Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

NPDES PERMIT

Issued to

Permittee:
The Metropolitan District
555 Main St.
Hartford, Connecticut 06103

Location Address:
Poquonock WPCF
1222 Poquonock Ave.
Windsor, Connecticut 06095-1809

Permit ID: CT0100994 **Design Flow Rate: 5.0** MGD **Effective Date: 07/01/2022**

Receiving Stream: Farmington River **Permit Expires:** 06/30/2027

SECTION 1: GENERAL PROVISIONS

(A) This permit is reissued in accordance with Section 22a-430 of Chapter 446k, Connecticut General Statutes ("CGS"), and Regulations of Connecticut State Agencies ("RCSA") adopted thereunder, as amended, and Section 402(b) of the Clean Water Act, as amended, 33 USC 1251, et. seq., and pursuant to an approval dated September 26, 1973, by the Administrator of the United States Environmental Protection Agency for the State of Connecticut to administer a N.P.D.E.S. permit program.

(B) The Metropolitan District ("Permittee"), shall comply with all conditions of this permit including the following sections of the RCSA which have been adopted pursuant to Section 22a-430 of the CGS and are hereby incorporated into this permit. **Your attention is especially drawn to the notification requirements of subsection (i)(2), (i)(3), (j)(1), (j)(6), (j)(8), (j)(9)(C), (j)(10)(C), (j)(11)(C), (D), (E), and (F), (k)(3) and (4) and (l)(2) of Section 22a-430-3.** To the extent this permit imposes conditions more stringent than those found in the regulations, this permit shall apply.

Section 22a-430-3 General Conditions

- **(a)** Definitions
- **(b)** General
- **(c)** Inspection and Entry
- **(d)** Effect of a Permit
- **(e)** Duty to Comply
- **(f)** Proper Operation and Maintenance
- **(g)** Sludge Disposal
- **(h)** Duty to Mitigate
- **(i)** Facility Modifications; Notification
- **(j)** Monitoring, Records and Reporting Requirements
- **(k)** Bypass
- **(l)** Conditions Applicable to POTWs
- **(m)** Effluent Limitation Violations
- **(n)** Enforcement
- **(o)** Resource Conservation
- **(p)** Spill Prevention and Control
- **(q)** Instrumentation, Alarms, Flow Recorders
- **(r)** Equalization

Section 22a-430-4 Procedures and Criteria

- **(a)** Duty to Apply
- **(b)** Duty to Reapply

(c) Application Requirements
(d) Preliminary Review
(e) Tentative Determination
(f) Draft Permits, Fact Sheets
(g) Public Notice, Notice of Hearing
(h) Public Comments
(i) Final Determination
(j) Public Hearings
(k) Submission of Plans and Specifications. Approval.
(l) Establishing Effluent Limitations and Conditions
(m) Case-by-Case Determinations
(n) Permit Issuance or Renewal
(o) Permit or Application Transfer
(p) Permit Revocation, Denial or Modification
(q) Variances
(r) Secondary Treatment Requirements
(s) Treatment Requirements
(t) Discharges to POTWs - Prohibitions

(C) Violations of any of the terms, conditions, or limitations contained in this permit may subject the Permittee to enforcement action including, but not limited to, seeking penalties, injunctions and/or forfeitures pursuant to applicable sections of the CGS and RCSA.

(D) Any false statement in any information submitted pursuant to this Section of the permit may be punishable as a criminal offense under Section 22a-438 or 22a-131a of the CGS or in accordance with Section 22a-6, under Section 53a-157b of the CGS.

(E) The Permittee shall comply with Section 22a-416-1 through Section 22a-416-10 of the RCSA concerning operator certification.

(F) No provision of this permit and no action or inaction by the Commissioner shall be construed to constitute an assurance by the Commissioner that the actions taken by the Permittee pursuant to this permit will result in compliance or prevent or abate pollution.

(G) Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.

(H) An annual fee shall be paid for each year this permit is in effect as set forth in Section 22a-430-7 of the RCSA. As of October 1, 2009 the annual fee is $2,682.50.

SECTION 2: DEFINITIONS

(A) The definitions of the terms used in this permit shall be the same as the definitions contained in Section 22a-423 of the CGS and Section 22a-430-3(a) and 22a-430-6 of the RCSA, except for **"**Composite**"** and **"**No Observable Acute Effect Level (NOAEL)**"** which are redefined below.

(B) In addition to the above, the following definitions shall apply to this permit:

"------" in the limits column on the monitoring tables in Attachment 1 means a limit is not specified but a value must be reported on the DMR, MOR, and/or the ATMR.

"Annual" in the context of any sampling frequency, shall mean the sample must be collected in the month June except in the case of Chronic Toxicity when the samples must be collected in the months of July, August or September.

"Average Monthly Limit" means the maximum allowable "Average Monthly Concentration" as defined in Section 22a-430-3(a) of the RCSA when expressed as a concentration (e.g. mg/l); otherwise, it means "Average Monthly Discharge Limitation" as defined in Section 22a-430-3(a) of the RCSA.

"Bi-Weekly" in the context of any sampling frequency, shall mean once every two weeks.

"Completion of the facility expansion and upgrade" means when the engineer provides certificates of substantial completion for all of the treatment structures.

"Composite" or **"(C)"** means a sample consisting of a minimum of eight aliquot samples collected at equal intervals of no less than 30 minutes and no more than 60 minutes and combined proportionally to flow over the sampling period provided that during the sampling period the peak hourly flow is experienced.

"Critical Test Concentration" or **"(CTC)"** means the specified effluent dilution at which the Permittee is to conduct a single-concentration Aquatic Toxicity Test.

"Daily Composite" or **"(DC)"** 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 proportionally to flow.

"Daily Concentration" means the concentration of a substance as measured in a daily composite sample, or, arithmetic average of all grab sample results defining a grab sample average.

"Daily Quantity" means the quantity of waste discharged during an operating day.

"Geometric Mean" is the **"**n**"**th root of the product of **"**n**"** observations.

"Infiltration" means water other than wastewater that enters a sewer system (including sewer system and foundation drains) from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.

"Inflow" means water other than wastewater that enters a sewer system (including sewer service connections) from sources such as, but not limited to, roof leaders, cellar drains, yard drains, area drains, drains from springs and swampy areas, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff, street wash waters, or drainage. Inflow does not include, and is distinguished from, infiltration.

"Instantaneous Limit" means the highest allowable concentration of a substance as measured by a grab sample, or the highest allowable measurement of a parameter as obtained through instantaneous monitoring.

"In-stream Waste Concentration" or **"(IWC)"** means the concentration of a discharge in the receiving water after mixing has occurred in the allocated zone of influence.

"MGD" means million gallons per day.

"Maximum Daily Limit" means the maximum allowable "Daily Concentration" (defined above) when expressed as a concentration (e.g. mg/l), otherwise, it means the maximum allowable "Daily Quantity" as defined above, unless it is expressed as a flow quantity. If expressed as a flow quantity it means **"**Maximum Daily Flow**"** as defined in Section 22a-430-3(a) of the RCSA.

"Monthly Minimum Removal Efficiency" means the minimum reduction in the pollutant parameter specified when the effluent average monthly concentration for that parameter is compared to the influent average monthly concentration.

"NA" as a Monitoring Table abbreviation means **"**not applicable**"**.

"NR" as a Monitoring Table abbreviation means **"**not required**"**.

"No Observable Acute Effect Level" or **"(NOAEL)"** means any concentration equal to or less than the critical test concentration in a single concentration (pass/fail) toxicity test, conducted pursuant to Section 22a-430-3(j)(7)(A)(i) of the RCSA, demonstrating 90% or greater survival of test organisms at the CTC.

"Quarterly" in the context of any sampling frequency, shall mean sampling is required in the months of **March, June September and December**.

"Sanitary Sewage" means wastewaters from residential, commercial and industrial sources introduced by direct connection to the sewerage collection system tributary to the treatment works including non-excessive inflow/infiltration sources.

"Semi-Annual" in the context of any sampling frequency, shall mean the sample must be collected in the months of June and December.

"Twice per Month" in the context of any sampling frequency, mean two samples per calendar month collected no less than 12 days apart.

"ug/l" means micrograms per liter

"Work Day" in the context of a sampling frequency means, Monday through Friday excluding official MDC holidays.

"**Zone of Influence**" means the spatial area or volume of receiving water flow within which some degradation of water quality or use impairment is anticipated to occur as a result of a discharge.

SECTION 3: COMMISSIONER'S DECISION

(A) The Commissioner of Energy and Environmental Protection ("Commissioner") has issued a final decision and found the system installed for the treatment of the discharge will protect the waters of the state from pollution. The Commissioner's decision is based on application #**202004966** for permit reissuance received on **March 30, 2020** and the administrative record established in the processing of that application.

(B) The Commissioner hereby authorizes the Permittee to discharge in accordance with the provisions of this permit, the above referenced application, and all approvals issued by the Commissioner or his authorized agent for the discharges and/or activities authorized by, or associated with, this permit.

(C) The Commissioner reserves the right to make appropriate revisions to the permit, if required after Public Notice, in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the Federal Clean Water Act or the CGS or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Federal Clean Water Act or CGS or regulations adopted thereunder which are then applicable.

SECTION 4: GENERAL LIMITATIONS AND OTHER CONDITIONS

(A) The Permittee shall not accept any new sources of non-domestic sewage conveyed to its POTW through its sanitary sewerage system or by any means other than its sanitary sewage system unless the generator of such wastewater; (a) is authorized by a permit issued by the Commissioner under Section 22a-430 CGS (individual permit), or, (b) is authorized under Section 22a-430b (general permit), or, (c) has been issued an emergency or temporary authorization by the Commissioner under Section 22a-6k. All such non-domestic sewage shall be processed by the POTW via receiving facilities at a location and in a manner prescribed by the Permittee which are designed to contain and control any unplanned releases.

