### NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMITS FOR SMALL WASTEWATER TREATMENT FACILITIES (WWTFs)

Note: These permits are organized as a single permit and are referred to herein as the "General Permit" or the "WWTF GP." The effluent limitations and specific conditions for facilities in Massachusetts and New Hampshire are contained in Parts II and III, respectively. Parts IV through VIII include conditions which are common to both permits. All modified or new language proposed in this General Permit Modification is in bold red font.

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The following documents are separate attachments to the WWTF General Permit:

Part VIII - Standard Conditions

Attachment A - Freshwater Acute Toxicity Test Procedure and Protocol, February 2011

Attachment B - Freshwater Chronic Toxicity Test Procedure and Protocol, March 2013

Attachment C – Marine Acute Toxicity Test Procedure and Protocol, July 2012

Attachment D - Marine Chronic Toxicity Test Procedure and Protocol, November 2013

Attachment E – List of Eligible Facilities, March 2023

### I. Applicability and Coverage of the WWTF GP

### A. Eligible Discharges

Wastewater treatment facilities, including publicly owned treatment works and other treatment works that treat domestic sewage (collectively "wastewater treatment facilities", "facilities" or "WWTFs") are classified as either a "major" or a "minor" discharger. "Major" dischargers are facilities with design flows equal to or greater than 1 million gallons per day (MGD) and any other facilities designated by EPA, in its discretion, as a "major" facility (40 CFR §§ 122.2, 124.2). All other facilities are generally classified as "minor" dischargers. Coverage under the WWTF GP is available only to minor facilities in Massachusetts and to major and minor facilities in New Hampshire that meet the requirements of this Part. See Attachment E for a list of eligible facilities.

## **B.** Geographic Coverage Area

- 1. <u>Massachusetts</u>: Facilities authorized by the Massachusetts WWTF General Permit (NPDES Permit No. MAG580000) for discharges in the Commonwealth of Massachusetts, may discharge to all waters of the Commonwealth and Indian Country lands, except as provided in Part I.C. of this permit, unless otherwise restricted by the Massachusetts Surface Water Quality Standards, 314 CMR § 4.00 (or as revised).
- 2. <u>New Hampshire</u>: Facilities authorized by the New Hampshire General Permit (NPDES Permit No. NHG580000) for discharges in the State of New Hampshire, may discharge to all waters of the State of New Hampshire, except as provided in Part I.C. of this permit, unless otherwise restricted by New Hampshire Title L, Water Management and Protection, Chapter 485-A:8 and the New Hampshire Code of Administrative Rules, Env-Wq 1700-1709 (or as revised).

### C. Limitations on Coverage

The following dischargers are ineligible for coverage under this general permit:

- 1. Any facility that is not defined as a POTW or a treatment works treating domestic sewage, as defined at 40 CFR § 403.3 and 40 CFR § 122.2, respectively;
- 2. Any facility with design flow greater than 1 MGD;
- 3. Any facility in Massachusetts that is categorized as a major facility;
- 4. Any facility that does not provide, at a minimum, secondary treatment to the discharge;
- 5. Any facility with one or more designated Combined Sewer Overflow (CSO) outfalls;
- 6. Discharges to the territorial sea, as defined at Clean Water Act (CWA) Section 502; N/A
- 7. Discharges to Special Resource Waters in Massachusetts as defined in the Massachusetts surface water quality standards at 314 CMR § 4.06(3) and (4), including Public Water Supplies (314 CMR § 4.06(1)(d)(1)), which have been designated by the state as Class A waters, unless a variance is granted by the MassDEP, under 314 CMR § 4.04(3)(b);
- 8. Discharges to an Area of Critical Environmental Concern (ACEC) in Massachusetts;
- 9. Discharges inconsistent with the Massachusetts Ocean Sanctuaries Act, in accordance with 301 CMR 27.00; <del>Discharges to Massachusetts Ocean Sanctuaries, as defined at 302 CMR 5.00;</del>
- 10. Discharges to Outstanding Resource Waters in Massachusetts as described in the Massachusetts surface water quality standards at 314 CMR § 4.04(3) or in New Hampshire as defined in the New Hampshire water quality regulations at Env-Wq 1708.04(a), unless allowed by the NHDES under Env-Wq 1708.04(b) and (c);

- 11. Discharges to Class A waters in New Hampshire, in accordance with the New Hampshire water quality regulations at Env-Wq 1708.05 and RSA 485-A:8, I;
- 12. Any new or increased discharge which is inconsistent with the antidegradation policy of the State in which the discharge occurs;
- 13. Discharges which are inconsistent with the State Coastal Zone Management Program;
- Discharges which may adversely affect properties listed or eligible for listing in the National Registry of Historic Places under the National Historic Preservation Act of 1966, 16 U.S.C. Sections 470 et seq., as amended;
- 15. Discharges which may adversely affect threatened or endangered species, or critical habitats of such species, under the Endangered Species Act (ESA); and
- 16. Any "New Source" as defined in 40 CFR § 122.2.

### II. Massachusetts General Permit, Permit No. MAG580000

In compliance with the provisions of the Federal Clean Water Act, as amended, (33 U.S.C. §§ 1251 <u>et seq</u>.; the "CWA"), owners and operators of WWTFs located in Massachusetts are authorized to discharge to all waters, unless otherwise restricted, in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This General Permit Modification shall become effective on the first day of the calendar month immediately following 60 days after signature.

This General Permit Modification revises and supersedes the 2021 Small WWTF General Permit issued on September 28, 2021, and shall expire at midnight, on November 30, 2026.



Ken Moraff, Director Water Division Environmental Protection Agency Region 1 Boston, MA

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#### A. Effluent Limitations and Monitoring Requirements for Massachusetts Facilities

During the period beginning on the effective date and lasting through the expiration date, the Permittee is authorized to discharge treated effluent from a wastewater treatment facility (WWTF) treating domestic sewage. The discharge shall be limited and monitored as specified below at the end of all treatment processes, including disinfection or dechlorination, or at an alternative representative location approved by EPA and the Massachusetts Department of Environmental Protection (MassDEP), that provides a representative sample of the effluent. The receiving water and the influent shall be monitored as specified below.

#### Table 1. Effluent Limitations and Monitoring Requirements for Facilities in Massachusetts

| Effluent Characteristic                                       | Discharge Limitation <sup>13</sup>        |                                      |                     | Monitoring Requirement <sup>1,2</sup> |                             |
|---|---|--------------------------------------|---------------------|---------------------------------------|-----------------------------|
| Parameter   | Average<br>Monthly                        | Average<br>Weekly                    | Maximum Daily       | Measuremen<br>t Frequency             | Sample<br>Type <sup>3</sup> |
| Effluent Flow <sup>4</sup>                                    | Rolling<br>Annual<br>Average<br>Limit MGD |                                      |                     | Continuous                            | Recorder                    |
| Effluent Flow <sup>4</sup>                                    | Report MGD                                |                                      | Report MGD          | Continuous                            | Recorder                    |
| BOD <sub>5</sub>  | 30 mg/L<br>Limit <sup>5</sup> lb/day      | 45 mg/L<br>Limit <sup>5</sup> lb/day | Report mg/L         | 1/Week                                | Composite                   |
| CBOD <sub>5</sub> <sup>6</sup>                                | 25 mg/L<br>Limit <sup>5</sup> lb/day      | 40 mg/L<br>Limit <sup>5</sup> lb/day | Report mg/L         | 1/Week                                | Composite                   |
| BOD <sub>5</sub> (or CBOD <sub>5</sub> <sup>6</sup> ) Removal | ≥85 %                                     |                                      |                     | 1/Month                               | Calculate                   |
| TSS   | 30 mg/L<br>Limit <sup>5</sup> lb/day      | 45 mg/L<br>Limit <sup>5</sup> lb/day | Report mg/L         | 1/Week                                | Composite                   |
| TSS Removal   | ≥85 %                                     |                                      |                     | 1/Month                               | Calculate                   |
| pH Range <sup>7</sup>   |   | Limit Range                          | S.U.                | 5/Week                                | Grab                        |
| <i>Escherichia coli</i> <sup>8</sup><br>Class B waters        | 126 colonies/<br>100 mL                   |                                      | 409 colonies/100 mL | 1/Week                                | Grab                        |
| Enterococci <sup>8</sup><br>Class SA or SB                    | 35 colonies/<br>100 mL                    |                                      | 104 colonies/100 mL | 1/Week                                | Grab                        |

