



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

TOWN OF NORTH HAVEN	)	MAINE POLLUTANT DISCHARGE
NORTH HAVEN, KNOX COUNTY, MAINE	)	ELIMINATION SYSTEM PERMIT
DRINKING WATER TREATMENT PLANT	)	AND
ME0102482	)	WASTE DISCHARGE LICENSE
W008142-5S-E-R	)	RENEWAL
APPROVAL	)	

In compliance with the applicable provisions of *Pollution Control*, 38 M.R.S. §§ 411 – 424-C, *Water Classification Program*, 38 M.R.S. §§ 464 – 470 and *Federal Water Pollution Control Act*, Title 33 U.S.C. § 1251 *et seq*, and applicable regulations, the Department of Environmental Protection (Department) has considered the application of The Town of North Haven (permittee), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On June 21, 2023, the Department accepted as complete an application from the permittee for renewal of Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102482/Waste Discharge License (WDL)#W008142-5S-D-R (permit) which was issued on July 19, 2018, for a five-year term. The July 19, 2018, permit authorized the discharge of a monthly average flow of 2,000 gallons per day (GPD) and a daily maximum flow of 16,000 GPD of wastewater associated with drinking water treatment and filter cleaning (backwash) from a municipal drinking water treatment plant to a palustrine forested/scrub-shrub wetland, Class B, in North Haven, Maine.

PERMIT SUMMARY

This permit carries forward all the terms and conditions of the previous permit.

CONCLUSIONS

BASED on the findings in the attached PROPOSED DRAFT Fact Sheet dated September 5, 2025, and subject to the Conditions listed below, the Department makes the following conclusions:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
3. The provisions of the State's antidegradation policy, *Classification of Maine waters*, 38 M.R.S. §464(4)(F), will be met, in that:
 - (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected.
 - (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected.
 - (c) Where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification.
 - (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and
 - (e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
4. The discharge will be subject to effluent limitations that require application of best practicable treatment as defined in *Conditions of Licenses*, 38 M.R.S. § 414-A(1)(D).

ACTION

THEREFORE, the Department APPROVES the above noted application of the TOWN OF NORTH HAVEN to discharge a monthly average flow of 2,000 GPD and a daily maximum flow of 16,000 GPD of drinking water treatment plant filter backwash to a palustrine forested/scrub-shrub wetland, Class B, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. “*Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable to All Permits*,” revised July 1, 2002, copy attached.
2. The attached Special Conditions, including effluent limitations and monitoring requirements.
3. This permit and the authorization to discharge become effective upon the date of signature below and expires at midnight five (5) years from the effective date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the authorization to discharge and the terms and conditions of this permit and all modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR Ch. 2(21)(A) (effective September 15, 2024)]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____ 2025.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
For Melanie Loyzim, Commissioner

Date of initial receipt of application: June 20, 2023

Date of application acceptance: June 21, 2023

This Order prepared by Rod Robert, BUREAU OF WATER QUALITY

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge **drinking water filter backwash from Outfall #001A**^(1,2) to a palustrine forested/scrub-shrub wetland. Such discharges must be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly <u>Average</u>	Daily <u>Maximum</u>	Monthly <u>Average</u>	Daily <u>Maximum</u>	Measurement <u>Frequency</u>	Sample <u>Type</u>
Flow [51500]	2,000 GPD [03]	16,000 GPD [03]	---	---	Daily ⁽¹⁾ [01/01]	Calculated [CA]
TSS [00530]	0.5 lb/day [26]	1.0 lb/day [26]	30 mg/l [19]	60 mg/l [19]	1/Month [01/30]	Composite ⁽²⁾ [CP]
Settleable Solids [00545]	---	---	---	0.3 ml/L [25]	1/Month [01/30]	Grab [GR]
Sludge Depth ⁽³⁾ [95499]	---	Report, inches [61]	---	----	1/Year [01/YR]	Measure [MS]
pH [00400]	---	---	---	6.0-9.0 S.U. [12]	1/Month [01/30]	Grab [GR]

The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports.