(B) No new discharge of domestic sewage from a single source to the POTW in excess of 50,000 gallons per day shall be allowed by the Permittee until the Permittee has notified in writing the Connecticut Department of Energy and Environmental Protection, Bureau of Water Protection and Land Reuse, Water Planning and Management Division, Municipal Wastewater Section, 79 Elm Street, Hartford, CT 06106-5127 of said new discharge.

(C) The permittee shall maintain a system of user charges or dedicated taxes or other fees sufficient to operate and maintain the POTW (including the collection system) and replace critical components.

(D) The Permittee shall maintain a sewer use ordinance that is consistent with the Model Sewer Ordinance for Connecticut Municipalities prepared by the Department of Energy and Environmental Protection. The Commissioner of Energy and Environmental Protection alone may authorize certain discharges which may not conform to the Model Sewer Ordinance.

(E) Outside of the Zone of Influence assigned to this discharge, this discharge shall not cause or contain:

(1) sludge deposits, solid refuse, floating solids, oils and grease, or scum except as may result from a discharge from a wastewater treatment facility providing appropriate treatment and none exceeding levels necessary to protect and maintain all designated uses;

(2) color resulting in obvious discoloration of the surface water;

(3) suspended and settleable solids in concentrations or combinations which would impair the designated uses; be aesthetically objectionable; significantly alter the physical or chemical composition of bottom sediments; and/or adversely impact organisms living in or on the bottom sediment;

(4) silt or sand deposits other than of natural origin;

(5) turbidity other than that of natural origin except as may result discharge from a wastewater treatment facility providing appropriate treatment, provided all reasonable controls are used to control turbidity and none exceeding levels necessary to protect and maintain all designated uses; or

(6) odor that would impair the designated uses specifically assigned to this Classification pursuant to the Connecticut Water Quality Standards Regulations (RCSA §§ 22a-426-1—22a-426-9).

(F) No discharge from the permitted facility shall cause acute or chronic toxicity in the receiving water body beyond any Zone Of Influence (ZOI) specifically allocated to that discharge in this permit.

(G) The Permittee shall maintain an alternate power source adequate to provide full operation of all pump stations in the sewerage collection system and to provide a minimum of primary treatment and disinfection at the water pollution control facility to insure that no discharge of untreated wastewater will occur during a failure of a primary power source.

(H) The average monthly effluent concentration shall not exceed 15% of the average monthly influent concentration for BOD_5 and Total Suspended Solids for all daily composite samples taken in any calendar month.

(I) Any new or increased amount of sanitary sewage discharge to the sewer system is prohibited where it will cause a dry weather overflow or exacerbate an existing dry weather overflow.

(J) Sludge Conditions

(1) The Permittee shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices, including but not limited to 40 CFR Part 503.

(2) If an applicable management practice or numerical limitation for pollutants in sewage sludge more stringent than existing federal and state regulations is promulgated under Section 405(d) of the Clean Water Act (CWA), this permit shall be modified or revoked and reissued to conform to the promulgated regulations.

(3) The Permittee shall give prior notice to the Commissioner of any change(s) planned in the Permittee' sludge use or disposal practice. A change in the Permittee' sludge use or disposal practice may be a cause for modification of the permit.

(4) Testing for inorganic pollutants shall follow "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846 as updated and/or revised.

(K) This permit becomes effective on the 1st day of the month following the date of signature of the Commissioner or designee.

(L) When the arithmetic mean of the average daily flow from the POTW for the previous 180 days exceeds 90% of the design flow rate, the Permittee shall develop and submit for the review and approval of the Commissioner within one (1) year from the date such threshold was exceeded, a plan to accommodate future increases in flow to the plant. This plan shall include a schedule for completing any recommended improvements and a plan for financing the improvements.

(M) When the arithmetic mean of the average daily BOD_5 or TSS loading into the POTW for the previous 180 days exceeds 90% of the design load rate, the Permittee shall develop and submit for the review and approval of the Commissioner within one (1) year from the date such threshold was exceeded, a plan to accommodate future increases in load to the plant. This plan shall include a schedule for completing any recommended improvements and a plan for financing the improvements.

(N) On or before July 31st of each calendar year the main flow meter shall be calibrated by trained personnel in accordance with the manufacturer's specifications. The actual record of the calibration shall be retained onsite and, upon request, the Permittee shall submit to the Commissioner a copy of that record.

(O) The Permittee shall operate and maintain all processes as installed in accordance with the approved plans and specifications and as outlined in the associated operation and maintenance manual. This includes but is not limited to all preliminary treatment processes, primary treatment processes, recycle pumping processes, anaerobic treatment processes, anoxic treatment processes, aerobic treatment processes, flocculation processes, effluent filtration processes or any other processes necessary for the optimal removal of pollutants. The Permittee shall not bypass or fail to operate any of the aforementioned processes without the written approval of the Commissioner.

(P) On or before 2.5 years from effective date of this permit, and prior to the planned upgrade, each anaerobic digester unit shall be sampled, in a manner approved in writing by the Commissioner, to determine the amount of grit and depth of scum blanket. The results of the sampling shall be maintained at the POTW and, upon request, the Permittee shall submit to the Commissioner a copy of the sampling data.

(Q) The Permittee is hereby authorized to accept septage at the treatment facility; or other locations as approved by the Commissioner.

(R) The temperature of any discharge shall not increase the temperature of the receiving stream above 85ºF, or, in any case, raise the normal temperature of the receiving stream more than 4ºF beyond the permitted zone of influence.

SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

(A) The discharge(s) shall not exceed and shall otherwise conform to the specific terms and conditions listed in this permit. The discharge and treatment process are restricted by, and shall be monitored in accordance with, Tables **A** through **G** incorporated in this permit as Attachment 1.

(B) The Permittee shall provide monitoring data of the performance of the treatment process in accordance with the Monthly Operating Report (MOR) incorporated in this permit as Attachment 2.

SECTION 6: SAMPLE COLLECTION, HANDLING and ANALYTICAL TECHNIQUES

(A) Chemical Analysis

(1) Chemical analyses to determine compliance with effluent limits and conditions established in this permit shall be performed using the methods approved pursuant to the Code of Federal Regulations, Part 136 of Title 40 (40 CFR 136) unless an alternative method has been approved in writing pursuant to 40 CFR 136.4 or as provided in Section 22a-430-3-(j)(7) of the RCSA. Chemicals which do not have methods of analysis defined in 40 CFR 136 or the RCSA shall be analyzed in accordance with methods specified in this permit.

(2) All metals analyses identified in this permit shall refer to analyses for Total Recoverable Metal, as defined in 40 CFR 136 unless otherwise specified.

(3) Grab samples shall be taken during the period of the day when the peak hourly flow is normally experienced.

(4) Samples collected for bacteriological examination shall be collected between the hours of 11 a.m. and 3 p.m. or at that time of day when the peak hourly flow is normally experienced. A chlorine residual sample must be taken at the same time and the results recorded**.**

(5) The Minimum Levels specified below represent the concentrations at which quantification must be achieved and verified during the chemical analyses for the parameters identified in Attachment 1, Table **C** Analyses for these parameters must include check standards within ten percent of the specified Minimum Level or calibration points equal to or less than the specified Minimum Level.

Parameter	**Minimum Level**
Aluminum	0.050 mg/l
Antimony, Total	0.010 mg/l
Arsenic, Total	0.01 micrograms/liter (EPA Method 1632)
Beryllium, Total	0.001 mg/l
Cadmium, Total	0.0005 mg/l
Chlorine, Total Residual	0.050 mg/l
Chromium, Total	0.005 mg/l
Chromium, Total Hexavalent	0.010 mg/l
Copper, Total	0.005 mg/l
Cyanide, Total	0.010 mg/l
Iron, Total	0.040 mg/l
Lead, Total	0.005 mg/l
Mercury, Total	0.0005 micrograms/liter (EPA Method 1631E)
Nickel, Total	0.005 mg/l
Phosphorus, Total	0.10 mg/l
Selenium, Total	0.005 mg/l
Silver, Total	0.002 mg/l
Thallium, Total	0.005 mg/l
Zinc, Total	0.020 mg/l

(6) The value of each parameter for which monitoring is required under this permit shall be reported to the maximum level of accuracy and precision possible consistent with the requirements of this Section of the permit.

(7) Effluent analyses for which quantification was verified during the analysis at or below the minimum levels specified in this Section and which indicate that a parameter was not detected shall be reported as "less than x" where 'x' is the numerical value equivalent to the analytical method detection limit for that analysis.

(8) Results of effluent analyses which indicate that a parameter was not present at a concentration greater than or equal to the Minimum Level specified for that analysis shall be considered equivalent to zero (0.0) for purposes of determining compliance with effluent limitations or conditions specified in this permit.

(B) Acute Aquatic Toxicity Test

(1) Samples for monitoring of Acute Aquatic Toxicity shall be collected and handled as prescribed in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA-821-R-02-012).

(a) Composite samples shall be chilled as they are collected. Grab samples shall be chilled immediately following collection. Samples shall be held at 0 - 6ºC until Acute Aquatic Toxicity testing is initiated.

(b) Effluent samples shall not be dechlorinated, filtered, or, modified in any way, prior to testing for Acute Aquatic Toxicity unless specifically approved in writing by the Commissioner for monitoring at this facility. Facilities with effluent dechlorination and/or filtration designed as part of the treatment process are not required to obtain approval from the Commissioner.