| Effluent Characteristic                            | Discharge Lim | itation <sup>13</sup> | Monitoring Requirement <sup>1,2</sup> |                      |                   |
|--|---------------|-----------------------|---------------------------------------|----------------------|-------------------|
| Parameter  | Average       | Average               | Maximum Daily                         | Measuremen           | Sample            |
|  | Monthly       | Weekly                |                                       | t Frequency          | Type <sup>3</sup> |
| Fecal Coliform Bacteria <sup>8</sup>               | 14 organisms/ |                       | 28 organisms/100 mI                   | 1/Week               | Grab              |
| Class SA, Shellfishing Waters                      | 100 mL        |                       | 28 organisms/100 mL                   |                      |                   |
| Fecal Coliform Bacteria <sup>8</sup>               | 88 organisms/ |                       | 260 organisms/100                     | 1/Week               | Grab              |
| Class SB, Shellfishing Waters                      | 100 mL        |                       | mL                                    |                      |                   |
| Total Residual Chlorine <sup>9</sup>               | Limit mg/L    |                       | Limit mg/L                            | 5/Week               | Grab              |
| Total Recoverable Metals <sup>10</sup>             | Limit mg/L    |                       | Limit mg/L                            | 2/Month              | Composite         |
| Total Phosphorus <sup>10</sup>                     | Limit ma/L    |                       |                                       | 2/Month              | Composite         |
| Class B waters only                                |               |                       |                                       |                      |                   |
| Ammonia Nitrogen <sup>10</sup>                     | Limit mg/L    |                       | Limit mg/L                            | 2/Month              | Composite         |
| (specify season)                                   |               |                       |                                       |                      |                   |
| Total Nitrogen <sup>11</sup>                       | Report mg/L   |                       |                                       | Varies <sup>11</sup> | Composite         |
|  | Report lb/day |                       |                                       |                      |                   |
| Total Kjeldahl Nitrogen <sup>11</sup>              | Report mg/L   |                       |                                       | Varies <sup>11</sup> | Composite         |
| Nitrate + Nitrite <sup>11</sup>                    | Report mg/L   |                       |                                       | Varies <sup>11</sup> | Composite         |
| Perfluorohexanesulfonic acid (PFHxS) <sup>12</sup> |               |                       | Report ng/L                           | 2/Year <sup>12</sup> | Composite         |
| Perfluoroheptanoic acid (PFHpA) <sup>12</sup>      |               |                       | Report ng/L                           | 2/Year <sup>12</sup> | Composite         |
| Perfluorononanoic acid (PFNA) <sup>12</sup>        |               |                       | Report ng/L                           | 2/Year <sup>12</sup> | Composite         |
| Perfluorooctanesulfonic acid (PFOS) <sup>12</sup>  |               |                       | Report ng/L                           | 2/Year <sup>12</sup> | Composite         |
| Perfluorooctanoic acid (PFOA) <sup>12</sup>        |               |                       | Report ng/L                           | 2/Year <sup>12</sup> | Composite         |
| Perfluorodecanoic acid (PFDA) <sup>12</sup>        |               |                       | Report ng/L                           | 2/Year <sup>12</sup> | Composite         |
| Other <sup>10,13</sup>                             | Limit         |                       | Limit                                 | Varies               | Composite         |
| Whole Effluent Toxicity (WET) Testing              | 14,15         |                       |                                       |                      |                   |
|  |               |                       | Chronic (C-NOEC)≥                     |                      |                   |
| Dilution Easter (DE) $> 1$ and $< 20$              |               |                       | 100% / DF                             | 1/Vaar               | Composito         |
| Dilution Factor $(DF) \ge 1$ and $< 20$            |               |                       | and                                   | 4/ I Cal             | Composite         |
|  |               |                       | Acute $(LC_{50}) \ge 100\%$           |                      |                   |
| Dilution Factor $> 20$ and $< 50$                  |               |                       | Acute $(LC_{50}) \ge 100\%$           | 4/Year               | Composite         |

| Effluent CharacteristicDischarge Limitation13 |                    |                   | Monitoring R                         | equirement <sup>1,2</sup> |                             |
|---|--------------------|-------------------|--------------------------------------|---------------------------|-----------------------------|
| Parameter                                     | Average<br>Monthly | Average<br>Weekly | Maximum Daily                        | Measuremen<br>t Frequency | Sample<br>Type <sup>3</sup> |
| Dilution Factor $\geq 50$ and $< 100$         |                    |                   | Acute (LC <sub>50</sub> ) $\ge$ 100% | 2/Year                    | Composite                   |
| Dilution Factor $\geq 100$ and $< 1,000$      |                    |                   | Acute (LC <sub>50</sub> ) $\geq$ 50% | 1/Year                    | Composite                   |
| Dilution Factor $\geq$ 1,000                  |                    |                   |                                      | None                      |                             |
| Hardness (as CaCo <sub>3</sub> )              |                    |                   | Report mg/L                          |                           |                             |
| Ammonia Nitrogen                              |                    |                   | Report mg/L                          |                           |                             |
| Total Aluminum                                |                    |                   | Report mg/L                          |                           |                             |
| Class B waters only                           |                    |                   |                                      |                           |                             |
| Total Cadmium                                 |                    |                   | Report mg/L                          | Same as WET               | Measurement                 |
| Total Copper                                  |                    |                   | Report mg/L                          | Frequency and             | l Sample Type               |
| Total Lead                                    |                    |                   | Report mg/L                          |                           | 1 11                        |
| Total Nickel                                  |                    |                   | Report mg/L                          |                           |                             |
| Total Zinc                                    |                    |                   | Report mg/L                          |                           |                             |
| Total Organic Carbon                          |                    |                   | Report mg/L                          |                           |                             |
| Total Phosphorus <sup>19</sup>                |                    |                   | Report mg/L                          | See Footnote              | Composite                   |
| Class B waters only                           |                    |                   |                                      | 19                        | -                           |

|  | Reporting Requirements |                | Monitoring Requirements <sup>1,2,3</sup> |                          |                 |
|--|------------------------|----------------|--|--------------------------|-----------------|
| Ambient Characteristic <sup>16</sup>   | Average<br>Monthly     | Average Weekly | Maximum Daily                            | Measurement<br>Frequency | Sample<br>Type⁴ |
| Hardness - Class B waters only         |                        |                | Report mg/L                              |                          | Grab            |
| Salinity<br>Class SA or SB waters only |                        |                | Report ppt                               |                          | Grab            |
| Ammonia Nitrogen                       |                        |                | Report mg/L                              |                          | Grab            |
| Total Aluminum<br>Class B waters only  |                        |                | Report mg/L                              | Same as WET              | Grab            |
| Total Cadmium                          |                        |                | Report mg/L                              | Monitoring               | Grab            |
| Total Copper                           |                        |                | Report mg/L                              | Frequency                | Grab            |
| Total Nickel                           |                        |                | Report mg/L                              |                          | Grab            |

|   | Reporting Requirements |                | Monitoring Requirements <sup>1,2,3</sup> |                          |                             |
|---|------------------------|----------------|--|--------------------------|-----------------------------|
| Ambient Characteristic <sup>16</sup>                          | Average<br>Monthly     | Average Weekly | Maximum Daily                            | Measurement<br>Frequency | Sample<br>Type <sup>4</sup> |
| Total Lead  |                        |                | Report mg/L                              |                          | Grab                        |
| Total Zinc  |                        |                | Report mg/L                              |                          | Grab                        |
| Total Organic Carbon  |                        |                | Report mg/L                              |                          | Grab                        |
| Dissolved Organic Carbon <sup>17</sup><br>Class B waters only |                        |                | Report mg/L                              |                          | Grab                        |
| pH <sup>18</sup>  |                        |                | Report S.U.                              |                          | Grab                        |
| Temperature <sup>18</sup>                                     |                        |                | Report °C                                |                          | Grab                        |
| Total Phosphorus <sup>19</sup><br>Class B waters only         |                        |                | Report mg/L                              | See Footnote<br>19       | Grab                        |

|   | Reporting Requirements |                   |               | Monitoring Requirements <sup>1,2,3</sup> |                          |  |
|---|------------------------|-------------------|---------------|--|--------------------------|--|
| Influent Characteristic                               | Average<br>Monthly     | Average<br>Weekly | Maximum Daily | Measurement<br>Frequency                 | Sample Type <sup>4</sup> |  |
| BOD <sub>5</sub> (or CBOD <sub>5</sub> <sup>6</sup> ) | Report mg/L            |                   |               | 2/Month                                  | Composite                |  |
| TSS   | Report mg/L            |                   |               | 2/Month                                  | Composite                |  |
| Perfluorohexanesulfonic acid (PFHxS) <sup>12</sup>    |                        |                   | Report ng/L   | $2/Year^{12}$                            | Composite                |  |
| Perfluoroheptanoic acid (PFHpA) <sup>12</sup>         |                        |                   | Report ng/L   | $2/Year^{12}$                            | Composite                |  |
| Perfluorononanoic acid (PFNA) <sup>12</sup>           |                        |                   | Report ng/L   | $2/Year^{12}$                            | Composite                |  |
| Perfluorooctanesulfonic acid (PFOS) <sup>12</sup>     |                        |                   | Report ng/L   | $2/Year^{12}$                            | Composite                |  |
| Perfluorooctanoic acid (PFOA) <sup>12</sup>           |                        |                   | Report ng/L   | $2/Year^{12}$                            | Composite                |  |
| Perfluorodecanoic acid (PFDA) <sup>12</sup>           |                        |                   | Report ng/L   | $2/Year^{12}$                            | Composite                |  |

|  | Reporting Requirements |                   |                  | Monitoring Requirements <sup>1,2,3</sup> |                              |
|--|------------------------|-------------------|------------------|--|------------------------------|
| Sludge Characteristic                              | Average<br>Monthly     | Average<br>Weekly | Maximum<br>Daily | Measurement<br>Frequency                 | Sample Type <sup>4</sup>     |
| Perfluorohexanesulfonic acid (PFHxS) <sup>20</sup> |                        |                   | Report ng/g      | Varies <sup>20</sup>                     | Grab/Composite <sup>21</sup> |
| Perfluoroheptanoic acid (PFHpA) <sup>20</sup>      |                        |                   | Report ng/g      | Varies <sup>20</sup>                     | Grab/Composite <sup>21</sup> |
| Perfluorononanoic acid (PFNA) <sup>20</sup>        |                        |                   | Report ng/g      | Varies <sup>20</sup>                     | Grab/Composite <sup>21</sup> |
| Perfluorooctanesulfonic acid (PFOS) <sup>20</sup>  |                        |                   | Report ng/g      | Varies <sup>20</sup>                     | Grab/Composite <sup>21</sup> |
| Perfluorooctanoic acid (PFOA) <sup>20</sup>        |                        |                   | Report ng/g      | Varies <sup>20</sup>                     | Grab/Composite <sup>21</sup> |
| Perfluorodecanoic acid (PFDA) <sup>20</sup>        |                        |                   | Report ng/g      | Varies <sup>20</sup>                     | Grab/Composite <sup>21</sup> |

Footnotes to Part II.A. Table 1:

- 1. All samples shall be collected in a manner to yield representative data. A routine sampling program shall be developed in which samples are taken at the same location, same time, and same days of the week each month. Occasional deviations from the routine sampling program are allowed, but the reason for the deviation shall be documented as an electronic attachment to the applicable discharge monitoring report. The Permittee shall report the results to the Environmental Protection Agency Region 1 (EPA) and the State of any additional testing above that required herein, if testing is in accordance with 40 CFR Part 136.
- 2. In accordance with 40 CFR § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is "sufficiently sensitive" when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter. The term "minimum level" refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor.