FOOTNOTES: See page 5 of this permit for applicable footnotes.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

FOOTNOTES:

1. **Sampling** – All effluent monitoring must be conducted at Outfall #001A following the last treatment unit, prior to discharging to the receiving water. All monitoring must be conducted so as to be representative of end-of-pipe effluent characteristics. Any change in sampling location must be approved by the Department in writing. The permittee must conduct sampling and analysis in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services for wastewater testing. Samples that are sent to a POTW pursuant to *Waste discharge licenses*, 38 M.R.S. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Accreditation Rules*, 10-144 CMR ch. 263 (effective date March 15, 2023). Laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of 10-144 CMR ch. 263. If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR).

In accordance with 40 C.F.R. § 122.44(i)(1)(iv), the licensee must monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 or required under 40 C.F.R. chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is "sufficiently sensitive" when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 C.F.R. Part 136 or required under 40 C.F.R. chapter I, subchapter N or O for the measured pollutant or pollutant parameter. The term "minimum level" refers either to the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in the following ways: they may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor. Monitoring of effluent flow is required on a daily basis but only when discharges occur.

2. **Composite Samples:** The permittee must composite four equally spaced grab samples collected during the discharge event.
3. **Sludge:** The depth of sludge must be measured in the month of **November** of each year. See Special Condition G of this permit.

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS

1. The permittee must not discharge effluent that contains a visible oil sheen, foam or floating solids at any time which would impair the uses designated for the classification of the receiving waters.
2. The permittee must not discharge effluent that contains materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the uses designated for the classification of the receiving waters.
3. The permittee must not discharge effluent that causes visible discoloration, taste, turbidity, radioactivity or other properties in the receiving waters that cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class.
4. The permittee must not discharge effluent that lowers the quality of any classified body of water below such classification or lowers the existing quality of any body of water if the existing quality is higher than the classification.

C. MONITORING AND REPORTING

Electronic Reporting

NPDES Electronic Reporting, 40 C.F.R. 127, requires MEPDES permit holders to submit monitoring results obtained during the previous month on an electronic discharge monitoring report to the regulatory agency utilizing the USEPA electronic system.

Electronic DMRs submitted using the USEPA NetDMR system must be:

1. Submitted by a facility authorized signatory; and
2. Submitted no later than **midnight on the 15th day of the month** following the completed reporting period.

Documentation submitted in support of the electronic DMR may be attached to the electronic DMR. Documentation submitted electronically to the Department in support of the electronic DMR must be submitted no later than midnight on the 15th day of the month following the completed reporting period.

SPECIAL CONDITIONS

D. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee must notify the Department of the following:

1. Any substantial change in the volume or character of pollutants being introduced into the wastewater collection system.
2. For the purposes of this section, adequate notice must include information on:
 - (a) the quality and quantity of wastewater introduced to the wastewater collection and treatment system; and
 - (b) any anticipated impact of the change in the quantity or quality of the wastewater to be discharged from the treatment system.

E. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on June 21, 2023; 2) the terms and conditions of this permit; and 3) only from Outfall #001A. Discharges of wastewater from any other point source are not authorized under this permit and must be reported in accordance with Standard Condition D(1)(f), *Twenty-four-hour reporting*, of this permit.

F. OPERATION & MAINTENANCE (O&M) PLAN

This facility must have a current written comprehensive Operation & Maintenance (O&M) Plan. The plan must provide a systematic approach by which the permittee must always, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

By December 31 of each year, or within 90 days of any process changes or minor equipment upgrades, the permittee must evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the wastewater treatment facility to ensure that it is current. The O&M Plan must be always kept on-site and made available to Department and EPA personnel upon request.

Within 90 days of completion of new or substantial upgrades of the wastewater treatment facility, the permittee must submit the updated O&M Plan to their Department inspector for review and comment.