(c) Samples shall be taken after dechlorination during the disinfection season for Acute Aquatic Toxicity unless otherwise approved in writing by the Commissioner for monitoring at this facility.

(d) Chemical analyses of the parameters identified in Attachment 1, Table C shall be conducted on an aliquot of the same sample tested for Acute Aquatic Toxicity.

(i) At a minimum, pH, specific conductance, total alkalinity, total hardness, and total residual chlorine shall be measured in the effluent sample and, during Acute Aquatic Toxicity tests, in the highest concentration of the test and in the dilution (control) water at the beginning of the test and at test termination. If total residual chlorine is not detected at test initiation, it does not need to be measured at test termination. Dissolved oxygen, pH, and temperature shall be measured in the control and all test concentrations at the beginning of the test, daily thereafter, and at test termination.

(e) Tests for Acute Aquatic Toxicity shall be initiated within 36 hours of sample collection.

(2) Monitoring for Acute Aquatic Toxicity to determine compliance with the permit condition on Acute Aquatic Toxicity (invertebrate) shall be conducted for 48 hours utilizing neonatal (less than 24 hours old) *Daphnia pulex*.

(3) Monitoring for Acute Aquatic Toxicity to determine compliance with the permit condition on Acute Aquatic Toxicity (vertebrate) shall be conducted for 48 hours utilizing larval (1 to 14-day old with no more than 24 hours range in age) *Pimephales promelas*.

(4) Tests for Acute Aquatic Toxicity shall be conducted as prescribed for static non-renewal acute tests in "Methods for measuring the Acute Aquatic Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012), except as specified below.

(a) For Acute Aquatic Toxicity limits, and for monitoring only conditions, expressed as a NOAEL value, Pass/Fail (single concentration) tests shall be conducted at a specified Critical Test Concentration (CTC) equal to the Aquatic Toxicity limit, (100% in the case of monitoring only conditions), as prescribed in Section 22a-430-3(j)(7)(A)(i) of the RCSA.

(b) Organisms shall not be fed during the tests.

(c) Synthetic freshwater prepared with deionized water adjusted to a hardness of 50±5 mg/L as $CaCO_3$ shall be used as dilution water in the tests.

(d) Copper nitrate shall be used as the reference toxicant.

(5) For monitoring only conditions, toxicity shall be demonstrated when the results of a valid pass/fail Acute Aquatic Toxicity indicates less than 90% survival in the effluent at the CTC (100%).

(C) Chronic Aquatic Toxicity Test for Freshwater Discharges

(1) Chronic Aquatic Toxicity testing of the discharge shall be conducted annually during July, August, or September of each year.

(2) Chronic Aquatic Toxicity testing shall be performed on the discharge in accordance with the test methodology established in "Short-Term Methods for Estimating The Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms" (EPA-821-R-02-013) as referenced in 40 CFR 136 for *Ceriodaphnia* survival and reproduction and Fathead minnow larval survival and growth.

(a) Chronic Aquatic Toxicity tests shall utilize a minimum of five effluent dilutions prepared using a dilution factor of 0.5 (100% effluent, 50% effluent, 25% effluent, 12.5% effluent, 6.25% effluent).

(b) Farmington River water collected immediately upstream of the area influenced by the discharge shall be used as control (0% effluent) and dilution water in the toxicity tests.

(b) A laboratory water control consisting of synthetic freshwater prepared in accordance with EPA-821-R-02-013 at a hardness of 50±5 mg/l shall be used as an additional control (0% effluent) in the toxicity tests.

(d) Daily composite samples of the discharge (final effluent following disinfection) and grab samples of Farmington River for use as site water control and dilution water, shall be collected on day 0 for test solution renewal on day 1 and day 2 of the test; day 2, for test solution renewal on day 3 and day 4 of the test; and day 4, for test solution renewal for the remainder of the test. Samples shall not be pH or hardness adjusted, or chemically altered in any way.

(3) All samples of the discharge and Farmington River water used in the Chronic Aquatic Toxicity test shall, at a minimum, be analyzed and results reported in accordance with the provisions listed in Section 6(A) of this permit for the parameters listed in Attachment 1, Table C included herein, excluding Acute Aquatic Toxicity organism testing.

(a) As part of each toxicity test's daily renewal procedure **dissolved organic carbon, pH and hardness** must be measured in the effluent and receiving waters at the beginning and end of each 24-hour period.

(b) The permittee may discontinue the monitoring of the parameters listed in paragraph 6(C)(3)(a) above provided that prior to such discontinuation the Commissioner is notified in writing by the Permittee that the use of Poly-aluminum Chloride has been ceased at the POTW. Nothing in this section of the permit shall preclude the Commissioner from reinstating, through a written notification to the Permittee, a previously discontinued monitoring requirement of paragraph 6(C)(3)(a) above if the POTW's effluent water quality conditions support such reinstatement.

SECTION 7: RECORDING AND REPORTING REQUIREMENTS

(A) The Permittee and/or the Signatory Authority shall continue to report the results of chemical analyses and any aquatic toxicity test required above in Sections 5 and 6 and the referenced Attachment 1 by electronic submission of DMRs under this permit to the Department using NetDMR in satisfaction of the DMR submission requirement of this permit. The report shall include a detailed explanation of any violations of the limitations specified. DMRs shall be submitted electronically to the Department no later than the 15th day of the month following the month in which samples are collected.

(1) For composite samples, from other than automatic samplers, the instantaneous flow and the time of each aliquot sample collection shall be recorded and maintained at the POTW**.**

(B) Complete and accurate test data, including percent survival of test organisms in each replicate test chamber, LC_{50} values and 95% confidence intervals for definitive test protocols, and all supporting chemical/physical measurements performed in association with any aquatic toxicity test, shall be entered on the Aquatic Toxicity Monitoring Report form (ATMR) and sent to the Bureau of Water Protection and Land Reuse at the address specified below by the 15th day of the month following the month in which samples are collected:

ATTN: Municipal Wastewater Monitoring Coordinator
Connecticut Department of Energy and Environmental Protection
Bureau of Water Protection and Land Reuse
Water Planning and Management Division
79 Elm Street
Hartford, Connecticut 06106-5127

(C) The results of the process monitoring required above in Section 5 shall be entered on the Monthly Operating Report (MOR) form, included

herein as Attachment 2, and reported to the Bureau of Water Protection and Land Reuse. The MOR report shall also be accompanied by a detailed explanation of any violations of the limitations specified. The MOR must be received at the address specified above in Section 7 (B) of this permit by the 15th day of the month following the month in which the data and samples are collected.

(D) A complete and thorough report of the results of the chronic toxicity monitoring outlined in Section 6(C) shall be prepared as outlined in Section 10 of EPA-821-R-02-013 and submitted to the Department for review on or before December 31 of each calendar year to the address specified above in Section 7 (B) of this permit.

SECTION 8: RECORDING AND REPORTING OF VIOLATIONS, ADDITIONAL TESTING REQUIREMENTS, BYPASSES, MECHANICAL FAILURES, AND MONITORING EQUIPMENT FAILURES

(A) If any Acute Aquatic Toxicity sample analysis indicates toxicity, or that the test was invalid, an additional sample of the effluent shall be collected and tested for Acute Aquatic Toxicity and associated chemical parameters, as described above in Section 5 and Section 6, and the results reported to the Bureau of Water Protection and Land Reuse (Attn: Aquatic Toxicity) via the ATMR form (see Section 7 (B)) within 30 days of the previous test. These test results shall also be reported on the next month's DMR report pursuant to Section 7 (A). The results of all toxicity tests and associated chemical parameters, valid and invalid, shall be reported.

(B) If any two consecutive Acute Aquatic Toxicity test results or any three Acute Aquatic Toxicity test results in a twelve month period indicates toxicity, the Permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and shall submit a report, to the Bureau of Water Protection and Land Reuse (Attn: Aquatic Toxicity), for the review and written approval of the Commissioner in accordance with Section 22a-430-3(j)(10)(c) of the RCSA describing proposed steps to eliminate the toxic impact of the discharge on the receiving water body. Such a report shall include a proposed time schedule to accomplish toxicity reduction and the Permittee shall comply with any schedule approved by the Commissioner.

(C) Sewage Right-to-Know Bypass Reporting

(1) Section 22a-430-3(k) of the RCSA shall apply in all instances of bypass including a bypass of the treatment plant or a component of the sewage collection system planned during required maintenance. The Department of Energy and Environmental Protection, Bureau of Water Protection and Land Reuse, Water Planning and Management Division, Municipal Wastewater, the Department of Public Health, Water Supply Section and Recreation Section, and the local Director of Health shall be notified within 2 hours of the Permittee learning of the event via online reporting in a format approved by the Commissioner. A final incident report shall be submitted to the Department of Energy and Environmental Protection, Bureau of Water Protection and Land Reuse, Water Planning and Management Division, Municipal Wastewater within five days of the Permittee learning of each occurrence of a discharge or bypass of untreated or partially treated sewage via online reporting in a format approved by the Commissioner.

If the online reporting system is nonfunctional for either bypass reporting requirement noted above, then the Permittee shall notify DEEP via telephone during normal business hours (8:30 a.m. to 4:30 p.m. Monday through Friday) at (860) 424-3704 or after hours to the DEEP Emergency Response Unit at (860) 424-3338 and the Department of Public Health at (860) 509-8000 with the final incident report being submitted online.