When a parameter is not detected above the ML, the Permittee must report the data qualifier signifying less than the ML for that parameter (e.g.,  $< 50 \ \mu g/L$ , if the ML for a parameter is 50  $\mu g/L$ ). For reporting an average based on a mix of values detected and not detected, assign a value of "0" to all non-detects for that reporting period and report the average of all the results.

3. A "grab" sample is an individual sample collected in a period of less than 15 minutes.

A "composite" sample is a composite of at least twenty-four (24) grab samples taken during one consecutive 24-hour period, either collected at equal intervals and combined proportional to flow or continuously collected proportional to flow.

All references to "composite" will be changed to "grab" in the authorization to discharge for any facilities utilizing sand filters or lagoons.

4. The limit is a rolling annual average, reported in million gallons per day (MGD), which will be calculated as the arithmetic mean of the monthly average flow for the reporting month and the monthly average flows of the previous eleven months. Also report monthly average and maximum daily flow in MGD.

5. The average monthly and average weekly BOD<sub>5</sub> (or CBOD<sub>5</sub>) and TSS mass limitations are specific to each discharge, and are calculated using the following equation:

Mass limitation (lb/day) = concentration limit (mg/L) \* facility's design flow (MGD) \* 8.34

- 6. The CBOD<sub>5</sub> limitations apply in lieu of BOD<sub>5</sub> limitations if already included in a facility's existing permit.
- 7. The pH shall be within the specified range at all times. The minimum and maximum pH sample measurement values for the month shall be reported in standard units (S.U.). Discharges to Class B waters shall be within 6.5 to 8.3 S.U. at all times. Discharges to Class SA or SB waters shall be within 6.5 to 8.5 S.U. at all times.

Charlemont and Shelburne Falls shall be within 6.0 to 8.3 S.U. at all times. If these WWTFs wish to continue this lower pH range for future permit cycles, they must conduct a pH study and submit the results of said study to MassDEP at <u>massdep.npdes@mass.gov</u> within three years of the effective date of this permit. For guidance on the study, the Permittee shall contact MassDEP at <u>massdep.npdes@mass.gov</u>.

8. The monthly average limits for bacteria (including *E. coli*, fecal coliform, and enterococci) are expressed as a geometric mean. *E. coli* requirements apply only to discharges to freshwater (Class B). Enterococci requirements apply only to discharges to marine waters (Class SA or SB). Fecal Coliform requirements apply only to discharges to marine waters (Class SA or SB) used for shellfishing (*i.e.*, only USCG Boston Light, Shorecliff Maintenance Trust, Cohasset, and Manchester-by-the-Sea). Bacteria monitoring shall be conducted concurrently with TRC monitoring, if TRC monitoring is required.

For samples tested using the Most Probable Number (MPN) method, the units may be expressed as MPN. The units may also be expressed as colony forming units (cfu) when using the Membrane Filtration method.

*E. coli* and Enterococci limits apply during the season indicated in Attachment E for each eligible facility. Fecal Coliform limits apply year-round.

# The daily maximum *Enterococci* limit for Rockport is 130 cfu/100 ml.

- 9. For total residual chlorine (TRC) limitations and other related requirements, see Part II.B.9 of this permit.
- 10. Limitations, if necessary, for ammonia nitrogen (seasonal in warm and/or cold weather), total phosphorus (seasonal during the growing season only; freshwater only), and/or total metals (year-round) will be established for each Permittee as calculated using the methodology provided as Appendix A of the Fact Sheet and as summarized in Attachment E.

See Part IV.E below for compliance schedules applicable to some of these limits.

11. Total Kjeldahl nitrogen and nitrate + nitrite samples shall be collected concurrently. The results of these analyses shall be used to calculate both the concentration and mass loadings of total nitrogen, as follows.

Total Nitrogen (mg/L) = Total Kjeldahl Nitrogen (mg/L) + Nitrate + Nitrite (mg/L)

Total Nitrogen (lbs/day) = [(average monthly Total Nitrogen (mg/L) \* total monthly effluent flow (Millions of Gallons (MG)) / # of days in the month] \* 8.34

Monitoring shall be conducted at the following frequency:

- All lagoon facilities; quarterly monitoring
- Non-lagoon facilities with design flow < 100,000 gpd: quarterly monitoring
- Non-lagoon facilities with design flow  $\geq$  100,000 gpd: monthly monitoring

For facilities in the Long Island Sound watershed, see additional requirements at Part IV.F of this permit. Facilities in the Long Island Sound watershed are identified in Appendix B of the Fact Sheet.

12. Report in nanograms per liter (ng/L). Monitoring and reporting shall be done twice per year, once in each 3<sup>rd</sup> calendar quarter and once in each 4<sup>th</sup> calendar quarter. This reporting requirement for the listed PFAS parameters takes effect the first full 3<sup>rd</sup> or 4<sup>th</sup> calendar quarter following 6 months after EPA notifies the permittee that an EPA multi-lab validated method for wastewater is available.

This PFAS monitoring and reporting is not required for marine dischargers with a design flow less than 0.1 MGD (*i.e.*, USCG Boston Light and Shore Cliff – Deaconess Retirement Home).

- 13. Any existing limits in a facility's current NPDES permit that are more stringent than the limitations presented in this table will be included in that facility's authorization to discharge under the General Permit.
- 14. The Permittee shall conduct acute toxicity tests (LC50) and, for discharges with a dilution factor below 20, chronic toxicity tests (C-NOEC) in accordance with test procedures and protocols specified in Attachments A and B (for freshwater discharges) or Attachments C and D (for marine discharges) of this permit. LC50 and C-NOEC are defined in Part VIII.E. of this permit. The Permittee shall test the daphnid (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*) if discharging to freshwater (Class B) or the mysid shrimp (*Mysidopsia bahia*) and the inland silverside (*Menidia beryllina*) if discharging to marine waters (Class SA or SB). However, for Permittees that are currently authorized for a reduction in frequency or test species, or both, this reduction will be carried forward in the authorization to discharge under this General Permit. For facilities required to test four times per year, toxicity test samples shall be collected during the same weeks each time of calendar quarters ending March 31st, June 30th, September 30th, and December 31st. For facilities

required to test twice per year, toxicity test samples shall be collected during the same weeks each time of calendar quarters ending June 30<sup>th</sup> and September 30th. For facilities required to test once per year, toxicity test samples shall be collected during the same weeks each time of calendar quarter ending September 30th. The complete report for each toxicity test shall be submitted as an attachment to the DMR submittal which includes the results for that toxicity test.

- 15. For Part I.A.1., Whole Effluent Toxicity Testing, the Permittee shall conduct the analyses specified in Attachments A and B (for freshwater discharges) or Attachments C and D (for marine discharges), Part VI. CHEMICAL ANALYSIS for the effluent sample. If toxicity test(s) using the receiving water as diluent show the receiving water to be toxic or unreliable, the Permittee shall follow procedures outlined in Attachments A and B (for freshwater discharges) or Attachments C and D (for marine discharges), Section IV., DILUTION WATER. Minimum levels and test methods are specified in Attachment A and B (for freshwater discharges) or Attachments C and D (for marine discharges), Part VI. CHEMICAL ANALYSIS.
- 16. For Part I.A.1., Ambient Characteristic, the Permittee shall conduct the analyses specified in Attachments A and B (for freshwater discharges) or Attachments C and D (for marine discharges), Part VI. CHEMICAL ANALYSIS for the receiving water sample collected as part of the WET testing requirements. Such samples shall be taken from the receiving water at a point immediately upstream (for freshwater discharges) or outside (for marine discharges) of the permitted discharge's zone of influence at a reasonably accessible location, as specified in Attachments A and B (for freshwater discharges) or Attachments C and D (for marine discharges). Minimum levels and test methods are specified in Attachment A and B (for freshwater discharges) or Attachments C and D (for marine discharges). Part VI. CHEMICAL ANALYSIS.
- 17. Monitoring and reporting for dissolved organic carbon (DOC) are not requirements of the Whole Effluent Toxicity (WET) tests but are additional requirements. The Permittee may analyze the WET samples for DOC or may collect separate samples for DOC concurrently with WET sampling.
- 18. A pH and temperature measurement shall be taken of each receiving water sample at the time of collection and the results reported on the appropriate DMR. These pH and temperature measurements are independent from any pH and temperature measurements required by the WET testing protocols.
- 19. For Permittees discharging to freshwater with a dilution factor below 20, total phosphorus effluent monitoring shall be conducted concurrently with any whole effluent toxicity testing between April 1<sup>st</sup> and October 31<sup>st</sup> (*i.e.*, 2<sup>nd</sup> and 3<sup>rd</sup> calendar quarter). Additionally, such Permittees shall develop and implement a sampling and analysis plan for biannually collecting monthly samples at a location upstream of the facility. Samples shall be collected once per month, from May through September, every other calendar year starting on the calendar year following the date of permit issuance. The Permittee may enter "NODI" code 9

(*i.e.*, conditional monitoring) in the relevant discharge monitoring report during years when monitoring is not required. Sampling shall be conducted on any calendar day that is preceded by at least 72 hours without rainfall, following the last rainfall of 0.1 inches of rainfall or greater. A sampling plan shall be submitted to EPA and the State at least three months prior to the first planned sampling date as part of a Quality Assurance Project Plan for review and State approval.