SPECIAL CONDITIONS

G. SETTLING LAGOON SLUDGE DEPTH MONITORING

The permittee must monitor and report to the Department by December 31, each year, the amount of sludge in the settling lagoon. The permittee must remove and properly dispose of accumulated sludge when the average depth reaches 18 inches, or when accumulated sludge interferes with the lagoon function, or contributes to degraded effluent quality. Further, the permittee must under no circumstances allow sludge to be discharged to the receiving wetland.

H. REOPENING OF PERMIT FOR MODIFICATIONS

In accordance with *Conditions of Licenses*, 38 M.R.S. Section 414-A(5) and upon evaluation of the test results in the Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time and with notice to the permittee, modify this permit to: 1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded; (2) require additional monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

I. SEVERABILITY

If any provision, or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit must remain in full force and effect and must be construed and enforced in all respects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

**MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
MAINE WASTE DISCHARGE LICENSE**

FACT SHEET

September 5, 2025

MEPDES PERMIT NUMBER: **ME0102482**
WASTE DISCHARGE LICENSE: **W008142-5S-E-R**

NAME AND ADDRESS OF APPLICANT:

**Town of North Haven
P.O. Box 400
North Haven, Maine 04853**

COUNTY: **Knox County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**North Haven Drinking Water Treatment Plant
94 Pumping Station Road
North Haven, Maine**

RECEIVING WATER / CLASSIFICATION: **Palustrine forested/scrub-shrub wetland,
Class B**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Glen Marquis
(207) 867-2333
glenmarquis@yahoo.com**

1. APPLICATION SUMMARY

- a. Application: On June 21, 2023, the Department of Environmental Protection (Department) accepted as complete an application from the permittee for renewal of Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102482/Waste Discharge License (WDL)#W008142-5S-D-R ("permit") which was issued on July 19, 2018, for a five-year term. The July 19, 2018, permit authorized the discharge of a monthly average flow of 2,000 gallons per day (GPD) and a daily maximum flow of 16,000 GPD of wastewater associated with drinking water treatment and filter cleaning (backwash) from a municipal drinking water treatment plant to a palustrine forested/scrub-shrub wetland, Class B, in North Haven, Maine.

1. APPLICATION SUMMARY (cont'd)

- b. Terms and Conditions: This permit carries forward all the terms and conditions of the previous permit.
- c. History: The most recent licensing/permitting actions include the following:

March 21, 2002 – The Department's Division of Land Resource Regulation approved the permittee's Permit by Rule application (#29334) for replacement of an existing facility intake pipe in Fresh Pond with a new intake pipe as part of the facility upgrade.

June 18, 2002 – The Department issued a new WDL (W008142-5S-A-N) and MEPDES permit (ME0102482) authorizing the discharge from the permittee to the wetland.

June 15, 2007 – The Department issued WDL/MEPDES Permit #W008142-5S-B-R /ME0102482 for a five-year term.

August 2, 2012 – The Department issued WDL/MEPDES Permit #W008142-5S-C-R /ME0102482 for a five-year term.

March 28, 2017 – The permittee submitted a complete and timely application for renewal of WDL#W008142-5S-C-R. The application was accepted as complete on March 29, 2017, and assigned WDL#W008142-5S-D-R.

July 19, 2018 – The Department issued WDL/MEPDES Permit #W008142-5S-D-R /ME0102482 for a five-year term.

2. PERMIT SUMMARY

- a. Source Description/ Drinking Water Treatment Process:

The permittee operates a drinking water treatment plant on the shore of Fresh Pond in North Haven. The existing operation extracts pond water through two intake pipes, a four-inch diameter poly-vinyl chloride pipe and a six-inch diameter cast iron pipe, from Fresh Pond at depths of eight feet. Raw water is ozonated, passed through a carbon roughing filter, slow sand filter and limestone contactor as described below. The water is then treated with soda ash, ammonium sulfate and sodium hypochlorite and delivered through a distribution system to approximately 128 year-round and 170 summer services. The permittee discharges filter backwash supernatant from the settling lagoon to an adjacent palustrine forested/scrub-shrub wetland.