(D) 22a-430-3(j) 8 of the RCSA shall apply in all instances of monitoring equipment failures that prevent meeting the requirements in this permit. In the event of any such failure of the monitoring equipment including, but not limited to, loss of refrigeration for an auto-sampler or lab refrigerator or loss of flow proportion sampling ability, the Permittee shall notify the Department of Energy and Environmental Protection, Bureau of Water Protection and Land Reuse, Water Planning and Management Division, Municipal Wastewater Section in the same manner as in paragraph C (1) of this Section. If the online reporting system is nonfunctional and the failure occurs outside normal working hours (8:30 a.m. to 4:30 p.m. Monday through Friday) the Permittee may wait to make the verbal report no later than 10:30 am of the next business day after learning of the failure.

(E) In addition to the reporting requirements contained in Section 22a-430-3(i), (j), and (k) of the RCSA, the Permittee shall notify the Department of Energy and Environmental Protection, Bureau of Water Protection and Land Reuse, Water Planning and Management Division, Municipal Wastewater in the same manner as in paragraph C (1) of this Section concerning the failure of any major component of the treatment facilities which the Permittee may have reason to believe would result in an effluent violation.

SECTION 9: SEWERAGE COLLECTION SYSTEM AND POTW O&M

A) The requirements of paragraph 9(B) do not apply if the permittee continues to submit the Long-term Preventive Maintenance information ("Maintenance Information") on an annual basis, performed within Metropolitan District communities (i.e. all member communities) as required in Section X.B.2 of Consent Decree number 3:06CV728PCD "Consent Decree" issued by the United States Environmental Protection Agency on August 17, 2006. The permittee shall start reporting the information required in Section 9(B) below if: 1) The Consent Decree is terminated, or 2) the Consent Decree is modified in such a way to no longer require the preventive Maintenance Information to be

reported or 3) the District fails to submit the Maintenance Information pursuant to the Consent Decree in any given year.

B) No later than February 15th, annually, the Permittee shall submit to the Commissioner an updated listing of all wastewater treatment plant and collection system improvements and all sewer extensions performed during the most recent calendar year at the address specified above in Section 7 (B) of this permit. At a minimum the following information must be included in the submission:

1. The street name or nearest identifiable location to where the project was performed,
2. the total linear feet of pipe replaced or repaired,
3. the total number of manholes repaired or replaced,
4. a description of significant work (outside routine maintenance) performed at pump stations,
5. a project listing with significant proposed collection system and plant improvements (outside routine maintenance) for the following calendar year.

C) No later than February 15th, annually, the Permittee shall submit a description of significant work, if any, performed outside routine maintenance at the POTW.

This permit is hereby issued on: June 16, 2022.

Graham J. Stevens
Bureau Chief
Bureau of Water Protection and Land Reuse

ATTACHMENT 1

Tables A through G

TABLE A

Discharge Serial Number (DSN): **001-1**	Monitoring Location: **1**
Wastewater Description: **Secondary treated effluent**	
Monitoring Location Description: **Final Effluent Prior to Chlorination (See Remark (D))**	
Allocated Zone of Influence (ZOI): **100 cfs**	In-stream Waste Concentration (IWC): **7.2 %**

PARAMETER	Units	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			REPORT FORM	Minimum Level Analysis See Section 6
		Average Monthly Limit	Maximum Daily Limit	Sample Freq.	Sample type	Instantaneous Limit or Required Range[4]	Sample Freq.	Sample Type		
Aluminum, Total [6 & 7]	mg/l	------	------	Monthly	Daily Composite	NA	NA	NA	MOR	*
Alkalinity	mg/l	NA	NA	NR	NA	------	Monthly	Grab	MOR	
Biochemical Oxygen Demand (5 day) [1] See remark (A) below.	mg/l	30	50	3/week	Daily Composite	NA	NR	NA	DMR/MOR	
Carbonaceous Biochemical Oxygen Demand (5 day).[5]	mg/l	------	------	Biweekly	Daily Composite	NA	NR	NA	DMR/MOR	
Chlorine, Total Residual May 1st through September 30th see remarks (B) and (D) below.	mg/l	0.05[2]	0.10[2]	NR	Grab	0.20	4/ Work Day	Grab	DMR/MOR	*
Escherichia coli May 1st through September 30th see remarks (C) and (D) below	MPN per100 ml	NA	NA	NR	NA	410	3/week	Grab	DMR/MOR	
Flow	MGD	------	------	Continuous[3]	Average Daily Flow	NA	NR	NA	DMR/MOR	
Nitrogen, Ammonia (total as N)	mg/l	NA	------	Monthly	Daily Composite	NA	NR	NA	MOR	
Nitrogen, Nitrate (total as N)	mg/l	NA	------	Monthly	Daily Composite	NA	NR	NA	MOR	
Nitrogen, Nitrite (total as N)	mg/l	NA	------	Monthly	Daily Composite	NA	NR	NA	MOR	
Nitrogen, Total Kjeldahl	mg/l	NA	------	Monthly	Daily Composite	NA	NR	NA	MOR	
Nitrogen, Total	mg/l	NA	------	Monthly	Daily Composite	NA	NR	NA	MOR	
Nitrogen, Total	lbs/day	NA	------	Monthly	Daily Composite	NA	NR	NA	MOR	
Oxygen, Dissolved See remark (D) below	mg/l	NA	NA	NR	NA	------	Work Day	Grab	MOR	
pH	S.U.	NA	NA	NR	NA	6 - 9	Work Day	Grab	DMR/MOR	
Phosphate, Ortho	mg/l	NA	------	Monthly	Daily Composite	NA	NR	NA	MOR	
Phosphorus, Total	mg/l	NA	------	Monthly	Daily Composite	NA	NR	NA	DMR/MOR	*
Solids, Settleable	ml/l	NA	NA	NR	NA	------	Work Day	Grab	MOR	

Solids, Total Suspended[1] See remark (A) below.	mg/l	30	50	3/week	Daily Composite	NA	NA	NA	DMR/MOR	
Temperature	^{o}F	NA	NA	NR	NA	------	Work Day	Grab	MOR	
Turbidity	NTU	NA	NA	NR	NA	------	Work Day	Grab	MOR	

TABLE A – CONDITIONS

Footnotes:

1 The discharge shall not exceed a BOD_5 Average Monthly Limit of **30** mg/l or a BOD_5 Maximum Daily Limit of **50** mg/l. The discharge shall not exceed a total suspended solids Average Monthly Limit of **30** mg/l or a total suspended solids Maximum Daily Limit of **50** mg/l.

2 The Maximum Daily Concentration to be reported shall be determined by mathematically averaging the results of the four grab samples required above. The Average Monthly Concentration shall be determined by mathematically averaging the results of the Maximum Daily Concentrations required above.

3 The Permittee shall record and report on the Monthly Operating Report (MOR) the minimum, maximum and total flow for each day of discharge and the average daily flow for each sampling month. The Permittee shall report, on the discharge monitoring report, the average daily flow and maximum daily flow for each sampling month.

4 The instantaneous limits in this column are maximum limits.

5 CBOD shall be tested on the same final effluent sample collected for one of the BOD_5 tests.

6 The permittee shall reduce the amount of aluminum-based products used in the wastewater treatment process to the maximum extent practicable.

7 The permittee may discontinue the monitoring of this parameter provided that prior to such discontinuation, the Commissioner is notified in writing by the Permittee that the use of Poly-aluminum Chloride has been ceased at the POTW. Nothing in this section of the permit shall preclude the Commissioner from reinstating, through a written notification to the Permittee, a previously discontinued monitoring requirement if the POTW's effluent water quality conditions support such reinstatement.

Remarks:

(A) The Average Weekly Limitation for BOD_5 and Total Suspended Solids shall be 1.5 times the Average Monthly Limit listed above.

(B) The use of chlorine for disinfection and sodium bisulfite for dechlorination shall be discontinued from October 1st through April 30th except that chlorination and dechlorination equipment may be started and tested no earlier than April 15th, and any residual chlorine liquid and sodium bisulfite may be used up until, but no later than, October 15th. During these times in April and October the total residual chlorine of the effluent shall not be greater than **0.5** mg/l, as an instantaneous limit, and **0.2** mg/l, as a maximum daily limit. The analytical results shall be reported on the MOR for the months of April and October.

(C) The geometric mean of the Escherichia coli bacteria values for the effluent samples collected in a period of a calendar month during the period from May 1st through September 30th shall not exceed 126 per 100 milliliters.

(D) Samples for Dissolved Oxygen, Residual Chlorine and Escherichia coli are taken after chlorination/dechlorination during the period that chlorine for disinfection and sodium bisulfite for dechlorination are being used

DMR – Discharge Monitoring Report

TABLE B

Discharge Serial Number (DSN): **001-1**		Monitoring Location: **K**			
Wastewater Description: **Secondary treated effluent**					
Monitoring Location Description: **Final Effluent (Prior to chlorination)**					
Allocated Zone of Influence (ZOI): **100 cfs**		In-stream Waste Concentration (IWC): **7.2 %**			
PARAMETER	**Units**	**FLOW/TIME BASED MONITORING**			**REPORT FORM**
		Average Monthly Minimum	**Sample Freq.**	**Sample type**	
Biochemical Oxygen Demand (5 day) Percent Removal[1]	% of Influent	85	**3/week**	Calculated[2]	DMR
Solids, Total Suspended Percent Removal[1]	% of Influent	85	**3/week**	Calculated[2]	DMR

TABLE B – CONDITIONS

Footnotes:

[1] The discharge shall be less than or equal to 15% of the average monthly influent BOD_5 and total suspended solids (Table D, Monitoring Location G).