20. Report in nanograms per gram (ng/g).

Monitoring and reporting for PFAS in the sludge of non-lagoon facilities shall be done twice per year, once in each 3<sup>rd</sup> calendar quarter and once in each 4<sup>th</sup> calendar quarter. This reporting requirement for the listed PFAS parameters takes effect the first full 3<sup>rd</sup> or 4<sup>th</sup> calendar quarter following 6 months after EPA notifies the Permittee that an EPA multi-lab validated method for sludge is available.

Monitoring and reporting for PFAS in the sludge of lagoon facilities shall be done once per permit term, in the first full 3<sup>rd</sup> calendar quarter following 6 months after EPA notifies the Permittee that an EPA multi-lab validated method for sludge is available.

This PFAS monitoring and reporting is not required for marine dischargers with a design flow less than 0.1 MGD (*i.e.*, USCG Boston Light and Shore Cliff – Deaconess Retirement Home).

21. Sludge sampling shall be as representative as possible based on guidance found at <u>https://www.epa.gov/sites/production/files/2018-11/documents/potw-sludge-sampling-guidance-document.pdf</u>.

# B. Other Requirements for Massachusetts Facilities

- 1. The discharge shall not cause a violation of the water quality standards of the receiving water.
- 2. The discharge shall be free from pollutants in concentrations or combinations that, in the receiving water, settle to form objectionable deposits; float as debris, scum or other matter to form nuisances; produce objectionable odor, color, taste or turbidity; or produce undesirable or nuisance species of aquatic life.
- 3. The discharge shall be free from pollutants in concentrations or combinations that adversely affect the physical, chemical, or biological nature of the bottom.
- 4. The discharge shall not result in pollutants in concentrations or combinations in the receiving water that are toxic to humans, aquatic life or wildlife.
- 5. The discharge shall be free from floating, suspended and settleable solids in concentrations or combinations that would impair any use assigned to the receiving water.
- 6. If receiving water is Class SA, the discharge shall be free from oil and grease and petrochemicals. If the receiving water is Class B or SB, the discharge shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the water or an oily or other undesirable taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or are deleterious or become toxic to aquatic life.
- 7. The Permittee must provide adequate notice to EPA-Region 1 and the State of the following:
  - Any new introduction of pollutants into the facility from an indirect discharger which would be subject to Part 301 or Part 306 of the Clean Water Act if it were directly discharging those pollutants or in a primary industry category (see 40 CFR Part 122 Appendix A as amended) discharging process water; and
  - Any substantial change in the volume or character of pollutants being introduced into that facility by a source introducing pollutants into the facility at the time of issuance of the permit.
  - For purposes of this paragraph, adequate notice shall include information on:
    - (1) The quantity and quality of effluent introduced into the facility; and
    - (2) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the facility.
- 8. Pollutants introduced into the facility by a non-domestic source (user) shall not pass through the POTW or facility or interfere with the operation or performance of the works.
- 9. Total Residual Chlorine (TRC) limitations and related requirements are specified below:

• TRC limitations only apply to discharges which have been previously chlorinated or which contain residual chlorine. If bacteria limits do not apply during a particular monitoring period and, therefore, chlorine is not utilized, TRC monitoring is not necessary and the Permittee may enter "NODI" code 9 (*i.e.*, conditional monitoring) in the relevant discharge monitoring report. The maximum daily and average monthly concentrations of TRC allowed in the effluent are based on the appropriate water-quality criterion, which are listed below:

Freshwater acute (Class B) =  $19 \mu g/l$  (0.019 mg/1); use for daily maximum

Freshwater chronic (Class B) =  $11 \mu g/l$  (0.011 mg/1); use for average monthly

Marine acute (Class SA or SB) =  $13 \mu g/l$  (0.013 mg/1); use for daily maximum

Marine chronic (Class SA or SB) =  $7.5 \mu g/l$  (0.0075 mg/1); use for average monthly

Daily maximum and average monthly effluent limits are calculated using the appropriate water quality criteria (listed above) and the dilution factor (See Attachment E) according to the following equation:

Effluent Limit = (Dilution Factor) x (Water Quality Criteria)

If the appropriate water quality-based TRC limits are greater than 1.0 mg/1, a daily maximum limit of 1.0 mg/L shall be applied to the discharge.

See Attachment E for a summary of any limits that become more stringent than a facility's existing TRC limits based on the calculations above.

- The Permittee shall minimize the use of chlorine while maintaining adequate bacterial control. Monitoring for total residual chlorine (TRC) is only required for discharges which have been previously chlorinated or which contain residual chlorine. For any permit limits below 20  $\mu$ g/L, the compliance level for TRC is 20  $\mu$ g/L.
- Chlorination and dechlorination systems shall include an alarm system for indicating system interruptions or malfunctions. Any interruption or malfunction of the chlorine dosing system that may have resulted in levels of chlorine that were inadequate for achieving effective disinfection, or interruptions or malfunctions of the dechlorination system that may have resulted in excessive levels of chlorine in the final effluent shall be reported with the monthly DMRs. The report shall include the date and time of the interruption or malfunction, the nature of the problem, and the estimated amount of time that the reduced levels of chlorine or dechlorination chemicals occurred.
- Permittees authorized to conduct disinfection using an alternative to chlorine as the disinfectant are subject to the TRC limitations and monitoring requirements whenever chlorine is added to the treatment process for disinfection or for other purpose. For the

months in which chlorine is not added to the treatment process, the Permittee shall indicate "no discharge" on DMRs using the "NODI" code C.

- Facilities shall disinfect year-round unless authorized to disinfect seasonally. Permittees seeking General Permit coverage for discharges into Class B waters may request authorization to conduct disinfection of the discharge on a seasonal basis. If approved, upon receipt of written authorization from EPA and MassDEP to conduct seasonal disinfection, TRC limitations, monitoring, and reporting requirements apply only during the specified disinfection period and whenever chlorine is added to the treatment process outside of the specified disinfection period.
- 10. The Leicester Water Supply District shall install a gauge by the first July following 60 days of their authorization date under this General Permit. The gauge shall be located immediately upstream from the facility's discharge location and immediately downstream of Dutton Pond on Town Meadow Brook. Leicester shall monitor the instream flow of the receiving water at a frequency of at least three (3) days per week (*e.g.*, Monday, Wednesday, and Friday) from July through November of each year. Occasional deviations are allowable based on holidays, staff availability or emergencies. Sampling is not required when inclement weather precludes safe instream flow monitoring. All data shall be submitted annually by January 15 for the previous calendar year in spreadsheet format as an electronic attachment to each December's Discharge Monitoring Report (DMR).

# C. Unauthorized Discharges

- 1. This permit authorizes discharges only from the outfall(s) listed in the authorization to discharge from EPA in accordance with the terms and conditions of this permit. Discharges of wastewater from any other point sources, including sanitary sewer overflows (SSOs), are not authorized by this permit in accordance with Part VIII.D.1.e.(1) (24-hour reporting). See Part VI below for reporting requirements.
- 2. The Permittee must provide notification to the public within 24 hours of becoming aware of any unauthorized discharge, except SSOs that do not impact a surface water or the public, on a publicly available website, and it shall remain on the website for a minimum of 12 months. Such notification shall include the location and description of the discharge; estimated volume; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue.
- Notification of SSOs to MassDEP shall be made on its SSO Reporting Form (which includes MassDEP Regional Office telephone numbers). The reporting form and instruction for its completion may be found on-line at <u>https://www.mass.gov/how-to/sanitary-sewer-overflowbypassbackup-notification</u>.

### **D.** Notification Requirements

The Permittee shall notify all downstream community water systems (if any) of any emergency

condition, plant upset, bypass, or other system failure which has the potential to impact the quality of the water to be withdrawn by that community for drinking water purposes. This notification should be made as soon as possible but within four (4) hours, and in the anticipation of such an event, if feasible, without taking away from any response time necessary to alleviate the situation. The Permittee shall follow up with written notification within five (5) days. This notification shall include the reason for the emergency, any sampling information, any visual data recorded, a description of how the situation was handled, and when it would be considered to no longer be an emergency.

# E. Additional Requirements for Facilities Discharging to Marine Waters

The requirements below apply to facilities that discharge to marine waters.

- 1. For facilities with effluent diffusers, the Permittee shall operate the effluent diffuser according to the best management practices below:
  - The effluent diffuser shall be maintained to ensure proper operation. Proper operation means that the outfall pipe be intact, operating as designed, and have unobstructed flow. Maintenance may include dredging in the vicinity of the diffuser, removal of solids/debris in the diffuser header pipe, and repair/replacement.
  - To determine if maintenance will be required, the Permittee shall inspect and videotape the operation of the diffuser either remotely or using a qualified diver or marine contractor. The inspections and videotaping shall be performed every five years with the first inspection occurring within twelve (12) months of the effective date of the permit. EPA and MassDEP shall be contacted at least seven days prior to a dive inspection.
  - Any necessary maintenance dredging must be performed only during the marine construction season authorized by the Massachusetts Department of Marine Fisheries and only after receiving all necessary permits from the Massachusetts Department of Environmental Protection, U.S. Coast Guard, U.S. Army Corps of Engineers, and other appropriate agencies.
  - Copies of reports summarizing the results of each diffuser inspection shall be submitted to EPA and MassDEP within 60 days of each inspection. Where it is determined that maintenance will be necessary, the Permittee shall provide the proposed schedule for the maintenance. The Permittee may request an extension of up to 60 additional days to submit this report.
- 2. The Permittee shall verbally notify the Massachusetts Division of Marine Fisheries within 4 hours of any emergency condition, plant upset, bypass, SSO discharges or other system failure which has the potential to violate bacteria permit limits. Within 24 hours a notification of a permit excursion or plant failure shall be sent to the following address:

Division of Marine Fisheries Shellfish Management Program 30 Emerson Avenue Gloucester, MA 01930 (978) 282-0308

3. Pursuant to 40 CFR § 125.123(d)(4), this permit shall be modified or revoked at any time if, on the basis of any new data, the director determines that continued discharges may cause unreasonable degradation of the marine environment.

