 GPD treatment plant will consist of:

- Preliminary Treatment: Screening, Grit Removals, and Equalization Tanks – Two (2) Units
- Primary and Secondary Treatment: Sequenced Batch Reactors – Three (3) Units
- Tertiary Treatment: Polishing Filtration – Two (2) Units
- Odor Control: System will include two (2) units with two stage activated carbon media and potassium permanganate drip feed mechanisms

Sludge will be stored in two (2) aerated sludge holding tanks where the supernatant is sent to the headworks and the solids will be pumped and hauled by a contractor.

The primary outfall (Outfall 001) will be discharged to groundwater via leaching pools. There will be a collection of 240 leaching pools that are approximately 3,500 feet from the shoreline.

The facility will have three (3) ground monitoring wells (GMWs) installed by a NYS Licensed well driller: GMW 1 will be up gradient of effluent disposal facilities to analyze mounding impact of the water table, GMW 2, and GMW 3 will be down gradient of the furthest effluent disposal facilities to monitor the impact of the effluent recharging.

The facility accepts wastewater from the following municipalities:

Municipality	POSS # or SPDES #	Collection System
Town of Brookhaven – Mastic Beach Sewer District (Proposed)	NY0313254	Separate

Site Overview



Figure 1: Aerial view of the Mastic Beach WWTP site.

