



DRAFT General Permit for Nitrogen Discharges

Effective Date: January 1, 2024
Expiration Date: December 31, 2028

Bureau of Water Protection and Land Reuse
Water Planning and Management Division
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DRAFT General Permit for Nitrogen Discharges

Section 1. Authority

This general permit is issued under the authority of Sections 22a-521 through 527 in Chapter 446k of the Connecticut General Statutes (CGS).

Section 2. Definitions

As used in this general permit, and as defined in or modified from Section 22a-521 of the CGS:

“Annual mass load of total nitrogen” (expressed in pounds per day) means the sum of monthly mass loads of total nitrogen calculated for each month from January through December, divided by 12, and rounded to the nearest whole number.

“Authorized activity” means any activity authorized by this general permit.

“CFR” means Code of Federal Regulations.

“Commissioner” means commissioner as defined by Section 22a-2(a) of the CGS.

“Daily composite” means a composite sample taken over a full operating day consisting of grab samples collected at equal intervals of no more than sixty (60) minutes and combined proportionally to flow; or a composite sample continuously collected over a full operating day proportional to flow.

“Daily mass load of total nitrogen” (expressed in pounds per day) means the total nitrogen concentration (expressed in mg/L to the nearest 0.1 mg/L) multiplied by the total daily flow volume (expressed as MGD, to the nearest 0.01 MGD) multiplied by 8.34 (to convert to pounds per day) and rounded to the nearest whole number.

“Day” means a calendar day; if any deadline specified in the general permit falls on a Saturday, Sunday, or legal holiday, such deadline shall be the next business day thereafter.

“Department” means the Department of Energy and Environmental Protection.

“Discharge Monitoring Report” or *“DMR”* means a report form provided or approved by the Commissioner for use by a permittee in submitting discharge monitoring data to the Department and U.S. Environmental Protection Agency relating to compliance with limits and conditions established in the individual permit for a POTW.

"Equivalency factor" means a ratio of the unit response of dissolved oxygen to nitrogen in Long Island Sound for each POTW based on the geographic location of the specific POTW's discharge point divided by the unit response of the geographic area with the highest impact.

"Equivalent nitrogen credit" means a nitrogen credit multiplied by the equivalency factor.

"Individual permit" means a permit issued to a named permittee under Section 22a-430 of the CGS.

"Monthly mass load of total nitrogen" (expressed in pounds per day) means the sum of the daily mass load of total nitrogen calculated for each monitored day during the month, divided by the total number of monitored days during the month and rounded to the nearest whole number.

"Monthly Operating Report" or *"MOR"* means a report form provided or approved by the Commissioner for use by a permittee in submitting data to the Department related to the operation of a POTW.

"Municipality" means municipality as defined by Section 22a-423 of the CGS.

"Nitrogen Analysis Report" or *"NAR"* means an approved report form or format provided by the Commissioner for use by a permittee in submitting monitoring data to the Department related to the discharge of nitrogen from a POTW.

"Nitrogen credit" means the difference between the annual mass load of total nitrogen specified for a POTW in the general permit for treated nitrogen discharges and the monitored annual mass load of total nitrogen discharged by that POTW, expressed as pounds of nitrogen per day.

"Nitrogen Credit Exchange Program" means the program within the Department established pursuant to Section 22a-524 of the CGS.

"Nitrogen wasteload allocation" means a load of total nitrogen assigned to a discharger expressed in pounds per day of total nitrogen discharged.

"Permittee" means a municipality or person discharging nitrogen as authorized by the general permit.

"Person" means person as defined by Section 22a-423 of the CGS.

"Project facility" means a POTW with a fully operational nitrogen removal system or process of any scale as of January 1st of the current year.

"Publicly Owned Treatment Works" or *"POTW"* means a system used for the collection, treatment or disposal of sewage from one or more parcels of land and that discharges to the waters of the state and is owned by a municipality of the state.

“TMDL” means the Total Maximum Daily Load analysis to achieve water quality standards for dissolved oxygen in Long Island Sound as established by the Department and as approved by the United States Environmental Protection Agency on April 3, 2001.

“*Total nitrogen*” means the sum of the total of the concentrations (expressed in milligrams per liter) of total Kjeldahl nitrogen (which includes ammonia nitrogen and organic nitrogen), nitrate nitrogen, and nitrite nitrogen.

Section 3. Authorization Under This General Permit

(a) Eligible Activities or Discharges

This general permit authorizes the discharge of **total nitrogen** from the POTWs listed in Appendix 1, provided the activities are conducted in accordance with this general permit.