## F. State 401 Certification Conditions

This Permit has received state water quality certification issued by the State under § 401(a) of the CWA and 40 CFR § 124.53. EPA incorporates the following state water quality certification requirements into the Final Permit:

1. Pursuant to 314 CMR 3.11 (2)(a)6., and in accordance with MassDEP's obligation under 314 CMR 4.05(5)(e) to maintain surface waters free from pollutants in concentrations or combinations that are toxic to humans, aquatic life, or wildlife, beginning the first full third (July through September) or fourth (October through December) calendar quarter after the permittee has been notified by EPA of a multi-lab validated method for wastewater, or by the dates set forth in Appendix A of the draft Massachusetts Small Wastewater Treatment Facilities General Permit Modification, whichever is earlier, the permittee shall conduct monitoring of the influent, effluent, and sludge for PFAS compounds as detailed in the tables below. If EPA's multi-lab validated method is not available by four (4) months prior to the dates set for each in Appendix A of the draft Massachusetts Small Wastewater Treatment Facilities General Permit Modification, the permittee shall contact MassDEP (massdep.npdes@mass.gov) for guidance on an appropriate analytical method. Influent, effluent, and sludge samples shall be sampled twice yearly in the third and fourth quarters, with the exception of facilities that dispose of sludge in onsite lagoons. Facilities that dispose of sludge in onsite lagoons shall conduct a one time characterization of the PFAS content in the sludge during the first full third quarter following notification from EPA that a multi-lab validated method is available. Notwithstanding any other provision of the 2023 Federal NPDES Permit Modification to the contrary, monitoring results shall be reported to MassDEP electronically, at massdep.npdes@mass.gov, or as otherwise specified, within 30 days after they are received. If the permittee is located upstream of the drinking water intake of one or more communities, the permittee shall commence this monitoring beginning in the first full third or fourth quarter following 180 days after the effective date of the permittee's authorization and shall contact MassDEP (massdep.npdes@mass.gov) 90 days prior to starting monitoring for guidance on the appropriate analytical method: Battle Road Farm; Wayland WWMD; MCI Concord; Middlesex School; MCI-Bridgewater and Oak Point Homes. The following small wastewater treatment facility permittees with design flow less than 0.1 MGD that discharge to marine waters are exempt from all PFAS monitoring requirements: Shore Cliff Maintenance Trust and United States Coast Guard Light Station Boston.

#### Influent and Effluent

| Parameter                            | Units | Measurement                 | Sample Type       |
|--------------------------------------|-------|-----------------------------|-------------------|
|                                      |       | Frequency                   |                   |
| Perfluorohexanesulfonic acid (PFHxS) | ng/L  | Twice Annually <sup>1</sup> | 24-hour Composite |
| Perfluoroheptanoic acid (PFHpA)      | ng/L  | Twice Annually              | 24-hour Composite |
| Perfluorononanoic acid (PFNA)        | ng/L  | Twice Annually              | 24-hour Composite |
| Perfluorooctanesulfonic acid (PFOS)  | ng/L  | Twice Annually              | 24-hour Composite |
| Perfluorooctanoic acid (PFOA)        | ng/L  | Twice Annually              | 24-hour Composite |
| Perfluorodecanoic acid (PFDA)        | ng/L  | Twice Annually              | 24-hour Composite |

#### Sludge

| Parameter                            | Units | Measurement    | Sample Type       |
|--------------------------------------|-------|----------------|-------------------|
|                                      |       | Frequency      |                   |
| Perfluorohexanesulfonic acid (PFHxS) | ng/L  | Twice Annually | 24-hour Composite |
| Perfluoroheptanoic acid (PFHpA)      | ng/L  | Twice Annually | 24-hour Composite |
| Perfluorononanoic acid (PFNA)        | ng/L  | Twice Annually | 24-hour Composite |
| Perfluorooctanesulfonic acid (PFOS)  | ng/L  | Twice Annually | 24-hour Composite |
| Perfluorooctanoic acid (PFOA)        | ng/L  | Twice Annually | 24-hour Composite |
| Perfluorodecanoic acid (PFDA)        | ng/L  | Twice Annually | 24-hour Composite |

2. The requirements of this paragraph apply solely to municipal and regional wastewater treatment facilities and not to privately owned sanitary wastewater treatment facilities. Pursuant to 314 CMR 3.11 (2)(a)6., and in accordance with MassDEP's obligation under 314 CMR 4.05(5)(e) to maintain surface waters free from pollutants in concentrations or combinations that are toxic to humans, aquatic life, or wildlife, beginning six (6) months after the permittee has been notified by EPA of a multi-lab validated method for wastewater, or by the dates set forth in Appendix A of the draft Massachusetts Wastewater Treatment Facilities General Permit Modification, whichever is earlier, the permittee shall commence annual

<sup>&</sup>lt;sup>1</sup> Twice annually is defined as once during the third calendar quarter (July through September) and once during the fourth calendar quarter (October through December).

monitoring of all Significant Industrial Users<sup>2,3</sup> discharging into the POTW. Monitoring shall be in accordance with the table below. If EPA's multi-lab validated method is not available by twenty (20) months after the effective date permittee's authorization under the 2023 Federal NPDES General Permit Modification, the permittee shall contact MassDEP (<u>massdep.npdes@mass.gov</u>) for guidance on an appropriate analytical method. Notwithstanding any other provision of the 2023 Federal NPDES Small Wastewater Treatment Facility General Permit Modification to the contrary, monitoring results shall be reported to MassDEP electronically at <u>massdep.npdes@mass.gov</u> within 30 days after they are received. If the permittee is the following facility, the permittee shall commence this monitoring beginning one (1) year after the effective date of the permittee's authorization under the 2023 Federal NPDES General Permit Modification and shall contact MassDEP (<u>massdep.npdes@mass.gov</u>) 90 days prior to starting monitoring for guidance on the appropriate analytical method: Wayland WWMDC.

| Parameter                            | Units | Measurement    | Sample Type       |
|--------------------------------------|-------|----------------|-------------------|
|                                      |       | Frequency      |                   |
| Perfluorohexanesulfonic acid (PFHxS) | ng/L  | Twice Annually | 24-hour Composite |
| Perfluoroheptanoic acid (PFHpA)      | ng/L  | Twice Annually | 24-hour Composite |
| Perfluorononanoic acid (PFNA)        | ng/L  | Twice Annually | 24-hour Composite |
| Perfluorooctanesulfonic acid (PFOS)  | ng/L  | Twice Annually | 24-hour Composite |
| Perfluorooctanoic acid (PFOA)        | ng/L  | Twice Annually | 24-hour Composite |
| Perfluorodecanoic acid (PFDA)        | ng/L  | Twice Annually | 24-hour Composite |

<sup>&</sup>lt;sup>2</sup> Significant Industrial User (SIU) is defined at 40 CFR part 403: All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR chapter I, subpart N; **and** any other industrial user that: discharges an average of 25,000 GPD or more of process wastewater to the POTW, contributes a process wastestream that makes up 5% or more of the average dry weather hydraulic or organic capacity of the POTW, or designated as such by the POTW on the basis that the industrial users has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standards or requirement.

<sup>&</sup>lt;sup>3</sup> This requirement applies to all Significant Industrial Users and not just those within the sectors identified by EPA in the NPDES permit.

#### III. New Hampshire General Permit, Permit No. NHG580000

In compliance with the provisions of the Federal Clean Water Act, as amended (33 U.S.C. 1251 <u>et</u> <u>seq</u>.), owners and operators of WWTFs located in New Hampshire are authorized to discharge to all waters, unless otherwise restricted by the New Hampshire water quality standards, Title L, Water Management and Protection, Chapter 485-A:8 and the New Hampshire Code of Administrative Rules, Env-Wq 1700-1709, in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

Certain municipalities are also identified as Co-permittees related to operation and maintenance of the sewer system in compliance with the Standard Conditions of Part VIII and the terms and conditions of Part III.C, Unauthorized Discharges; Part IV.A, Operation and Maintenance of the Sewer System (which include conditions regarding the operation and maintenance of the collection systems owned and operated by the municipality); and Part IV.B, Alternate Power Source. Each Co-Permittee shall submit reports using NetDMR through EPA's Central Data Exchange, as specified in Part VI.2. Each eligible Co-permittee is listed in Attachment E of this General Permit.

The Permittee and Co-permittee are severally liable for their own activities under Parts III.C, IV.A and IV.B and required reporting under Part VI with respect to the portions of the collection system that they own or operate. They are not liable for violations of Parts III.C, IV.A and IV.B committed by others relative to the portions of the collection system owned and operated by others. Nor are they responsible for any reporting under Part VI that is required of other Permittees under Parts III.C, IV.A and IV.B.

This General Permit Modification shall become effective on the first day of the calendar month immediately following 60 days after signature.