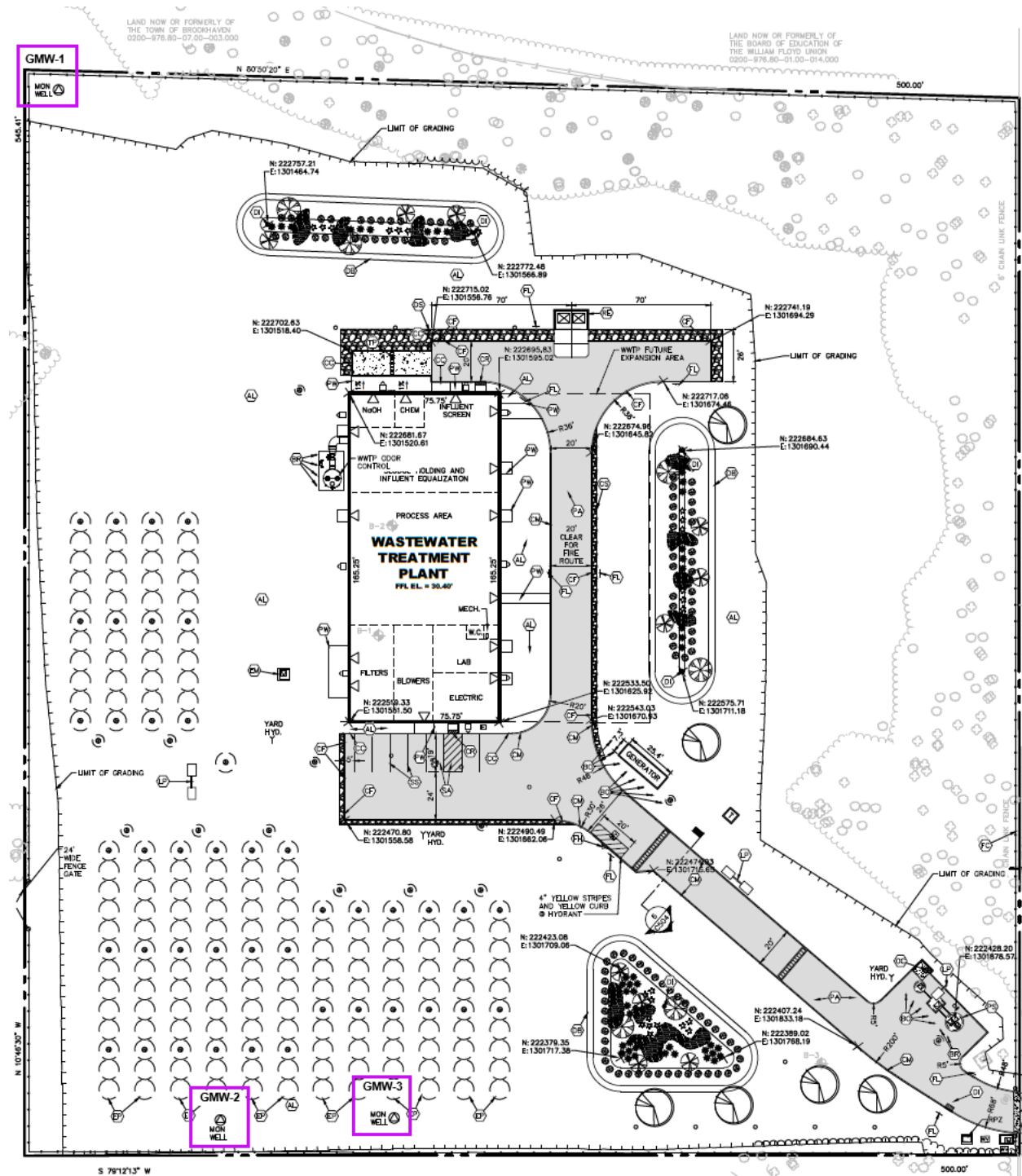


Figure 2: Proposed WWTP site and groundwater monitoring well (GMW) locations.

Enforcement History

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

Existing Effluent Quality

The [Pollutant Summary Table](#) presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from the application submitted by the permittee. [Appendix Link](#)

Receiving Water Information

The facility proposes to discharge via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	4952	Treated Sanitary Sewage	Groundwater, Class GA

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

Critical Receiving Water Data

The facility discharges to groundwater, Class GA, via leaching pools. The effluent limitations for Outfall 001 were developed with no dilution, based on groundwater quality standards found in 6 NYCRR 703.5 and TOGS 1.1.1 (Part I) and groundwater effluent limitations contained in 6 NYCRR 703.6 and TOGS 1.1.1 (Part II).

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](#).

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](#)

Schedule of Compliance

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

- Report, Plans, Specification, and Construction Schedule
- Progress Reports
- Design Documents
- Construction Completion
- Notification of Start Date – “Start-Up”

¹ As prescribed by 6 NYCRR Part 617

² Pursuant to 6 NYCRR 750-1.14

Emerging Contaminant Monitoring

Pursuant to 6 NYCRR 750-1.13(b), the permit includes a short-term monitoring program listed in the Schedule of Additional Submittals to evaluate the influent and effluent discharge levels of Per- and Polyfluoroalkyl Substances (PFAS) and 1,4-Dioxane. This monitoring program is consistent with guidance released in EPA guidance memos dated April 28, 2022, and December 5, 2022.

The DEC will review the monitoring results and pursuant to 6 NYCRR 750-2.1(i) may notify the permittee of the need for further monitoring to identify potential sources as specified in the Emerging Contaminants Investigation Checklist for POTWs to determine whether cause exists to modify the permit to incorporate a pollutant minimization program per 6 NYCRR 750-1.14(f).

[Appendix Link](#)

Schedule of Additional Submittals

Emerging Contaminant Short-term Monitoring

Pursuant to 6 NYCRR 750-1.13(b), the permit includes a short-term monitoring program. On a quarterly basis for at least four consecutive quarters, the permittee shall collect, under normal discharge conditions, grab samples of both the influent and effluent for PFAS and 1,4-dioxane analysis using EPA Method 1633/1633A and EPA Method 8270D SIM or 8270E SIM, respectively. Results must be reported through the “Emerging Contaminants Survey for POTWs” and on the provided monitoring template, which can be found at this link: [Emerging Contaminants In NY's Waters - NYSDEC](#). Please see [Emerging Contaminant Monitoring](#) above for more information.

WTC Annual Report

In accordance with 6 NYCRR 750-2.1(i), the permit requires submission of an annual report each year that the permittee uses and discharges WTCs. The permittee must summarize all WTC use for the prior calendar year, January 1 through December 31, and attach it either to the December DMR or annual monitoring report required by the permit. More information is located on the DEC's website under [SPDES Permitting of Water Treatment Chemicals](#).

Annual Flow Certification

In accordance with 6 NYCRR 750-2.9(c)(4), the chief fiscal officer of the municipality shall submit an Annual Flow Certification form, located on DEC's website at [Wastewater forms](#), as an attachment to its February DMR or through nForm. The municipal chief fiscal officer may also submit an explanation for a deviation, where compliance certification cannot be provided.

Annual Emergency Response Plan Certification

In accordance with 6 NYCRR 750-2.9(d), the principal executive officer or ranking elected official of the municipality or a duly authorized representative of that person (as defined in 6 NYCRR 750-2.9(f)) shall submit an Annual Emergency Response Plan Certification form electronically using a NYSDEC approved form.