This general permit does not authorize any discharge of water, substance, or material into the waters of the state other than the one specified in this section. Any person who or municipality which initiates, creates, originates, or maintains such a discharge must first apply for and obtain authorization under Section 22a-430 of the CGS.

(b) Geographic Area

This general permit applies throughout the State of Connecticut.

(c) Effective Date and Expiration Date of this General Permit

This general permit is effective on *January 1, 2024*, and expires on *December 31, 2028*.

(d) Effective Date of Authorization

An activity is authorized by this general permit on the date the general permit is issued.

Section 4. Conditions of this General Permit

A permittee shall assure that activities authorized by this general permit are conducted in accordance with the following conditions:

(a) Discharge Limits

- (1) Annual nitrogen wasteload allocations applicable to each POTW are set forth in Appendix 1, which is incorporated herein in its entirety as part of this general permit.
- (2) Each permittee shall limit the discharge of total nitrogen from their POTW to the respective nitrogen wasteload allocation set forth in Appendix 1, except as provided in paragraph (b)(1)(B) of this Section.

(b) Compliance During Term of Permit

- (1) A permittee shall be in compliance with this general permit if:
 - (A) the POTW's annual mass load of total nitrogen is less than or equal to the nitrogen wasteload allocation provided in Appendix 1; or
 - (B) the permittee has secured a quantity of state-owned equivalent nitrogen credits equal to the amount by which the POTW exceeded the annual nitrogen wasteload allocation provided in Appendix 1, in accordance with the Nitrogen Credit Exchange Program and Sections 22a-521 through 527 of the CGS.
- (2) A permittee shall be out of compliance with the general permit and subject to the enforcement provisions of Chapter 446k of the CGS if:
 - (A) the POTW's annual mass load of total nitrogen is greater than the nitrogen wasteload allocation provided in Appendix 1; **and**
 - (B) the permittee fails to secure a sufficient quantity of state-owned equivalent nitrogen credits in a timely manner in accordance with the Nitrogen Credit Exchange Program and Sections 22a-521 through 527 of the CGS.

(c) Operation of Nitrogen Removal Process Equipment

The permittee shall not bypass nor fail to operate any of the approved nitrogen removal equipment or processes without the written approval of the Commissioner. The permittee shall operate all necessary equipment to optimize nitrogen removal so as to reduce nitrogen discharges to the maximum extent practicable. This includes but is not limited to all recycle pumping systems, aeration equipment, aeration tank cycling, mixing equipment, anoxic basins, chemical feed systems, or any other process equipment necessary for the optimal removal of nitrogen.

(d) Monitoring Requirements

- (1) Monitoring requirements shall commence on **January 1, 2024**.
- (2) The permittee shall monitor total nitrogen in the final effluent in accordance with the following frequency:
 - (A) POTWs with a design flow rate of less than 10,000,000 gallons per day specified in the individual permit shall monitor the final effluent at a minimum frequency of **weekly**.
 - (B) POTWs with a design flow rate greater than or equal to 10,000,000 gallons per day specified in the individual permit shall monitor the final effluent at a minimum frequency of **twice per week**.
- (3) Final effluent and monitoring location shall be identical to that used to determine compliance with final effluent limitations and monitoring conditions established in the individual permit for the POTW.
- (4) All samples analyzed to determine compliance with the nitrogen wasteload allocation shall be daily composite samples unless otherwise approved in writing by the Commissioner.
- (5) Chemical analyses to determine compliance with the nitrogen wasteload allocation and conditions established in this general permit shall be performed using the methods approved in or pursuant to 40 CFR 136 unless an alternative method has been approved in writing pursuant to 40 CFR 136.4.
- (6) The permittee shall test for total Kjeldahl nitrogen (TKN), nitrate nitrogen, and nitrite nitrogen for each of the required samples.
- (7) The permittee shall measure total daily wastewater flow volume received by the POTW at the main flow meter as required by the individual permit.
 - (A) In the event of a flow meter malfunction on a day when a sample for total nitrogen analysis is collected, the permittee shall utilize the arithmetic average of the 7 highest daily flows measured during the previous 30-day period to calculate the daily mass load of total nitrogen unless an alternative procedure has been agreed to by the Commissioner.