This General Permit Modification revises and supersedes the 2021 Small WWTF General Permit issued on September 28, 2021, and shall expire at midnight, on November 30, 2026.

Signed this day of KENNETH Digitally signed by KENNETH MORAFF MORAFF Date: 2023.03.29 09:02:18-04'00'

Ken Moraff, Director Water Division Environmental Protection Agency Region 1 Boston, MA

#### A. Effluent Limitations and Monitoring Requirements for New Hampshire Facilities

During the period beginning on the effective date and lasting through the expiration date, the Permittee is authorized to discharge treated effluent from a wastewater treatment facility (WWTF) treating domestic sewage. The discharge shall be limited and monitored as specified below at the end of all treatment processes, including disinfection or dechlorination, or at an alternative representative location approved by EPA and the New Hampshire Department of Environmental Services (NHDES), that provides a representative sample of the effluent. The receiving water and the influent shall be monitored as specified below.

#### Table 1. Effluent Limitations and Monitoring Requirements for Facilities in New Hampshire

| Effluent Characteristic  | Discharge Limita                       | tion <sup>15</sup>                   | Monitoring Requirement <sup>1,2,3</sup> |                          |                             |
|--|--|--------------------------------------|---|--------------------------|-----------------------------|
| Parameter  | Average<br>Monthly                     | Average<br>Weekly                    | Maximum Daily                           | Measurement<br>Frequency | Sample<br>Type <sup>4</sup> |
| Effluent Flow <sup>5</sup>   | Rolling Annual<br>Average Limit<br>MGD |                                      |   | Continuous               | Recorder                    |
| Effluent Flow <sup>5</sup>   | Report MGD                             |                                      | Report MGD                              | Continuous               | Recorder                    |
| BOD <sub>5</sub>   | 30 mg/L<br>Limit <sup>6</sup> lb/day   | 45 mg/L<br>Limit <sup>6</sup> lb/day | 50 mg/L<br>Report lb/day                | 2/Week                   | Composite                   |
| CBOD <sub>5</sub> <sup>7</sup>   | 25 mg/L<br>Limit <sup>6</sup> lb/day   | 40 mg/L<br>Limit <sup>6</sup> lb/day | 45 mg/L<br>Report lb/day                | 2/Week                   | Composite                   |
| BOD <sub>5</sub> (or CBOD <sub>5</sub> <sup>7</sup> ) Removal          | ≥ 85 %                                 |                                      |   | 1/Month                  | Calculation                 |
| TSS  | 30 mg/L<br>Limit <sup>6</sup> lb/day   | 45 mg/L<br>Limit <sup>6</sup> lb/day | 50 mg/L<br>Report lb/day                | 2/Week                   | Composite                   |
| TSS Removal  | ≥85 %                                  |                                      |   | 1/Month                  | Calculation                 |
| pH Range <sup>8</sup>  |  | 6.5-8.0 S.U.                         |   | 1/Day                    | Grab                        |
| <i>Escherichia coli</i> <sup>9</sup><br>Class B waters                 | 126 colonies/100 mL                    |                                      | 406 colonies/100 mL                     | 3/Week                   | Grab                        |
| <i>Escherichia coli</i> <sup>9</sup><br>Class B Designated Beach Areas | 47 colonies/100<br>mL                  |                                      | 88 colonies/100<br>mL                   | 3/Week                   | Grab                        |
| Enterococci <sup>9</sup><br>Tidal waters used for swimming             | 35/100 mL                              |                                      | 104/100 mL                              | 1/Day                    | Grab                        |

| Effluent Characteristic  | Discharge Limitation <sup>15</sup> |         |  | Monitoring Req           | uirement <sup>1,2,3</sup> |
|--|------------------------------------|---------|--|--------------------------|---------------------------|
| Parameter  | Average                            | Average | Maximum Daily                                    | Measurement              | Sample                    |
| 0.10   | Monthly                            | Weekly  |  | Frequency                | Type <sup>4</sup>         |
| Fecal Coliform <sup>9,10</sup><br>Tidal waters used for shellfishing | 14/100 mL                          |         |  | <del>3/Week-</del> 1/Day | Grab                      |
| Fecal Coliform <sup>9,10</sup>                                       |                                    |         |  |                          |                           |
| Tidal waters used for shellfishing                                   |                                    |         | $\leq 10\%$                                      | <del>3/Week</del> -1/Day | C 1                       |
| (%  of samples > -43 - 28/100  mL)                                   |                                    |         |  |                          | Grab                      |
| Total Residual Chlorine <sup>11</sup>                                | Limit mg/L                         |         | Limit mg/L                                       | See footnote 11          | Grab                      |
| Total Recoverable Metals <sup>12</sup>                               | Limit mg/L                         |         | Limit mg/L                                       | 2/Month                  | Composite                 |
| Total Phosphorus <sup>12</sup>                                       | L imit ma/I                        |         |  | 2/Month                  | Composite                 |
| (freshwater only)  |                                    |         |  | 2/10101111               | Composite                 |
| Ammonia Nitrogen <sup>12</sup>                                       | I imit mg/I                        |         | I imit mg/I                                      | 2/Week                   | Composite                 |
| (specify season)   |                                    |         |  |                          | Composite                 |
| Total Nitrogen <sup>13</sup>   | Report mg/L<br>Report lb/day       |         |  | Varies <sup>13</sup>     | Composite                 |
| Total Kjeldahl Nitrogen <sup>13</sup>                                | Report mg/L                        |         |  | Varies <sup>13</sup>     | Composite                 |
| Nitrate + Nitrite <sup>13</sup>                                      | Report mg/L                        |         |  | Varies <sup>13</sup>     | Composite                 |
| Perfluorohexanesulfonic acid (PFHxS) <sup>14</sup>                   |                                    |         | Report ng/L                                      | 2/Year <sup>14</sup>     | Composite                 |
| Perfluorononanoic acid (PFNA) <sup>14</sup>                          |                                    |         | Report ng/L                                      | 2/Year <sup>14</sup>     | Composite                 |
| Perfluorooctanesulfonic acid (PFOS) <sup>14</sup>                    |                                    |         | Report ng/L                                      | 2/Year <sup>14</sup>     | Composite                 |
| Perfluorooctanoic acid (PFOA) <sup>14</sup>                          |                                    |         | Report ng/L                                      | 2/Year <sup>14</sup>     | Composite                 |
| Other <sup>15</sup>  | Limit                              |         | Limit  | Varies                   | Composite                 |
| Whole Effluent Toxicity (WET) Testing                                | 16,17                              |         | ·  | ·                        |                           |
| Dilution Factor (DF) $> 1$ and $< 10$                                |                                    |         | Chronic (C-<br>NOEC) $\geq$ (1/DF)<br>x 100% and | 4/Year                   | Composite                 |
|  |                                    |         | Acute (LC <sub>50</sub> ) $\geq$ 100%            | 1/ 1 Cul                 | Composite                 |
| Dilution Factor $\geq 10$ and $< 20$                                 |                                    |         | Acute $(LC_{50}) \ge$<br>100%                    | 4/Year                   | Composite                 |

| Effluent Characteristic                             | 2 Discharge Limitation <sup>15</sup> Monitoring Requirement <sup>1,2,</sup> |                   | Discharge Limitation <sup>15</sup> |                          |                             |
|---|---|-------------------|------------------------------------|--------------------------|-----------------------------|
| Parameter   | Average<br>Monthly  | Average<br>Weekly | Maximum Daily                      | Measurement<br>Frequency | Sample<br>Type <sup>4</sup> |
|   |   |                   | Report Chronic<br>(C-NOEC)         |                          |                             |
| Dilution Factor $\geq 20$ and $< 100$               |   |                   | Acute $(LC_{50}) \ge$<br>100%      | 4/Year                   | Composite                   |
| Dilution Factor $\geq$ 100 and $<$ 1,000            |   |                   | Acute $(LC_{50}) \ge$<br>50%       | 1/Year                   | Composite                   |
| Dilution Factor $\geq$ 1,000                        |   |                   |                                    | None                     |                             |
| Hardness (as CaCo <sub>3</sub> )                    |   |                   | Report mg/L                        |                          |                             |
| Ammonia Nitrogen                                    |   |                   | Report mg/L                        |                          |                             |
| Total Aluminum<br>(freshwater only)                 |   |                   | Report mg/L                        |                          |                             |
| Total Cadmium                                       |   |                   | Report mg/L                        | Same as WET              | Measurement                 |
| Total Copper  |   |                   | Report mg/L                        | Frequency and            | Sample Type                 |
| Total Lead  |   |                   | Report mg/L                        |                          |                             |
| Total Nickel  |   |                   | Report mg/L                        |                          |                             |
| Total Zinc  |   |                   | Report mg/L                        |                          |                             |
| Total Organic Carbon                                |   |                   | Report mg/L                        |                          |                             |
| Total Phosphorus <sup>21</sup><br>(freshwater only) |   |                   | Report mg/L                        | See Footnote<br>21       | Composite                   |

|                                      | Reporting Requirements |                   |               | Monitoring Re            | quirements <sup>1,2,3</sup> |
|--------------------------------------|------------------------|-------------------|---------------|--------------------------|-----------------------------|
| Ambient Characteristic <sup>18</sup> | Average<br>Monthly     | Average<br>Weekly | Maximum Daily | Measurement<br>Frequency | Sample Type <sup>4</sup>    |
| Hardness (freshwater only)           |                        |                   | Report mg/L   | <b>. . .</b>             | Grab                        |
| Salinity (marine only)               |                        |                   | Report ppt    |                          | Grab                        |
| Ammonia Nitrogen                     |                        |                   | Report mg/L   |                          | Grab                        |
| Total Aluminum (freshwater only)     |                        |                   | Report mg/L   |                          | Grab                        |
| Total Cadmium                        |                        |                   | Report mg/L   |                          | Grab                        |