Annual Cybersecurity Controls Certification

In accordance with 6 NYCRR 750-2.9(e), the principal executive officer or ranking elected official of the municipality or a duly authorized representative of that person (as defined in 6 NYCRR 750-2.9(f)) shall submit an Annual Cybersecurity Controls Certification form electronically using a NYSDEC approved form.

Permittee: Town of Brookhaven
 Facility: Mastic Beach Sewer District WWTP
 SPDES Number: NY0313254
 USEPA Non-Major/Class 07 Municipal

Date: September 30, 2026 v.1.41
 Permit Writer: Liz Morales
 Water Quality Reviewer: -
 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	Hardness (mg/L)	1Q10 (MGD)	7Q10 (MGD)	30Q10 (MGD)	Critical Effluent Flow (MGD)	Dilution Ratio		
												A(A)	A(C)	HEW
001	40° 46' 17.2" N	72° 51' 17.1" W	Groundwater	GA	-	17/01	-	-	-	-	0.225	-	-	-

POLLUTANT SUMMARY TABLE

Outfall 001

Outfall #	001	Description of Wastewater: Sanitary Sewage													
		Type of Treatment: Preliminary Treatment, SBRs, Polishing Filtration, and Odor Control													
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: This is a proposed facility without a current discharge; therefore, existing sample data was not provided. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent. The permit limits applied as part of this permit review are bolded.															
Flow Rate	MGD	Monthly Avg	0.225	- Actual Average	0/0	0.225	Design Flow	No alterations that will impair the waters for their best usages.				703.2	-	TBEL	
	The flow limit has been set at the design flow of the wastewater treatment facility.														
pH	SU	Minimum	-	- Actual Min	0/0	6.0	TOGS 1.3.3	-	-	6.5 – 8.5	Range	-	703.6	-	WQBEL
		Maximum	-	- Actual Max	0/0	9.0		-	-	-	-	-	-		
Consistent with 6 NYCRR Part 703.6 and TOGS 1.1.1 and is protective of the water quality.															
Temperature	°F	Daily Max	-	- Actual Max	0/0	Monitor	750-1.13 Monitor	-	-			704.2	-	Monitor	
	Consistent with 6 NYCRR 750-1.13(a), monitoring is required to provide data that may be used in future permitting decisions.														

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: Town of Brookhaven
 Facility: Mastic Beach Sewer District WWTP
 SPDES Number: NY0313254
 USEPA Non-Major/Class 07 Municipal

Date: September 30, 2026 v.1.41
 Permit Writer: Liz Morales
 Water Quality Reviewer: -
 Full Technical Review

Outfall #	001	Description of Wastewater: Sanitary Sewage													
		Type of Treatment: Preliminary Treatment, SBRs, Polishing Filtration, and Odor Control													
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		
Total Dissolved Solids (TDS)	mg/L	Monthly Avg	-	-	0/0	-	-	-	-	1,000	-	-	703.6	-	WQBEL
TDS is being added in accordance with 6 NYCRR Part 703.6 and is protective of the water quality. The limitation applies to groundwater dischargers in Nassau and Suffolk County.															
Total Nitrogen (as N)	mg/L	Monthly Avg	-	-	0/0	8	Article 17-0809 BAT	-	-	10	-	-	703.6	-	TBEL
In accordance with 6 NYCRR Part 703.6, an WQBEL of 10-mg/l for Total Nitrogen (as N) is protective of water quality for discharges to groundwater within Nassau and Suffolk Counties.															
The New York State Environmental Conservation Law (ECL), Article 17-0809, requires that discharges located within Nassau and Suffolk Counties that are located in Special Groundwater Protection Areas or where the discharge will impact marine waters within 10-years or less, must incorporate the Best Available Technology (BAT) that is economically feasible and cost effective with consideration to direct and avoided economic and environmental costs and with special emphasis on reducing nitrogen pollution.															
To satisfy the BAT criteria described in Article 17-0809 of the ECL, and as part of this application, an alternatives analysis was submitted as part of the Basis of Design Engineering Report which evaluated the cost effectiveness of different advanced nitrogen reducing treatment technologies. The analysis demonstrated that the selected technology is capable of achieving an effluent limit of 8-mg/l for Total Nitrogen (as N), therefore, a TBEL based on BAT has been established at 8-mg/l. Since the TBEL is more stringent than the WQBEL, the TBEL of 8-mg/l for Total Nitrogen (as N) is proposed for this permit.															
Total Kjeldahl Nitrogen	mg/L	Monthly Avg	-	-	0/0	-	-	-	-	-	-	-	703.2	-	Monitor
This is a parameter of concern in the counties of Nassau and Suffolk and needed in calculation of Total Nitrogen. Consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions.															
Total Residual Chlorine	mg/L	Daily Max	-	-	0/0	2.0	TOGS 1.3.3	-	-	-	-	-	-	-	TBEL
Routine sampling is not required until wastewater disinfection is deemed necessary by the Department of Health Services acting as an agent of the NYSDEC, for control of odors or other health related purposes.															