2. PERMIT SUMMARY (cont'd)

The slow sand process is contained in four aluminum vessels, each containing three distinct treatment elements: roughing filtration, slow sand filtration, and limestone contact. The roughing filtration and slow sand filtration equipment must be periodically cleaned to remove accumulated particulates and maintain treatment efficiency.

Roughing Filtration - The roughing filter is a multi-media filter containing two layers of silica sand (300 mm in thickness) and one layer of granular activated carbon (GAC) (450 mm in thickness) designed for up-flow filtration. It is designed to remove large particles, debris, algae, and protozoans from the source water. The GAC serves to protect against any inadvertent over feed of ozone and to remove chlorine during the backwash cycle. The ozone must be completely consumed prior to the slow sand process to assure that the biological treatment activity in the subsequent sand bed is not destroyed. An ozone detector provides continuous monitoring of ozone residual in the slow sand influent to assure that the ozone is not overfed and present in the waste stream. The roughing filter is periodically cleaned using a high rate upflow backwash with potable water from the clearwell. Wastewater is discharged to the facility treatment lagoon.

Slow Sand Filtration – Following the roughing filters, water flows to the slow sand filters. This stage involves filtration at a very slow rate down through a sand filter utilizing biological treatment to remove any microbial contamination from the surface water supply. The sand bed consists of 4 layers of filter sand and supporting gravel. After an initial filter ripening period, an organic layer forms on the filter surface serving as both a biological and physical layer for removing microbial contaminants. The organic layer is removed approximately bi-monthly using a surface wash system. The surface wash system consists of flowing small amounts of water over the filter surface while the sand surface is manually cleaned with high pressure flow from a handheld garden hose. The deposits are primarily organic in nature and washwater consists of water that has passed from the backwashing activity on the rough filter unit. Filtered water during the initial ripening period (filter to waste), as well as filter wash water, is discharged to the facility treatment lagoon. Disposal of the “filter to waste” water is designed to eliminate the potential for carryover of particulate material to the storage and distribution system.

- b. Limestone Contactor – After filtration, water flows up through a limestone contactor where pH is adjusted from 5.5 Standard Units (S.U). to approximately 8.0 S.U. to provide corrosion control within the distribution system. The limestone contactor is a vessel containing a height of 1,100 mm of limestone chips ranging in size from 8-12 mm. Treated water then flows by gravity to a 50,000-gallon clearwell, located beneath the floor of the filtration building, where sodium hypochlorite is added for disinfection resulting in a free chlorine concentration of 1-1.5 mg/L. An emergency overflow pipe from the clearwell outlets to the treatment lagoon. Finished water is pumped from the clearwell to a 285,000-gallon storage tank on Mount Nebo and to the distribution system to the permittee's customers.

2. PERMIT SUMMARY (cont'd)

c. Wastewater Treatment:

Filter backwashing is done manually by the permittee based on observed loss of head pressure in the filtering system components. Process waste waters from the roughing filtration and slow sand filtration processes are routed to a 120,000-gallon earthen lagoon for settling and flow equalization. The frequency and interval of wastewater discharges to the lagoon from the treatment processes are estimated as follows:

- i. Roughing Filter Backwash Flow – 12,000 gallons at a 6-month interval
- ii. Slow Sand Wash water – 33,000 gallons per 4 filters at a two-month interval
- iii. Filter-to-Waste (slow sand) – 60,000 gallons per 4 filters at two-month interval.