| Total Copper                           | <br> | Report mg/L | Same as WET  | Grab |
|--|------|-------------|--------------|------|
| Total Nickel                           | <br> | Report mg/L | Monitoring   | Grab |
| Total Lead                             | <br> | Report mg/L | Frequency    | Grab |
| Total Zinc                             | <br> | Report mg/L |              | Grab |
| Total Organic Carbon                   | <br> | Report mg/L |              | Grab |
| Dissolved Organic Carbon <sup>19</sup> |      | Papart mg/I |              | Grah |
| (freshwater only)                      | <br> | Report mg/L |              | Grad |
| pH <sup>20</sup>                       | <br> | Report S.U. |              | Grab |
| Temperature <sup>20</sup>              | <br> | Report °C   |              | Grab |
| Total Phosphorus <sup>21</sup>         |      | Donort mg/I | See Footnote | Grah |
| (freshwater only)                      | <br> | Report mg/L | 21           | Giau |

|  | Reporting Requirements |                   |               | Monitoring Requirements <sup>1,2,3</sup> |                          |
|--|------------------------|-------------------|---------------|--|--------------------------|
| Influent Characteristic                            | Average<br>Monthly     | Average<br>Weekly | Maximum Daily | Measurement<br>Frequency                 | Sample Type <sup>4</sup> |
| BOD <sub>5</sub> or CBOD <sub>5</sub> <sup>7</sup> | Report mg/L            |                   |               | 2/Month                                  | Composite                |
| TSS  | Report mg/L            |                   |               | 2/Month                                  | Composite                |
| Perfluorohexanesulfonic acid (PFHxS) <sup>14</sup> |                        |                   | Report ng/L   | 2/Year <sup>14</sup>                     | Composite                |
| Perfluorononanoic acid (PFNA) <sup>14</sup>        |                        |                   | Report ng/L   | 2/Year <sup>14</sup>                     | Composite                |
| Perfluorooctanesulfonic acid (PFOS) <sup>14</sup>  |                        |                   | Report ng/L   | 2/Year <sup>14</sup>                     | Composite                |
| Perfluorooctanoic acid (PFOA) <sup>14</sup>        |                        |                   | Report ng/L   | 2/Year <sup>14</sup>                     | Composite                |

|  | Reporting Requirements |                   |               | Monitoring Requirements <sup>1,2,3</sup> |                              |
|--|------------------------|-------------------|---------------|--|------------------------------|
| Sludge Characteristic                              | Average<br>Monthly     | Average<br>Weekly | Maximum Daily | Measurement<br>Frequency                 | Sample Type <sup>4</sup>     |
| Perfluorohexanesulfonic acid (PFHxS) <sup>22</sup> |                        |                   | Report ng/g   | Varies <sup>22</sup>                     | Grab/Composite <sup>23</sup> |
| Perfluorononanoic acid (PFNA) <sup>22</sup>        |                        |                   | Report ng/g   | Varies <sup>22</sup>                     | Grab/Composite <sup>23</sup> |
| Perfluorooctanesulfonic acid (PFOS) <sup>22</sup>  |                        |                   | Report ng/g   | Varies <sup>22</sup>                     | Grab/Composite <sup>23</sup> |
| Perfluorooctanoic acid (PFOA) <sup>22</sup>        |                        |                   | Report ng/g   | Varies <sup>22</sup>                     | Grab/Composite <sup>23</sup> |

Footnotes to Part III.A. Table 1:

- 1. All samples shall be collected in a manner to yield representative data. A routine sampling program shall be developed in which samples are taken at the same location, same time, and same days of the week each month. Occasional deviations from the routine sampling program are allowed, but the reason for the deviation shall be documented as an electronic attachment to the applicable discharge monitoring report. The Permittee shall report the results to the Environmental Protection Agency Region 1 (EPA) and the State of any additional testing above that required herein, if testing is in accordance with 40 CFR Part 136.
- 2. In accordance with 40 CFR § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is "sufficiently sensitive" when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter. The term "minimum level" refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor.

When a parameter is not detected above the ML, the Permittee must report the data qualifier signifying less than the ML for that parameter (e.g.,  $< 50 \ \mu g/L$ , if the ML for a parameter is 50  $\mu g/L$ ). For reporting an average based on a mix of values detected and not detected, assign a value of "0" to all non-detects for that reporting period and report the average of all the results.

- 3. Measurement frequency and sample type presented in this table are for all facilities other than systems utilizing sand filters or lagoons. For facilities utilizing sand filters or lagoons, sample type for all monitoring shall be Grab instead of Composite and any differences in sample frequency are specified in Part III.B.10.
- 4. A "grab" sample is an individual sample collected in a period of less than 15 minutes.

A "composite" sample is a composite of at least twenty-four (24) grab samples taken during one consecutive 24-hour period, either collected at equal intervals and combined proportional to flow or continuously collected proportional to flow.

5. The limit is a rolling annual average, reported in million gallons per day (MGD), which will be calculated as the arithmetic mean of the monthly average flow for the reporting month and

the monthly average flows of the previous eleven months. Also report monthly average and maximum daily flow in MGD.

The Farmington WWTF is only authorized to discharge to the Cocheco River when their groundwater discharge is at capacity due to an extreme precipitation event.

6. The average monthly and average weekly BOD<sub>5</sub> (or CBOD<sub>5</sub>) and TSS mass limitations are specific to each discharge, and are calculated using the following equation:

Mass limitation (lb/day) = [concentration limit (mg/L) \* facility's design flow (MGD) \* 8.34]

- 7. The CBOD<sub>5</sub> limitations apply in lieu of BOD<sub>5</sub> limitations if already included in a facility's existing permit.
- 8. The pH shall be within the specified range at all times. The minimum and maximum pH sample measurement values for the month shall be reported in standard units (S.U.).

The pH range may be modified if the Permittee satisfies conditions set forth in Part III.E.5 below. Upon notification of an approval by NHDES, EPA will review and, if acceptable, will submit written notice to the Permittee of the permit change. The modified pH range will not be in effect until the Permittee receives written notice from EPA.

9. *E. coli* limits apply only to facilities discharging to freshwater, indicated as Class B in Attachment E (*i.e.*, all eligible NH dischargers except Newington, Newfields and Newmarket).

Enterococci and Fecal Coliform limits apply only to facilities discharging to marine waters, indicated as Class B (tidal) in Attachment E (*i.e.*, only Newington, Newfields and Newmarket). For major facilities discharging to marine waters (*i.e.*, Newington and Newmarket), the Enterococci measurement frequency is once per day. For minor facilities discharging to marine waters (*i.e.*, only Newfields), the Enterococci measurement frequency is five per week.

Bacteria monitoring shall be conducted concurrently with TRC monitoring, if TRC monitoring is required. The monthly average limits for bacteria are expressed as a geometric mean.

For samples tested using the Most Probable Number (MPN) method, the units may be expressed as MPN. The units may also be expressed as colony forming units (cfu) when using the Membrane Filtration method.

 Fecal coliform samples must be tested using the 5-tube decimal dilution test included in 40 CFR Part 136. The average monthly values for fecal coliform shall be determined by calculating the geometric mean using daily sample results. As a daily maximum, not more than 10 percent of collected samples (over a monthly period) shall exceed a Most Probable Number (MPN) of -43-28 per 100 mL for the 5-tube decimal dilution test. Each month the percentage of collected samples that exceeds an MPN of 43-28 per 100 mL-for the 5-tube decimal dilution test shall be reported at the Daily Maximum value. Furthermore, all Fecal Coliform data collected must be submitted with the monthly Discharge Monitoring Reports (DMRs).

Additionally, for facilities discharging to marine waters indicated as Class B (tidal) in Attachment E (*i.e.*, only Newington, Newfields and Newmarket), see State Permit Condition in Part III.E.11 below.

11. For total residual chlorine (TRC) limitations and other related requirements, see Part III.B.9 of this permit.

For dischargers to marine waters (*i.e.*, only Newfields, Newington and Newmarket), the measurement frequency is 2/day. For all other facilities, the measurement frequency is 1/day.

12. Limitations, if necessary, for ammonia nitrogen (seasonal in warm and/or cold weather), total phosphorus (seasonal during the growing season only; freshwater only), and/or total recoverable metals (year-round) will be established for each Permittee as calculated using the methodology provided as Appendix A of the Fact Sheet and as summarized in Attachment E.

See Part IV.E below for compliance schedules applicable to some of these limits.

13. Total Kjeldahl nitrogen and nitrate + nitrite samples shall be collected concurrently. The results of these analyses shall be used to calculate both the concentration and mass loadings of total nitrogen, as follows.

Total Nitrogen (mg/L) = Total Kjeldahl Nitrogen (mg/L) + Nitrate + Nitrite (mg/L)

Total Nitrogen (lb/day) = [(average monthly Total Nitrogen (mg/L) \* total monthly effluent flow (Millions of Gallons (MG)) / # of days in the month] \* 8.34

Monitoring shall be conducted at the following frequency:

- All lagoon facilities; quarterly monitoring
- Non-lagoon facilities with design flow < 100,000 gpd: quarterly monitoring
- Non-lagoon facilities with design flow  $\geq$  100,000 gpd: monthly monitoring

For facilities in the Long Island Sound watershed, see additional requirements in Part IV.F of this permit. Facilities in the Long Island Sound watershed are identified in Appendix B of the Fact Sheet.

For facilities covered by the Great Bay Total Nitrogen General Permit (permit number NHG58A000), these monitoring requirements do not apply.