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

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 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) for Discharges to Groundwater

TBELS aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. ECL section 17-0509, and 6 NYCRR 750-1.11 require technology-based controls for POTWs discharging to surface waters, known as secondary treatment. The applicable regulations are specified in 40 CFR 133.102 and 6 NYCRR 750-1.11. These and other requirements are summarized in TOGS 1.3.3 and below:

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)

- Secondary treatment requirements of 40 CFR Part 133 will typically not be included unless the facility discharges to a surface water prior to entering the groundwater or if, in the permit writer's judgement, limitations are necessary to prevent nuisance conditions or enhance plant operation.
- Since nitrogen is a component of all domestic wastewater, permits for facilities discharging 30,000 GPD or greater include effluent limitations for Nitrate of 20 mg/L (as N). Groundwater discharges in Nassau and Suffolk Counties are required to achieve an effluent standard for Total Nitrogen of 10 mg/L (as N).
- Disinfection will typically not be required for discharges to groundwater unless local public health concerns exist due to exposure or contact with effluent. When this occurs, disinfection requirements and effluent limitations for chlorine residual are developed in accordance with TOGS 1.3.3.

Water Quality-Based Effluent Limitations (WQBELs) for Discharges to Groundwater

The procedure for developing WQBELs includes identifying the pollutants present in the discharge(s), identifying water quality criteria applicable to these pollutants, determining if WQBELs are necessary (reasonable potential), and calculating the WQBELs. For groundwater discharges, if the expected concentration of the pollutant of concern in the receiving water may exceed the ambient groundwater quality standard or guidance value, then there is reasonable potential that the discharge may cause or contribute to a violation of the water quality, and a WQBEL for the pollutant is required.

WQBELs for groundwater discharges are based on the groundwater effluent limits set forth in 6 NYCRR Part 703 (Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations) except as noted in 6 NYCRR 702.21. TOGS 1.1.1 provides a listing of groundwater effluent limitations for substances having an ambient water quality standard or guidance value. Groundwater effluent limitations are applied at the point of discharge to the groundwater distribution system.

For land treatment systems with no accessible final sampling points, such as constructed wetland treatment systems or buried sand filters, permit limitations for groundwater discharges are typically based on ambient groundwater quality standards or guidance values applied at representative down gradient monitoring well(s). Limitations at the downgradient sampling point are set at the Class GA ambient groundwater standards, rather than at the groundwater effluent limits promulgated under 6 NYCRR 703.6, as compliance is determined based upon the concentrations present in the downgradient groundwater monitoring well at the groundwater interface.

Class GA standards are established for the protection of sources of drinking water designated as Health (Water Source) or H(WS) in TOGS 1.1.1. As such, effluent limitations based on aquatic life criteria and WET testing requirements are not applicable to groundwater discharges.

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.

For groundwater discharges, monitoring of downstream wells may be included to demonstrate compliance with ambient groundwater quality standards. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required.

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.

Emerging Contaminants

Emerging Contaminants, such as Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), and 1,4-Dioxane (1,4-D), have been used in a wide variety of consumer and industrial products as well as in manufacturing processes for decades. Based on available research, water quality assessments for 1,4-D will follow existing WQBEL development. PFOA and PFOS do not break down easily; therefore, their presence in wastewater can remain a concern for years following their discontinued use. As the science surrounding these contaminants is still evolving, additional monitoring is needed to better understand potential sources and background levels. For more information on emerging contaminants, please see the DEC Division of Water web page: [Emerging Contaminants In NY's Waters - NYSDEC](#).