The flow is metered from the lagoon to the downgradient palustrine forested/scrub-shrub wetland area using a decant stop log gate. The lowest 18 inches of the gate consists of a fixed plate to prevent the inadvertent discharge of settled materials. The plate must only be removed if necessary for maintenance of the lagoon. From the outlet gate, flows are discharged through a 12-inch diameter ductile iron pipe to a riprap apron/level spreader, which is located upland immediately adjacent to Wetland "A". The riprap/level spreader is 10 feet long by 3 feet wide at the top and 10 feet wide at the base and ensures that flows are introduced to the wetland as sheet flow to prevent channel erosion.

Settled materials in the lagoon system are disposed of at an approved solid waste disposal facility or through spreading on agricultural fields, subject to approval by the Department's Bureau of Remediation and Waste Management.

Pursuant to Special Condition G, *Settling Lagoon Sludge Depth Monitoring*, of this permit, the permittee must monitor and report the amount of sludge in the settling lagoon to the Department by December 31 each year. The permittee must remove and properly dispose of accumulated sludge when the average depth reaches 18 inches. Further, the permittee must under no circumstances allow sludge to be discharged to the receiving wetland.

3. CONDITIONS OF PERMITS

Conditions of licenses, 38 M.R.S. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require the application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and Department rule *Surface Water Toxics Control Program*, 06-096 CMR Ch.530 (effective March 21, 2012), require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR Ch. 584 (effective February 16, 2020), and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

The permittee discharges wastewater to a palustrine forested/scrub-shrub wetland. Analysis of the wetland indicates that its hydrology is provided through a combination of groundwater discharge to the surface and groundwater recharge from surface flows expressed seasonally through saturation of soils as well as periodic inundation. Based on the wetland's hydrologic relationship with groundwater, the Department has determined that the palustrine forested/scrub-shrub wetland at the point of discharge is best classified as a Class B water pursuant to *Classification of minor drainages*, 38 M.R.S., § 468. *Standards for classification of fresh surface waters*, 38 M.R.S., § 465 (3) describes the standards for Class B waters as follows:

3. *Class B waters. Class B shall be the 3rd highest classification.*

A. Class B waters must be of such quality that they are suitable for the designated uses of drinking water supply after treatment; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as habitat for fish and other aquatic life. The habitat must be characterized as unimpaired.

*B. Class B waters must be of sufficient quality to support all aquatic species indigenous to those waters without detrimental changes in the resident biological community. The dissolved oxygen content of Class B waters may not be less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the one-day minimum dissolved oxygen concentration may not be less than 8.0 parts per million in identified fish spawning areas. Between April 15th and October 31st, the number of *Escherichia coli* bacteria in these waters may not exceed a geometric mean of 64 CFU or MPN per 100 milliliters over a 90-day interval or 236 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval.*

C. Discharges to Class B waters may not cause adverse impact to aquatic life in that the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community.

(1-A) For the purpose of allowing the discharge of aquatic pesticides or chemicals approved by the department and conducted by the department, the Department of Inland Fisheries and Wildlife or an agent of either agency to restore resident biological communities affected by an invasive species, the department may find that the discharged effluent will not cause adverse impact to aquatic life as long as the materials and methods used do not cause a significant loss of any nontarget species and allow restoration of nontarget species. The department may find that an unavoidable, temporary loss of nontarget species does not constitute a significant loss of nontarget species.

4. RECEIVING WATER QUALITY STANDARDS (cont'd)

(2) For the purpose of allowing the discharge of aquatic pesticides approved by the department for the control of mosquito-borne diseases in the interest of public health and safety, the department may find that the discharged effluent will not cause adverse impact to aquatic life as long as the materials and methods used provide protection for nontarget species. When the department issues a license for the discharge of aquatic pesticides authorized under this subparagraph, the department shall notify the municipality in which the application is licensed to occur and post the notice on the department's publicly accessible website.