[2] Calculated based on the average monthly results described in Table A. Removal efficiency = $\frac{\text{Inf.BOD or TSS - Effluent BOD or TSS}}{\text{Inf.BOD or TSS}} \text{ X } 100$

TABLE C

Discharge Serial Number (DSN): **001-1**			Monitoring Location: **T**			
Wastewater Description: **Secondary treated effluent**						
Monitoring Location Description: **Final Effluent Prior to Chlorination[2]**						
Allocated Zone of Influence (ZOI): **100 cfs**			In-stream Waste Concentration (IWC): **7.2 %**			
PARAMETER	**Units**	**Maximum Daily Limit**	**Sampling Frequency**	**Sample Type**	**Reporting form**	**Minimum Level Analysis See Section 6**
Aluminum, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Antimony, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
NOAEL Static 48Hr Acute D. Pulex[1]	% survival	------	Quarterly	Daily Composite	ATMR/DMR	
NOAEL Static 48Hr Acute Pimephales Promelas[1]	% survival	------	Quarterly	Daily Composite	ATMR/DMR	
Arsenic, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Beryllium, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
BOD_5	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	
Cadmium, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Chromium, Hexavalent	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Chromium, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Chlorine, Total Residual	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Copper, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Cyanide, Amenable	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	
Cyanide, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Iron, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Lead, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Mercury, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Nickel, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Nitrogen, Ammonia (total as N)	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	
Nitrogen, Nitrate, (total as N)	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	
Nitrogen, Nitrite, (total as N)	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	
Phenols, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	
Phosphorus, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	
Selenium, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Silver, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Suspended Solids, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	
Thallium, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Zinc, Total	mg/l	------	Quarterly	Daily Composite	ATMR/DMR	*
Carbon, Dissolved Organic [3]	mg/l	------	Annually	Daily Composite	Annual Report	
pH [3]	S.U.	------	Annually	Daily Composite	Annual Report	
Hardness [3]	mg/l	------	Annually	Daily Composite	Annual Report	

TABLE C - CONDITIONS

Remarks:

[1]The results of the Toxicity Tests are recorded in % survival. The Permittee shall report % survival on the DMR based on criteria in Section 6(B) of this permit.

[2]Samples are taken after chlorination/dechlorination during the period that chlorine for disinfection and sodium bisulfite for dechlorination are being used.

[3] Performed as part of the annual Chronic Toxicity Test. See section 6(C) for additional requirements.

ATMR – Aquatic Toxicity Monitoring Report

TABLE D

Discharge Serial Number: **001-1**	Monitoring Location: **G**
Wastewater Description: **Sanitary Sewage**	
Monitoring Location Description: **After preliminary treatment**	

PARAMETER	Units	DMR REPORTING FORMAT	FLOW/TIME BASED MONITORING		INSTANTANEOUS MONITORING		REPORTING FORM
			Sample Frequency	Sample Type	Sample Frequency	Sample Type	
Biochemical Oxygen Demand (5 day)	mg/l	Monthly average	3/week	Daily Composite	NA	NA	DMR/MOR
Nitrogen, Ammonia (total as N)	mg/l	NA	Monthly	Daily Composite	NA	NA	MOR
Nitrogen, Nitrate (total as N)	mg/l	NA	Monthly	Daily Composite	NA	NA	MOR
Nitrogen, Nitrite (total as N)	mg/l	NA	Monthly	Daily Composite	NA	NA	MOR
Nitrogen, Total Kjeldahl	mg/l	NA	Monthly	Daily Composite	NA	NA	MOR
Nitrogen, Total	mg/l	NA	Monthly	Daily Composite	NA	NA	MOR
Phosphate, Ortho	mg/l	NA	Monthly	Daily Composite	NA	NA	MOR
Phosphorus, Total	mg/l	NA	Monthly	Daily Composite	NA	NA	MOR
pH	S.U.	NA	NA	NA	Work Day	Grab	MOR
Solids, Total Suspended	mg/l	Monthly average	3/week	Daily Composite	NA	NA	DMR/MOR
Temperature	°F	NA	NA	NA	Work Day	Grab	MOR

TABLE E

Discharge Serial Number: **001-1**	Monitoring Location: **P**
Wastewater Description: **Primary Effluent**	
Monitoring Location Description: **Primary Sedimentation Basin Effluent**	

PARAMETER	Units	REPORTING FORMAT	TIME/FLOW BASED MONITORING		INSTANTANEOUS MONITORING		REPORTING FORM
			Sample Frequency	Sample Type	Sample Frequency	Sample type	
Alkalinity, Total	mg/l	NA	NA	NA	Monthly	Grab	MOR
Biochemical Oxygen Demand (5 day)	mg/l	Monthly average	Weekly	Composite	NA	NA	MOR
Nitrogen, Ammonia (total as N)	mg/l	NA	Monthly	Composite	NA	NA	MOR
Nitrogen, Nitrate (total as N)	mg/l	NA	Monthly	Composite	NA	NA	MOR
Nitrogen, Nitrite (total as N)	mg/l	NA	Monthly	Composite	NA	NA	MOR
Nitrogen, Total Kjeldahl	mg/l	NA	Monthly	Composite	NA	NA	MOR
Nitrogen, Total	mg/l	NA	Monthly	Composite	NA	NA	MOR
pH	S.U.	NA	NA	NA	Monthly	Grab	MOR
Solids, Total Suspended	mg/l	Monthly average	Weekly	Composite	NA	NA	MOR

TABLE F

Discharge Serial Number: **001-1**	Monitoring Location**: SL**		
Wastewater Description**: Prior to completion of facility upgrade: Digester Sludge. Upon completion of facility upgrade: Holding tank sludge**			
Monitoring Location Description**: At sludge draw off**			
PARAMETER	**INSTANTANEOUS MONITORING**		**REPORTING FORM**
	Units	**Grab Sample Freq.**	
Arsenic, Total	mg/kg	Quarterly	DMR
Beryllium, Total	mg/kg	Quarterly	DMR
Cadmium, Total	mg/kg	Quarterly	DMR
Chromium, Total	mg/kg	Quarterly	DMR
Copper, Total	mg/kg	Quarterly	DMR
Lead, Total	mg/kg	Quarterly	DMR
Mercury, Total	mg/kg	Quarterly	DMR
Nickel, Total	mg/kg	Quarterly	DMR
Nitrogen, Ammonia *	mg/kg	Quarterly	DMR*
Nitrogen, Nitrate (total as N) *	mg/kg	Quarterly	DMR*
Nitrogen, Organic *	mg/kg	Quarterly	DMR*
Nitrogen, Nitrite (total as N) *	mg/kg	Quarterly	DMR*
Nitrogen, Total *	mg/kg	Quarterly	DMR*
pH *	S.U.	Quarterly	DMR*
Polychlorinated Biphenyls	mg/kg	Quarterly	DMR
Solids, Fixed	%	Quarterly	DMR
Solids, Total	%	Quarterly	DMR
Solids, Volatile	%	Quarterly	DMR
Zinc, Total	mg/kg	Quarterly	DMR
(*) required for composting or land application Testing for inorganic pollutants shall follow "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846 as updated and/or revised.			

TABLE G

Discharge Serial Number**: 001-1**	Monitoring Location: L		
Wastewater Description**: Digested sludge (Prior to completion of the facility expansion and upgrade)**			
Monitoring Location Description**: Each Anaerobic Digestion Unit**			
PARAMETER	**INSTANTANEOUS MONITORING**		**REPORTING FORM**
	Sample Frequency	Sample Type	
Temperature	Weekly	Grab	MOR
Alkalinity	Weekly	Grab	MOR
Volatile Acids	Weekly	Grab	MOR

pH	Weekly	Grab	MOR

ATTACHMENT 2

MONTHLY OPERATING REPORT FORM

DATA TRACKING AND TECHNICAL FACT SHEET

PERMITTEE: The Metropolitan District

PERMIT, ADDRESS, AND FACILITY DATA

PERMIT #: CT0100994 **APPLICATION #:** 202004966 **FACILITY ID.** 164-001

Mailing Address:	Location Address:
Street: 555 Main St.	Street: 1222 Poquonock Ave.
City: Hartford ST: CT Zip: 06103	City: Windsor ST: CT Zip: 06095
Contact Name: Tom Tyler	Contact Name: Carl Veilleux
Phone No.: 860-278-7850 ext. 3511	Phone No.: 860-278-7850 ext. 3496 DMR Contact email address: cveilleux@themdc.com

PERMIT INFORMATION

DURATION 5 YEAR _X_ 10 YEAR ___ 30 YEAR ___

TYPE New _ Reissuance **X** Modification ___

CATEGORIZATION POINT (X) NON-POINT ( ) GIS #

NPDES (X) PRETREAT () GROUND WATER(UIC) ( ) GROUND WATER (OTHER) ( )

NPDES MAJOR**(MA)** _X_
NPDES SIGNIFICANT MINOR or PRETREAT SIU **(SI)** ____.
NPDES or PRETREATMENT MINOR **(MI)** ____

COMPLIANCE SCHEDULE YES__ NO___
POLLUTION PREVENTION ___ TREATMENT REQUIREMENT__
WATER QUALITY REQUIREMENT __ OTHER ____

COMPLIANCE SCHEDULE YES__ NO_**X**
POLLUTION PREVENTION ___ TREATMENT REQUIREMENT__
WATER QUALITY REQUIREMENT __ OTHER ____

OWNERSHIP CODE
Private __ Federal __ State __ Municipal (town only) _ Other public X

DEEP STAFF ENGINEER Steve Muollo/Carlos Esguerra **DATE DRAFTED:** June 2, 2020 / September & November 2021