(e) Reporting Requirements

- (1) The results of chemical analyses for all samples collected during the month and the total daily wastewater flow volume for each sampling day during

the month shall be entered on the Monthly Operating Reports (MORs) and Nitrogen Analysis Reports (NARs) reported to the Department. Results must also be entered in the DMR as a calculated monthly mass load of total nitrogen. The MOR, NAR, and DMR must be received by the 15th day of the month following the month in which the samples are collected.

- (2) The Operation and Maintenance Survey shall be completed annually by all project facilities. The completed survey must be emailed to the Department designee as listed on the survey form by October 1st of each year or within 60 days of the survey being distributed by the Department, whichever is later.

(f) Record Keeping Requirements

The permittee shall retain copies of all reports required by this general permit, and records of all data used to compile these reports for a period of at least five years from the date of the report submission to the Department.

Section 5. General Conditions

(a) Duty to Correct and Report Violations

Upon learning of a violation of a condition of this general permit, including any failure of flow monitoring equipment, the permittee shall immediately take all reasonable action to determine the cause of such violation, correct such violation and mitigate its results, prevent further such violation, and report in writing such violation and such corrective action to the Commissioner within (2) hours of the permittee learning of such violation. Such report shall be certified in accordance with Section 5(c) of this general permit.

(b) Duty to Provide Information

If the Commissioner requests any information pertinent to the authorized activity or to compliance with this general permit, the permittee shall provide such information in writing within thirty (30) days of such request. Such information shall be certified in accordance with Section 5(c) of this general permit.

(c) Certification of Documents

Any document, including but not limited to any notice, which is submitted to the Commissioner under this general permit shall be signed by, as applicable, the permittee in accordance with Section 22a-430-3(b)(2) of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate, and complete to the best of my knowledge and belief. I understand that a false statement made in the submitted information may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes (CGS), pursuant to Section 53a-157b of the CGS, and in accordance with any other applicable statute."

(d) *Date of Filing*

For purposes of this general permit, the date of filing with the Commissioner of any document is the date such document is received by the Commissioner. The word "day" as used in this general permit means a calendar day; if any date specified in the general permit falls on a Saturday, Sunday, or legal holiday, such deadline shall be the next business day thereafter.

(e) *False Statements*

Any false statement in any information submitted pursuant to this general permit may be punishable as a criminal offense, in accordance with Section 22a-6 of the CGS, pursuant to Section 53a-157b of the CGS, and in accordance with any other applicable statute.

(f) *Correction of Inaccuracies*

Within fifteen (15) days after the date a permittee becomes aware of a change in any information in any material submitted pursuant to this general permit or becomes aware that any such information is inaccurate or misleading, or that any relevant information has been omitted, such permittee shall correct the inaccurate or misleading information or supply the omitted information in writing to the Commissioner. Such information shall be certified in accordance with Section 5(c) of this general permit.

(g) *Other Applicable Law*

Nothing in this general permit shall relieve the permittee of the obligation to comply with any applicable federal, state, and local law, including but not limited to the obligation to obtain and comply with any authorizations required by such law. In the event a POTW is subject to a more stringent nitrogen limitation than the nitrogen wasteload allocation set forth in this general permit, the Permittee shall comply with that more stringent limitation and may not purchase or transfer nitrogen credits to comply with that additional limitation.

(h) Other Rights

This general permit is subject to and does not derogate any present or future rights or powers of the State of Connecticut and conveys no rights in real or personal property nor any exclusive privileges and is subject to all public and private rights and to any federal, state, and local laws pertinent to the property or activity affected by such general permit. In conducting any discharge authorized hereunder, the permittee may not cause pollution, impairment, or destruction of the air, water, or other natural resources of this state.

Section 6. Commissioner's Powers

(a) Abatement of Violations

The Commissioner may take any action provided by law to abate a violation of this general permit, including the commencement of proceedings to collect penalties for such violation. The Commissioner may, by summary proceedings or otherwise and for any reason provided by law, including violation of this general permit, revoke a permittee's authorization hereunder in accordance with Sections 22a-3a-2 through 22a-3a-6, inclusive, of the Regulations of Connecticut State Agencies. Nothing herein shall be construed to affect any remedy available to the Commissioner by law.

(b) General Permit Revocation, Suspension, or Modification

The Commissioner may, for any reason provided by law, by summary proceedings or otherwise, revoke or suspend this general permit or modify it to establish any appropriate conditions, schedules of compliance, or other provisions which may be necessary to protect human health or the environment or to implement the TMDL.