5. RECEIVING WATER QUALITY CONDITIONS

Wetlands on and adjacent to the project site were delineated by S.W. Cole Inc. according to methods established in the US Army Corps of Engineers' 1987 Wetland Delineation Manual. S.W. Cole submitted a wetland delineation report dated October 6, 1999, and supplemented October 9, 2001, as well as delineation sample plot logs to document their analyses. Two wetlands exist in proximity to the facility. Wetland "A" is located south of the facility and receives treated wastewater through Outfall #001A. Wetland "B" is located east of the facility and will not be impacted by the effluent discharge.

Wetland "A" consists of an approximately 0.43 acre (18,916 square feet) palustrine forested, needle-leaved coniferous wetland that transitions into a scrub-shrub wetland moving away from the facility. Dominant vegetation consists of red spruce, red maple, balsam fir, speckled alder, winterberry, bunchberry, jewelweed, and sensitive fern. S.W. Cole observed very poorly drained soils within most of the wetland, with poorly drained soils near the upland/wetland boundary. S.W. Cole noted the existence of a headwater stream originating in Wetland "A" and traversing across the wetland northward to Fresh Pond.

Wetland "B" consists of an approximately 0.08 acre (3,292 square feet) palustrine forested, needle-leaved coniferous wetland. Dominant vegetation consists of balsam fir, black spruce, winterberry, mountain holly, witherod, and cinnamon fern. S.W. Cole noted very poorly drained soils within Wetland "B".

The 2002 permitting action established an annual wetland monitoring program with a five-year duration. The monitoring program was based on the premise that the discharge of treated effluent may alter the wetland system in an adverse manner. The permittee conducted five years of monitoring with the last monitoring report submitted to the Department on December 28, 2006, entitled, "*Final Monitoring Report, North Haven Water Treatment Facility, North Haven, Maine,*" prepared by Phillips EcoServices, and dated December 27, 2006. The 2006 monitoring program report indicated no significant changes to the wetland hydrology, biology, or soils between the time the outfall pipe was installed and little if any documented changes to the environment because of the discharge. The permit effluent limitation and monitoring requirements provided ample provisions to reduce or eliminate discharges that may alter the wetland ecosystem.

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

In the 2007 permitting action, the Department discontinued the requirement for the permittee to conduct annual monitoring of the wetland area adjacent to the wastewater discharge outfall pipe. The Department may re-establish the requirement to monitor or mitigate impacts to the wetland in the future if wetland impacts are observed as being caused by the discharge or if the Department determines that discharges from the outfall are causing or contributing to the degradation of water quality or for any other reason if the Department determines that discharges from the outfall are causing or contributing to the degradation of water quality in the palustrine wetland or Fresh Pond water bodies.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. Flow: This permitting action is carrying forward the monthly average flow limitation of 2,000 GPD and the daily maximum flow limitation of 16,000 GPD for Outfall #001A, both of which are considered representative of the design flows for the permittee.

A review of the monthly average flow data as reported on the Discharge Monitoring Reports submitted to the Department for the period July 2018 – July 2024 (N = 1) indicates a monthly average flow of 720 GPD.

This permitting action carries forward the requirement to monitor flow daily, when discharges occur.

- b. TSS: The monthly average (30 mg/L) and daily maximum concentration limits (60 mg/L) for total suspended solids (TSS) are based on limits established in discharge licenses for other drinking water treatment plant discharges in Maine and are considered by the Department as a best professional judgment (BPJ) of best practicable treatment (BPT). This permitting action is carrying forward the monthly average and daily maximum TSS concentration limits.