PERMIT FEES

Discharge Code	DSN Number	Annual Fee
111000**d**	001-1	$2,682.50

APPLICATION FEE PAID ☒ YES ☐ NO

PROCESSING FEE PAID ☒ YES ☐ NOT

ANNUAL FEE PAID ☒ YES ☐ NO

PUBLIC NOTICE
Date of Public Notice: _1/4/2022_____
Date Permit Cleared Public Notice: 2/3/2022_____
Date Public Notice Fees Paid: 2/8/2022_____

FOR NPDES DISCHARGES
Drainage Basin Code: 4300 Water Quality Classification Goal: B
Segment: Farmington 01

NATURE OF BUSINESS GENERATING DISCHARGE
Municipal Sanitary Sewage Treatment

PROCESS AND TREATMENT DESCRIPTION (by DSN)
Secondary biological treatment with seasonal chlorination/dechlorination

RESOURCES USED TO DRAFT PERMIT

___ *Federal Effluent Limitation Guideline 40CFR 133 Secondary Treatment Category*

__ *Performance Standards*

__ *Federal Development Document*
name of category

_X_ *Department File Information*

_X_ *Connecticut Water Quality Standards*

_X_ *Anti-degradation Policy*

__ *Coastal Management Consistency Review Form*

__ *Other - Explain*

BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS

_X_ *Secondary Treatment (Section 22a-430-4(r) of the Regulations of Connecticut State Agencies)*

__ *Case-by-Case Determination (See Other Comments)*

_X_ *In order to meet in-stream water quality (See General Comments)*

__ *Anti-degradation policy*

GENERAL COMMENTS
The Metropolitan District Commission (MDC) operates a municipal water pollution control facility ("the facility") located at 1222 Poquonock Ave., Windsor. The facility is designed to treat and discharge up to 5.0 million gallons a day of effluent into Farmington River. The facility currently uses secondary treatment and chlorine disinfection to treat effluent before being discharged. Pursuant to Conn. Gen. Stat. § 22a-430, the Department of Energy and Environmental Protection has issued MDC a permit for the discharge from this facility. MDC has submitted an application to renew its permit. The Department has made a tentative determination to approve MDC's application and has prepared a draft permit consistent with that determination.

$CBOD_5$ has been changed to BOD_5 monitoring to be tested 3 times per week. CBOD testing with a testing frequency of twice per month has been continued in the new permit as a monitoring-only parameter. DEEP will use this parameter in models to assess ambient water quality conditions in receiving streams.

Section 9(A) in the NPDES permit requires MDC to submit certain O&M information about the sewerage system on an annual basis. Since MDC is currently under an enforcement action EPA (Consent Decree # 306CV00728) from the EPA for SSO closures, which already requires them to submit the same information annually to the Department for all of their sewerage facilities except for the treatment facility, the Department has decided to accept the information being submitted under this consent decree with the exception of the wastewater treatment facility.

The facility adds Poly-aluminum Chloride (i.e., PAC) to the trickling filter effluent to improve solids settleability in the secondary clarifiers. However, the use of PAC is a temporary condition that is implemented while the facility prepares to replace the trickling filter media that has exceeded its operational life. As explained below, the filter media will be replaced as part of a larger Nitrogen removal project. This project is in design and expected to be bid later in 2021. Once the new media is installed in the trickling filter, the use of PAC is expected to be discontinued. Additionally, EPA promulgated new Aquatic Life Ambient Water Quality criteria for Aluminum in freshwaters in 2018. The new criteria recommend the monitoring of Dissolved Organic Carbon (DOC), pH and hardness. DOC is a key parameter under the revised criteria as this parameter can promote or hinder the bioavailability of aluminum in the aquatic environment. The collection of these data will allow DEEP to confirm in the next permit cycle whether an Aluminum limit pursuant to the new EPA criteria is warranted. As an interim condition, monthly effluent monitoring of Aluminum has been included in Table A of the permit which in combination with the previously noted parameters will allow DEEP to assess the need for future limits following the new criteria. As previously noted, it is anticipated that once the trickling filter upgrade is completed, the use of PAC will be discontinued. For this reason, the permit includes language allowing the permittee to request the discontinuation of DOC, pH and hardness monitoring included in section 6(C)(3)(b) of the permit once the use of PAC is ceased. The Commissioner retains the authority to reinstate the monitoring parameters listed in this section of the permit if the effluent quality conditions support such reinstatement.

The MDC is in the process of designing an upgrade of the facility. This will include the addition of a denitrifying MBBR process prior to the trickling filters, resulting in an MLE configuration for nitrogen removal. The upgrade will also include influent screening upgrade and conversion of aging digesters to sludge holding tanks. Sampling requirements for the digesters will no longer be required following the upgrade.

SUMMARY OF COMMENTS RECEIVED DURING THE PUBLIC NOTICE PERIOD AND THE DEPARTMENT'S RESPONSES

☐ *The Department has received no written comments on the proposed action. (REVIEW BY MANAGEMENT ONLY)*

☐ *Staff has reviewed the written comments and responded to the comments, no significant permit changes have been made. (REVIEW BY SUPERVISOR AND MANAGEMENT ONLY)*

☒ *The Department has received and Staff has reviewed written comments on the proposed action and made significant changes as follows: (ADD COMMENTS, RESPONSES AND PERMIT CHANGES) (REVIEW BY PERMIT STAFF, SUPERVISOR AND MANAGEMENT)*

The comments and response to those comments are attached to this fact sheet.

SPECIFIC REQUIREMENTS OR REVISIONS

The Department reviewed the application for consistency with Connecticut's Water Quality Standards and determined that with the limits in the draft permit, including those discussed below, that the draft permit is consistent with maintenance and protection of water quality in accordance with the Tier I Anti-degradation Evaluation and Implementation Review provisions of such Standards.

The need for inclusion of water quality-based discharge limitations in this permit was evaluated consistent with Connecticut Water Quality Standards and criteria, pursuant to 40 CFR 122.44(d). Discharge monitoring data was evaluated for consistency with the available aquatic life criteria (acute and chronic) and human health (fish consumption only) criteria, considering the zone of influence allocated to the facility where appropriate. In addition to this review, the statistical procedures outlined in the EPA Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001) were employed to calculate the need for such limits. Comparison of the attached monitoring data and its inherent variability with the calculated water quality-based limits indicates there may be a statistical probability of exceeding such limits.

WATER QUALITY LIMIT CALCULATIONS
See attached

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Carlos Esguerra
Department of Energy and Environmental Protection
Bureau of Water Protection and Land Reuse
Water Planning and Management Division
79 Elm Street
Hartford, Connecticut 06106-5127

02.04.2022

Dear Carlos Esguerra,

I am submitting comments on the draft National Pollutant Discharge Elimination System (NPDES) permit for the Metropolitan District (MDC) Windsor Wastewater Treatment Plant (WWTP) on behalf of the Connecticut River Conservancy, formerly the Connecticut River Watershed Council. The facility discharges to the Farmington River, a major tributary to the Connecticut River and so it is of relevance to us.

The Farmington River in Windsor is impaired for recreation due to E. coli levels. Considering this impairment and the permit violations triggered by excessive E. coli levels at the facility (34% and 75% in July of 2019 and September of 2021, respectively), we are request DEEP respond with information regarding what actions the facility is taking to address these violations.

While we are glad to see MDC is planning updates to the Windsor WWTP, the plans indicate continuing effluent disinfection with chlorine, a process that can, and has resulted in excess chlorine residue. Chlorination is potentially toxic to fish, creates hazardous byproducts, presents a persistent residual, reacts with ammonia and is corrosive. UV radiation is a nontoxic, environmentally safe, and economically sensible alternative harmful chlorine disinfection process.[1] As the MDC works to upgrade its infrastructure in Windsor, we ask DEEP to work with MDC to create a timeline for adopting UV radiation to treat effluent and urge the DEEP to include a compliance schedule for implementation in this draft permit, as was done for the Somers NPDES permit in 2020.

The draft permit requires the WWTP conduct monthly daily composite sampling of aluminum, in addition to monitoring of Dissolved Organic Carbon (DOC), pH and hardness, to assess the need limits in future permitting processes. As the MDC works to replace the trickling filter media and adds poly-aluminum chloride (PAC) to the trickling filter effluent, we request that DEEP consider EPA's monitoring requirements of both effluent samples and upstream ambient water samples, as outlined in the Region 1 General NPDES permit for Massachusetts and New Hampshire. Samples are analyzed for total recoverable Al monthly and, in New Hampshire, with the conservative assumption that the entire fraction of measured total recoverable aluminum is in the acid soluble form. Not only will this monitoring requirement provide valuable data for consideration in the next permitting process, but this will also standardize data collection across the Connecticut River

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watershed. Finally, the draft permit states that work to upgrade the WWTP facility will begin in late 2021 and PAC use will be discontinued at the conclusion of the update. We request a timeline of the project and anticipated end date for the discontinuation of PAC.

I appreciate the opportunity to provide comments on the draft permit. I can be reached at kwentling@ctriver.org or (860) 704-0057.

Kelsey J Wentling

Kelsey Wentling (she/her)
River Steward
Connecticut River Conservancy

MDC

The Metropolitan District

water supply • environmental services • geographic information

March 30, 2022

Carlos Esguerra
Sanitary Engineer 3
Water Planning and Management Division
Bureau of Water Protection & Land Reuse
Connecticut Department of Energy and Environmental Protection
79 Elm Street, Hartford, CT 06106-5127

RE: Response to comments received on the Poquonock WPCF draft NPDES permit

Dear Mr. Esguerra:

Thank-you for providing the District with the comments CT DEEP received from the Connecticut River Conservancy (CRC) during the public comment period on the draft NPDES permit for the Poquonock WPCF. We appreciate the opportunity to provide a response to CT DEEP. Below please find the specific comments from the CRC and the District response.