Issued:

Tracy R. Babbidge
Acting Deputy Commissioner

APPENDIX 1

ANNUAL WASTELOAD ALLOCATIONS (WLAs) FOR TOTAL NITROGEN

Zone	POTW Name	Equivalency Factor	Total Nitrogen WLA, 2024-28 (lbs/day)
1	GROTON CITY WPCF	0.18	99
1	GROTON TOWN WPCF	0.18	153
1	JEWETT CITY WPCF	0.17	15
1	KILLINGLY WPCF	0.14	131
1	LEDYARD WPC	0.18	7
1	MONTVILLE WPCF	0.18	118
1	NEW LONDON WPCF	0.18	386
1	NORWICH WPCF	0.18	201
1	PLAINFIELD NORTH WPCF	0.14	34
1	PLAINFIELD VILLAGE WPCF	0.14	24
1	PUTNAM WPCF	0.14	53
1	SPRAGUE WPCF	0.16	7
1	STAFFORD SPRINGS WPCF	0.15	60
1	STONINGTON BOROUGH WPCF	0.18	14
1	STONINGTON MYSTIC WPCF	0.18	27
1	STONINGTON PAWCATUCK WPCF	0.17	24
1	THOMPSON WPCF	0.14	10
1	UCONN WPCF	0.15	44
1	WINDHAM WPCF	0.15	125
2	BRISTOL WPCF	0.18	398
2	CANTON WPCF	0.18	24
2	EAST HAMPTON WPCF	0.20	54
2	EAST HARTFORD WPCF	0.19	292
2	EAST WINDSOR WPCF	0.19	59
2	ENFIELD WPCF	0.19	278
2	FARMINGTON WPCF	0.18	178
2	GLASTONBURY WPCF	0.20	98
2	HARTFORD WPCF	0.20	2377
2	MANCHESTER WPCF	0.19	312
2	MATTABASSETT WPCF	0.20	1056
2	NEW HARTFORD	0.18	3
2	PLAINVILLE WPCF	0.18	101
2	PLYMOUTH WPCF	0.18	42
2	PORTLAND WPCF	0.20	31
2	ROCKY HILL WPCF	0.20	288
2	SIMSBURY WPCF	0.18	107
2	SOUTH WINDSOR WPCF	0.19	106
2	SUFFIELD WPCF	0.19	45

Zone	POTW Name	Equivalency Factor	Total Nitrogen WLA, 2024-28 (lbs/day)
2	VERNON WPCF	0.19	184
2	WINDSOR LOCKS WPCF	0.19	66
2	WINDSOR POQUONOCK WPCF	0.19	98
2	WINSTED WPCF	0.18	64
3	BRANFORD WPCF	0.60	192
3	CHESHIRE WPCF	0.49	103
3	MERIDEN WPCF	0.49	449
3	NEW HAVEN EAST WPCF	0.60	1568
3	NORTH HAVEN WPCF	0.60	158
3	SOUTHINGTON WPCF	0.49	204
3	WALLINGFORD WPCF	0.60	269
3	WEST HAVEN WPCF	0.60	353
4	ANSONIA WPCF	0.67	115
4	BEACON FALLS WPCF	0.67	12
4	DANBURY WPCF	0.46	442
4	DERBY WPCF	0.67	71
4	LITCHFIELD WPCF	0.35	24
4	MILFORD BEAVER BROOK WPCF	0.67	94
4	MILFORD HOUSATONIC WPCF	0.67	307
4	NAUGATUCK WPCF	0.60	246
4	NEW MILFORD WPCF	0.46	28
4	NEWTOWN WPCF	0.46	42
4	NORFOLK WPCF	0.35	11
4	NORTH CANAAN WPCF	0.35	13
4	SALISBURY WPCF	0.35	21
4	SEYMOUR WPCF	0.67	61
4	SHELTON WPCF	0.67	106
4	STRATFORD WPCF	0.67	356
4	THOMASTON WPCF	0.60	42
4	TORRINGTON WPCF	0.60	248
4	WATERBURY WPCF	0.60	1049
5	BRIDGEPORT EAST WPCF	0.85	362
5	BRIDGEPORT WEST WPCF	0.85	1041
5	FAIRFIELD WPCF	0.85	406
5	WESTPORT WPCF	0.85	87
6	GREENWICH WPCF	1.00	479
6	NEW CANAAN WPCF	1.00	64
6	NORWALK WPCF	1.00	718
6	RIDGEFIELD SOUTH ST. WPCF	1.00	29
6	STAMFORD WPCF	1.00	926