Waste Discharge License Conditions, 06-096 CMR Ch.523(6)(f) [effective January 12, 2001], states that all pollutants limited in permits must have limitations, standards or prohibitions expressed in terms of mass. This permitting action is carrying forward the daily maximum and monthly average TSS mass limits based on calculations using the monthly average discharge flow limit of 2,000 GPD (0.002 MGD). The limits are calculated as follows:

Monthly average mass limit = (30 mg/L) (8.34 lbs/gallon) (0.002 MGD) = 0.5 lbs/Day
Daily maximum mass limit = (60 mg/L) (8.34 lbs/gallon) (0.002 MGD) = 1.0 lbs/Day

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

A review of the discharge data as reported on the permittee's Discharge Monitoring Reports (DMRs) submitted to the Department for the period July 2018 – July 2024 indicates the following:

TSS concentration (N = 70)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	< 2.5	<2.5
Daily Maximum	60	< 2.5	<2.5

TSS mass (#DMRs = 70)

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	0.5	0 – 0.02	0.015
Daily Maximum	1.0	0.01 – 0.29	0.021

Result reported as “less than” (<) were considered present at detection levels for calculation purposes.

This permitting action is carrying forward the TSS minimum monitoring frequency of 1/Month from the previous permitting action.

- c. Settleable Solids: This permitting action is carrying forward the daily maximum settleable solids limit of 0.3 mL/L as a BPT requirement and the minimum monitoring frequency of 1/Month. A review of the discharge data as reported on the permittee's Discharge Monitoring Reports submitted to the Department for the period 2018 – July 2024 (N=70) indicates the permittee has been in compliance with the settleable solids limitation 100% of the time during said reporting period with an average daily maximum settleable solids of < 0.1 mL/L.
- d. pH – This permitting action is carrying forward the daily maximum pH limit of 6.0 to 9.0 SU to be consistent with *Effluent Guidelines and Standards*, 06-096 CMR 525 (3)(III)(c) [effective January 12, 2001]. Review of the pH monitoring data submitted to the Department for the period 2018 – July 2024 (N=70) indicates the daily maximum pH has ranged between 6.9 and 8.7 SU. This permitting action is carrying forward the pH minimum monitoring frequency of 1/Month.
- e. Total Residual Chlorine: Limits on total residual chlorine (TRC) are typically specified in Department permits to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. However, in the case of the permittee, chlorine may only enter the waste stream through use of finished water for backwashing of the filters and if the GAC filter material fails to perform or through an overflow of the clearwell to the lagoon. In these unlikely events, any chlorine that passes through the system is anticipated to be diluted and dissipate in the settling lagoon prior to discharge. The Department considers there to be virtually no risk of chlorine at

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

detectable levels (0.05 mg/L) in the discharge effluent and therefore establishes no TRC effluent limits or monitoring requirements in this permitting action.

- f. Sludge Depth: This permitting action is carrying forward the settling lagoon daily maximum sludge depth “report” only limit and the minimum monitoring frequency requirement of 1/Year (November of each year). A review of monitoring data for the reporting period of 2018 – July 2024 (N=6) indicates the daily maximum sludge depth in the lagoon was 1.0 inch.

7. ANTI-BACKSLIDING

Federal regulation 40 C.F.R. §122.44(l) contains the criteria for what is often referred to as the anti-backsliding provisions of the Federal Water Pollution Control Act (Clean Water Act). In general, the regulation states that except for provisions specified in the regulation, effluent limitations, standards, or conditions must be at least as stringent as the final effluent limitations, standards or conditions in the previous permit.

Applicable exceptions include: (1) material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation and (2) information is available which was not available at the time of the permit issuance (other than revised regulations, guidance, or test methods) and which would justify the application of less stringent effluent limitations at the time of permit issuance. All limitations in this permit are equally or more stringent than those in the previous permit

8. ANTI_DEGREDAATION

As permitted, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the waterbody to meet standards for Class B waters.

9. PUBLIC COMMENTS

Public notice of this application was made in the *Courier Gazette* newspaper on or about June 15, 2023. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits must have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses*, 06-096 CMR Ch.522 (effective January 12, 2001).

10. DEPARTMENT CONTACTS

Additional information concerning this permitting action may be obtained from and written comments should be sent to:

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Bureau of Water Quality
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11. RESPONSE TO COMMENTS

Reserved until the end of the formal thirty-day comment period.