CRC Comment 1: *The Farmington River in Windsor is impaired for recreation due to E. coli levels. Considering this impairment and the permit violations triggered by excessive E. coli levels at the facility (34% and 75% in July of 2019 and September of 2021, respectively), we are request DEEP respond with information regarding what actions the facility is taking to address these violations.*

District Response: On 7/17/2019 the PWPCF recorded an E. Coli max daily exceedance of 551 colonies per 100 ml. This was properly reported to DEEP within the 2-hour requirement. The root cause of the exceedance was attributed to the failure of an automated system that controls the output volume of a disinfection chemical pump. A correction was made in the control system program for the disinfection chemical pumping system. This correction was implemented successfully and no further similar incidences have occurred. Please note that despite daily exceedance, the facility fully met the monthly disinfection permit criteria. While the District employs a sophisticated supervisory control and data acquisition, no reasonable level of technology could have predicted this event and prevented its occurrence.

On 9/1/2019 the PWPCF recorded an E. Coli max daily exceedance of 719 colonies per 100 ml. This was properly reported to DEEP within the 2-hour requirement. The root cause of the exceedance was attributed to a significant storm (Hurricane Ida) that delivered a very large volume of inflow to the facility, pushing it considerably beyond it's permitted treatment capacity and associated safety factor. The facility recorded 6 inches of rain within a 24-hour period, causing the influent volume to double the plant's designed capacity to treat. Please note that despite the daily exceedance, the facility fully met the monthly disinfection permit criteria, had no other hurricane-related issues and had zero other exceedances in the calendar year.

An additional contributing factor to the 9/1/2019 event was that the facility was performing required maintenance on a primary sedimentation tank when the storm delivered the historic flows. Placing the tank back into service would have put staff in an unsafe environment and potentially cause damage to equipment – neither of which the District was willing to do. Given the extreme weather event, the facility did an outstanding job maintaining compliance to extent that it did.

The PWPCF staff does a consistently terrific job meeting NPDES criteria. A minimum of 65 E. Coli samples are taken in a typical disinfection season; so, a minimum of 130 samples were taken and analyzed in the two years noted above, one during a Hurricane, and only two exceeded the standard. While we always strive for 100% compliance, 99% is an admirable achievement, especially considering the extenuating circumstances.

CRC Comment 2: *While we are glad to see MDC is planning updates to the Windsor WWTP, the plans indicate continuing effluent disinfection with chlorine, a process that can, and has resulted in excess chlorine residue. Chlorination is potentially toxic to fish, creates hazardous byproducts, presents a persistent residual, reacts with ammonia and is corrosive. UV radiation is a nontoxic, environmentally safe, and economically sensible alternative harmful chlorine disinfection process.1 As the MDC works to upgrade its infrastructure in Windsor, we ask DEEP to work with MDC to create a timeline for adopting UV radiation to treat effluent and urge the DEEP to include a compliance schedule for implementation in this draft permit, as was done for the Somers NPDES permit in 2020.*

District Response: While the District understands there are benefits to UV disinfection, as we operate that process at the HWPCF, we also understand the limitations of the process. The District undergoes a thorough engineering-based process to select each treatment process implemented at each facility, and the CT DEEP collaborates in this process throughout the design continuum. There are no 'one size fits all' solutions when selecting a treatment process due to the multitude of variables that must be considered in each unique situation.

The PWPCF has utilized a dechlorination agent for many years. The proper use of this agent safely eliminates chlorine residuals in the receiving water. This process addresses the CRC concerns of *potentially toxic to fish, creates hazardous byproducts, presents a persistent residual, reacts with ammonia and is corrosive".*

CRC also comments on chlorination resulting in, "*in excess chlorine residue.*" The PWPCF records indicates that the facility has never experienced a failure of its dechlorination process and recorded an 'excess chlorine residual', so it is not clear if this comment is directed specifically to the PWPCF, which, if it is, would be wholly incorrect. The District has made significant capital and O&M investments in the chlorination and dechlorination systems and stands by the robustness and reliability of our infrastructure and more importantly, the professionalism and competency of our licensed operators and skilled maintenance staff.

Additionally, acute and chronic toxicity sampling has consistently demonstrated, for more than 15 years, a survivability rate in excess of 95% for fathead minnows and daphnia.

CRC Comment 3: *The draft permit requires the WWTP conduct monthly daily composite sampling of aluminum, in addition to monitoring of Dissolved Organic Carbon (DOC), pH and hardness, to assess the need limits in future permitting processes. As the MDC works to replace the trickling filter media and adds poly-aluminum chloride (PAC) to the trickling filter effluent, we request that DEEP consider EPA's monitoring requirements of both effluent samples and upstream ambient water samples, as outlined in the Region 1 General NPDES permit for Massachusetts and New Hampshire. Samples are analyzed for total recoverable Al monthly and, in New Hampshire, with the conservative assumption that the entire fraction of measured total recoverable aluminum is in the acid soluble form. Not only will this monitoring requirement provide valuable data for consideration in the next permitting process, but this will also standardize data collection across the Connecticut River watershed. Finally, the draft permit states that work to upgrade the WWTP facility will begin in late 2021 and PAC use will be discontinued at the conclusion of the update. We request a timeline of the project and anticipated end date for the discontinuation of PAC.*

District Response: While this may be most appropriate for CT DEEP staff to respond to, the District offers that upon completion of the plant upgrade now in-progress, the use of polyaluminum chloride is intended to be significantly reduced or possibly even eliminated.

Please contact me at (860) 278-7850 ext. 3548, or via email at jbowers@themdc.com, if you have any questions. The District is agreeable to discussing our responses to the CRC comments with CRC and CT DEEP, if CT DEEP wishes to facilitate a meeting.

Very truly yours,

THE METROPOLITAN DISTRICT

Jeffery Bowers
Manager of Water Pollution Control

cc: Thomas A. Tyler, P.E., Director of Facilities & Maintenance
Carl Veilleux, Poquonock WPCF Supervisor

Connecticut Department of
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Memo

To: Kelsey Wentling, CT River Conservancy (CRC)

From: Carlos Esguerra, CT DEEP

CC: Jeff Bowers, MDC

Date: 5/3/2022

Re: CRC's comments on proposed Windsor-Poquonock NPDES permit

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Dear Ms. Wentling,

We are in receipt of CRC's comments dated February 4, 2022. We asked MDC to provide responses to the concerns raised in your letter which have been attached to this memorandum to supplement the responses provided herein.

1) **CRC comment #1:** The Farmington River in Windsor is impaired for recreation due to E. coli levels. Considering this impairment and the permit violations triggered by excessive E. coli levels at the facility (34% and 75% in July of 2019 and September of 2021, respectively), we are request DEEP respond with information regarding what actions the facility is taking to address these violations.

   DEEP response: We find MDC's responses to these incidents acceptable.

2) **CRC Comment # 2:** While we are glad to see MDC is planning updates to the Windsor WWTP, the plans indicate continuing effluent disinfection with chlorine, a process that can, and has resulted in excess chlorine residue. Chlorination is potentially toxic to fish, creates hazardous byproducts, presents a persistent residual, reacts with ammonia and is corrosive. UV radiation is a nontoxic, environmentally safe, and economically sensible alternative harmful chlorine disinfection process. As the MDC works to upgrade its infrastructure in Windsor, we ask DEEP to work with MDC to create a timeline for adopting UV radiation to treat effluent and urge the DEEP to include a compliance schedule for implementation in this draft permit, as was done for the Somers NPDES permit in 2020.

   DEEP response: A review of reported chlorine effluent levels for the last 5 years indicate that the facility has not experienced excursions above permit limits related to this parameter based on the samples collected on a workday basis. It is also important to note that those facilities that perform chlorine disinfection and that have an assigned instream waste concentration (IWC) greater than 2% are required by DEEP to dechlorinate. No acute toxicity impacts have been detected in effluent samples from this facility based on data reported via net-DMR. Based on this evidence, DEEP does not currently see a need to require this facility to convert its Chlorination/dichlorination system to a UV light disinfection system.

3) **CRC Comment # 3:** The draft permit requires the WWTP conduct monthly daily composite sampling of aluminum, in addition to monitoring of Dissolved Organic Carbon (DOC), pH and hardness, to assess the need limits in future permitting processes. As the MDC works to replace the trickling filter media and adds poly-aluminum chloride (PAC) to the trickling filter effluent, we request that DEEP consider EPA's monitoring requirements of both effluent samples and upstream ambient water samples, as outlined in the Region 1 General NPDES permit for Massachusetts and New Hampshire. Samples are analyzed for total recoverable Al monthly and, in New Hampshire, with the conservative assumption that the entire fraction of measured total recoverable aluminum is in the acid soluble form. Not only will this monitoring requirement provide valuable data for consideration in the next permitting process, but this will also standardize data collection across the Connecticut River

DEEP Response: The use of coagulant products such as PAC, alum or ferric chloride is common at those facilities that have Phosphorus removal requirements. Phosphorus removal requirements do not apply to the CT River (and other tidal freshwaters in the State). The use of PAC at the Windsor-Poquonock facility is a unique circumstance that is driven by the condition of the trickling filter media. As the replacement of this media is completed, it is anticipated that the use of PAC will be eliminated or significantly reduced. Phosphorus removal requirements do not apply to the Windsor-Poquonock facility given its close proximity to the CT River.

In regards to the Aluminum monitoring criteria to be adopted in CT, DEEP started to collect effluent and ambient water quality data from facilities that have Phosphorus limits following the Final Aquatic Life Criteria for Aluminum in Freshwaters adopted by EPA in 2018. You can access a fact sheet for the new criteria via this link aluminum-criteria-final-factsheet.pdf (epa.gov). These monitoring requirements will be particularly important in those facilities that use PAC or alum to enhance Phosphorus removal. A robust set of site-specific monitoring requirements is being added to these facilities' permits as they come up for reissuance. The new effluent and ambient datasets will be evaluated on a watershed basis to assess the impacts on receiving waters. It is anticipated that CT DEEP may in the future formally adopt the referenced EPA criteria in the CT Water Quality Regulations and assign aluminum effluent limits based on documented impairments.

In conclusion, CTDEEP will maintain the current monitoring requirements included in the draft permit. These monitoring requirements are commensurate with the current and expected use of PAC at this facility. Having said that, the DEEP will continue to monitor aluminum on a monthly frequency as shown in Table A of the permit (under normal circumstances this parameter would be monitored on a quarterly basis via the ATMRs). The facility has been asked to reduce the amount of PAC with the goal of significantly reducing or eliminating its use. We will evaluate the need for the continuation of the proposed monitoring requirements or limits in the next permit application review cycle.

Thank you for your comments on the proposed draft permit. Should you have any further questions on the matters discussed herein, please contact me at 860-424-3756 or at carlos.esguerra@ct.gov.

From: Iott, Traci
To: Esguerra, Carlos; Gatter-Evarts, Rosemary
Subject: Re: MDC Windsor POTW NPDES Permit Renewal
Date: Monday, February 14, 2022 1:26:00 PM

Hi Carlos -

We agree with requiring the more sensitive test method and prefer the lower end of the range for the ML.

Thanks for the follow up.

Traci

Traci Iott
Supervising Environmental Analyst
Water Quality Group
Bureau of Water Protection & Land Reuse
CT Department of Energy and Environmental Protection

Email: traci.iott@ct.gov
Phone: 860-424-3082

From: Esguerra, Carlos <Carlos.Esguerra@ct.gov>
Sent: Monday, February 14, 2022 12:08 PM
To: Gatter-Evarts, Rosemary <Rosemary.Gatter-Evarts@ct.gov>; Iott, Traci <Traci.Iott@ct.gov>
Subject: RE: MDC Windsor POTW NPDES Permit Renewal

Hi Traci and Rosemary,

I wanted to circle back to this email. Just want to confirm that you support lowering the MQLs for these two parameters?.

I can change the minimum levels in the draft permit

Parameter	Current ML	Requested	EPA Method	ML Range
Arsenic	0.005 mg/l (5 ug/l)	0.01 ug/l (10 ng/l)	1632	0.01 to 50 ug/L
Mercury	0.0002 mg/l (0.2 ug/l)	0.0005 ug/l (0.5 ng/l)	1631E	0.0005 to 0.1 ug/l

Please note that the EPA's methods provide a minimum quantification limit range. Would you like to adopt the low OR the high end of the range?

Thanks,

Carlos

From: Gatter-Evarts, Rosemary <Rosemary.Gatter-Evarts@ct.gov>
Sent: Monday, February 7, 2022 4:17 PM
To: Iott, Traci <Traci.Iott@ct.gov>; Esguerra, Carlos <Carlos.Esguerra@ct.gov>
Subject: RE: MDC Windsor POTW NPDES Permit Renewal

No. Jay is asking for us to increase the Minimum level to 10 ug/l up from 5

Rosemary

Rosemary Gatter-Evarts
Water Quality Group
Connecticut Department of Energy and Environmental Protection
79 Elm Street, Hartford, CT 06106-5127 []
P: 860.424.3732 |

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[PROGRAM/UNIT/OFFICE WEB SITE ADDRESS – OPTIONAL]

From: Iott, Traci <Traci.Iott@ct.gov>
Sent: Monday, February 7, 2022 4:08 PM
To: Gatter-Evarts, Rosemary <Rosemary.Gatter-Evarts@ct.gov>; Esguerra, Carlos <Carlos.Esguerra@ct.gov>
Subject: Re: MDC Windsor POTW NPDES Permit Renewal

Seems like Jay is suggesting that there are better analytical methods/quantification levels that can be used. I'm in favor of that. Would improve ability to evaluate potential WQ impacts associated with mercury and arsenic.

Traci

Traci Iott
Supervising Environmental Analyst
Water Quality Group
Bureau of Water Protection & Land Reuse
CT Department of Energy and Environmental Protection

Email: traci.iott@ct.gov
Phone: 860-424-3082

From: Gatter-Evarts, Rosemary <Rosemary.Gatter-Evarts@ct.gov>
Sent: Monday, February 7, 2022 8:29 AM
To: Esguerra, Carlos <Carlos.Esguerra@ct.gov>
Cc: Iott, Traci <Traci.Iott@ct.gov>
Subject: RE: MDC Windsor POTW NPDES Permit Renewal

I have routinely seen As report at 2 ug/l or below. A 10 ug/l minimum level is sometime used for instances involving saltwater. Although laboratory testing methods usually are below that and often seem to be the same as the freshwater. Furthermore Windsor Pequonnock routine reports As below 5 since September 1999. Occasionally below 1 ug/l. If anything to achieve a sufficiently sensitive method ,a method with a better detection limit should be encouraged. There is no need to Increasing a minimum level that has been routinely met by POTWs across the state and by Windsor since 1999 .

Rosemary

Rosemary Gatter-Evarts
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From: Esguerra, Carlos <Carlos.Esguerra@ct.gov>
Sent: Friday, February 4, 2022 1:14 PM
To: Iott, Traci <Traci.Iott@ct.gov>; Gatter-Evarts, Rosemary <Rosemary.Gatter-Evarts@ct.gov>
Cc: Patel, Nisha <Nisha.Patel@ct.gov>; Denny, Rowland <Rowland.Denny@ct.gov>; Jascot, Rebecca <Rebecca.Jascot@ct.gov>
Subject: RE: MDC Windsor POTW NPDES Permit Renewal

Hi Traci and Rosemary,

As the end of the public notice period for this draft is ending soon, would you please review the below comments and let us know how we should proceed?

Thanks,

Carlos

From: Jay Kulowiec <jay.kulowiec@gmail.com>
Sent: Monday, January 10, 2022 9:05 AM
To: Esguerra, Carlos <Carlos.Esguerra@ct.gov>
Cc: Inglese, Oswald <Oswald.Inglese@ct.gov>; Hart, Michael <Michael.Hart@ct.gov>; Gleason, Christine <Christine.Gleason@ct.gov>; Iott, Traci <Traci.Iott@ct.gov>
Subject: Re: MDC Windsor POTW NPDES Permit Renewal

This is a follow-up to my earlier comments.
-See attached the USEPA bulletin involving the Sufficiently Sensitive testing requirements under the CWA for NPDES permits.

-At least one other metal needs to be evaluated with respect to these requirements, namely arsenic(As)

Human Health Criteria for fish consumption : 0.021 ug/l (21 ng/l)
Proposed permit ML: 5 ug/ l (500 ng/l)
The proposed testing ML is not sufficiently sensitive)
CTDEEP needs to revise this ML to 10 ug/l, the ML achievable using USEPA methos 1632

Thank you for consideration of these comments.

On Fri, Jan 7, 2022 at 10:40 AM Jay Kulowiec <jay.kulowiec@gmail.com> wrote:

> CT DEEP public notices this proposed renewal permit on Jan 6, 2022. Following are my comments and questions :
> -Section 6(A)(5) specifies a "minimum "level of detection for many metals.In particular , for mercury(Hg), the minimum level specified is 0.0002 mg/l(Method 245.1), which is the same as 0.2 ug/l,or 200 ng/l
>
> -USEPA regulations (40 CFR 136) for testing under the CWA for NPDES permit renewal and routine permit monitoring require the use of the "sufficiently sensitive" methods in order to assess discharge impacts
>
> - In CT the ambient water quality criteria for mercury(Hg) are :
> acute aquatic protection : 1.4 ug/l (1400 ng/l)
> chronic aquatic protection : 0.77 ug/l (770 ng/l)
> Human health (fish consumption): 0.051 ug/l (51 ng/l)
> Hg is classified as a threshold toxicant (TT) and high bio-accumulator(HB)

HB constituents are not afforded " zone of influence " (See CT WQ Criteria Technical Support Document , January 2010) for establishing reasonable potential (RP) and subsequent effluent limits .The effluent limit has to be the water quality criteria

In the great lakes states (and in New York including all surface waters), USEPA and/or state agencies have required Hg monitoring using Method 1631E

The "most sensitive " method that USEPA has approved is Method 1631E. This method has minimum level of detection of 0.5-100 ng/l***[Esguerra, Carlos]*** 0.00005 mg/l

Consequently, the use of method 245.1 is not sensitive enough to determine if Hg levels in the discharge are an environmental concern with respect to fish consumption

Question : Did the permit application Attachment O testing or the last two years of discharge monitoring(required on a quarterly basis , see Table C of the current and proposed permits) use the required "most sensitive " method , 1631E ?

Question : The same question applies to the sampling of the receiving stream upstream of the discharge(See current and proposed permit Section 6(c)(2)(b)

This proposed permit , to be in conformance with USEPA regulations (40 CFR 136), should require that method 1631E be used for effluent monitoring and any ambient upstream monitoring .

These testing requirements I have identified should apply to all NPDES permits . This requirement has been applied to industrial NPDES permits since at least 2014.

Your timely consideration of these issues regarding Hg monitoring and potential effluent limits is much appreciated

--
Jay Kulowiec, PE

jay.kulowiec@gmail.com

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--
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