- 14. Report in nanograms per liter (ng/L). Monitoring and reporting shall be done twice per year, once in each 3<sup>rd</sup> calendar quarter and once in each 4<sup>th</sup> calendar quarter. This reporting requirement for the listed PFAS parameters takes effect the first full 3<sup>rd</sup> or 4<sup>th</sup> calendar quarter following 6 months after EPA notifies the permittee that an EPA multi-lab validated method for wastewater is available.
- 15. Any existing limits in a facility's current NPDES permit that are more stringent than the limitations presented in this table will be included in that facility's authorization to discharge under the General Permit.

Colebrook must monitor twice per month for Oil & Grease. If the Facility has results of non-detect for 12 consecutive months, they may cease monitoring and report "NODI" code 9 (*i.e.*, conditional monitoring) in the relevant discharge monitoring report when monitoring is not required.

- 16. The Permittee shall conduct acute toxicity tests (LC50) and chronic toxicity tests (C-NOEC) in accordance with test procedures and protocols specified in Attachments A and B (for freshwater discharges) or Attachments C and D (for marine discharges) of this permit. LC50 and C-NOEC are defined in Part VIII.E. of this permit. The Permittee shall test the daphnid (Ceriodaphnia dubia) and the fathead minnow (Pimephales promelas) if discharging to freshwater (Class B) or the mysid shrimp (Mysidopsia bahia) and the inland silverside (Menidia beryllina) if discharging to marine waters (Class SA or SB). However, for Permittees that are currently authorized for a reduction in frequency or test species, or both, this reduction will be carried forward in the authorization to discharge under this General Permit. For facilities required to test once per quarter, toxicity test samples shall be collected during the same weeks each time of calendar quarters ending March 31st, June 30th, September 30th, and December 31st. For facilities required to test twice per year, toxicity test samples shall be collected during the same weeks each time of calendar quarters ending June 30<sup>th</sup> and September 30th. For facilities required to test once per year, toxicity test samples shall be collected during the same weeks each time of calendar quarter ending September 30th. The complete report for each toxicity test shall be submitted as an attachment to the DMR submittal which includes the results for that toxicity test.
- 17. For Part I.A.1., Whole Effluent Toxicity Testing, the Permittee shall conduct the analyses specified in Attachments A and B (for freshwater discharges) or Attachments C and D (for marine discharges), Part VI. CHEMICAL ANALYSIS for the effluent sample. If toxicity test(s) using the receiving water as diluent show the receiving water to be toxic or unreliable, the Permittee shall follow procedures outlined in Attachments A and B (for freshwater discharges) or Attachments C and D (for marine discharges), Section IV., DILUTION WATER. Minimum levels and test methods are specified in Attachment A and B (for freshwater discharges) or Attachments C and D (for marine discharges), Part VI. CHEMICAL ANALYSIS.
- 18. For Part I.A.1., Ambient Characteristic, the Permittee shall conduct the analyses specified in **Attachments A and B** (for freshwater discharges) or **Attachments C and D** (for marine

discharges), Part VI. CHEMICAL ANALYSIS for the receiving water sample collected as part of the WET testing requirements. Such samples shall be taken from the receiving water at a point immediately upstream (for freshwater discharges) or outside (for marine discharges) of the permitted discharge's zone of influence at a reasonably accessible location, as specified in **Attachments A and B** (for freshwater discharges) or **Attachments C and D** (for marine discharges). Minimum levels and test methods are specified in **Attachment A and B** (for freshwater discharges) or **Attachment S**. Part VI. CHEMICAL ANALYSIS.

- 19. Monitoring and reporting for dissolved organic carbon (DOC) are not requirements of the Whole Effluent Toxicity (WET) tests but are additional requirements. The Permittee may analyze the WET samples for DOC or may collect separate samples for DOC concurrently with WET sampling.
- 20. A pH and temperature measurement (for all Permittees) and a total phosphorus measurement (only for Permittees discharging to freshwater) shall be taken of each receiving water sample at the time of collection and the results reported on the appropriate DMR. These pH and temperature measurements are independent from any pH and temperature measurements required by the WET testing protocols.
- 21. For Permittees discharging to freshwater with a dilution factor below 20 (except Farmington), total phosphorus effluent monitoring shall be conducted concurrently with any whole effluent toxicity testing between April 1<sup>st</sup> and October 31<sup>st</sup>. Additionally, such Permittees shall develop and implement a sampling and analysis plan for biennially collecting monthly samples at a location upstream of the facility. Samples shall be collected once per month, from May through September, every other calendar year starting on the calendar year following the date of permit issuance. The Permittee may enter "NODI" code 9 (*i.e.*, conditional monitoring) in the relevant discharge monitoring report during years when monitoring is not required. Sampling shall be conducted on any calendar day that is preceded by at least 72 hours without rainfall, following the last rainfall of 0.1 inches of rainfall or greater. A sampling plan shall be submitted to EPA and the State at least three months prior to the first planned sampling date as part of a Quality Assurance Project Plan. See Part III.E.12 for more details regarding this sampling plan.
- 22. Report in nanograms per gram (ng/g).

Monitoring and reporting for PFAS in the sludge of non-lagoon facilities shall be done twice per year, once in each 3<sup>rd</sup> calendar quarter and once in each 4<sup>th</sup> calendar quarter. This reporting requirement for the listed PFAS parameters takes effect the first full 3<sup>rd</sup> or 4<sup>th</sup> calendar quarter following 6 months after EPA notifies the Permittee that an EPA multi-lab validated method for sludge is available.

Monitoring and reporting for PFAS in the sludge of lagoon facilities shall be done once per permit term, in the first full 3<sup>rd</sup> calendar quarter following 6 months after EPA notifies the Permittee that an EPA multi-lab validated method for sludge is available. This sampling shall

include at least one representative composite sample per individual lagoon cell. Permittee shall submit a sampling plan to the NHDES Residual Management Section for review and approval at least 30 days prior to sampling.

23. Sludge sampling shall be as representative as possible based on guidance found at <u>https://www.epa.gov/sites/production/files/2018-11/documents/potw-sludge-sampling-guidance-document.pdf</u>.

#### **B.** Other Requirements

- 1. The discharge shall not cause a violation of the water quality standards of the receiving water.
- 2. The discharge shall be free from substances in kind or quantity that settle to form harmful benthic deposits; float as foam, debris, scum or other visible substances; produce odor, color, taste or turbidity that is not naturally occurring and would render the surface water unsuitable for its designated uses; result in the dominance of nuisance species; or interfere with recreational activities.
- 3. Tainting substances shall not be present in the discharge in concentrations that individually or in combination are detectable by taste and odor tests performed on the edible portions of aquatic organisms.
- 4. The discharge shall not result in toxic substances or chemical constituents in concentrations or combinations in the receiving water that injure or are inimical to plants, animals, humans or aquatic life; or persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in edible portions of fish, shellfish, other aquatic life, or wildlife that might consume aquatic life.
- 5. The discharge shall not result in benthic deposits that have a detrimental impact on the benthic community. The discharge shall not result in oil and grease, color, slicks, odors, or surface floating solids that would impair any existing or designated uses in the receiving water.
- 6. The discharge shall not result in an exceedance of the naturally occurring turbidity in the receiving water by more than 10 NTUs.
- 7. The Permittee must provide adequate notice to EPA-Region 1 and the State of the following:
  - a. Any new introduction of pollutants into the POTW or facility from an indirect discharger which would be subject to Part 301 or Part 306 of the Clean Water Act if it were directly discharging those pollutants or in a primary industry category (see 40 CFR Part 122 Appendix A as amended) discharging process water; and
  - b. Any substantial change in the volume or character of pollutants being introduced into that POTW or facility by a source introducing pollutants into the POTW or facility at the time of issuance of the permit.
  - c. For purposes of this paragraph, adequate notice shall include information on:
    - (1) The quantity and quality of effluent introduced into the POTW or facility; and
    - (2) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW or facility.
- 8. Pollutants introduced into the POTW or facility by a non-domestic source (user) shall not pass through the POTW or facility or interfere with the operation or performance of the works.

- 9. Total Residual Chlorine (TRC) limitations and related requirements are specified below:
  - a. TRC limitations only apply to discharges which have been previously chlorinated or which contain residual chlorine. The maximum daily and average monthly concentrations of TRC allowed in the effluent are based on the appropriate water-quality criterion, which are listed below:

Freshwater acute =  $19 \mu g/l$  (0.019 mg/1); use for daily maximum

Freshwater chronic =  $11 \mu g/1$  (0.011 mg/1); use for average monthly

Marine acute =  $13 \mu g/1$  (0. 013 mg/1); use for daily maximum

Marine chronic =  $7.5 \ \mu g/1$  (0. 0075 mg/1); use for average monthly

Daily maximum and average monthly effluent limits are calculated using the appropriate water quality criteria (listed above) and the dilution factor (See Attachment E) according to the following equation:

Effluent Limit (Freshwater Discharges) = (Dilution Factor) x (Water Quality Criteria)

Effluent Limit (Marine Discharges) = (Dilution Factor) x (Water Quality Criteria) x 0.9

If the appropriate water quality-based TRC limits are greater than 1.0 mg/1, a daily maximum limit of 1.0 mg/L shall be applied to the discharge.

See Attachment E for a summary of any limits that become more stringent than a facility's existing TRC limits based on the calculations above.

- b. The Permittee shall minimize the use of chlorine while maintaining adequate bacterial control. Monitoring for total residual chlorine (TRC) is only required for discharges which have been previously chlorinated or which contain residual chlorine. For any permit limits below 20  $\mu$ g/L, the compliance level for TRC is 20  $\mu$ g/L.
- c. Chlorination and dechlorination systems shall include an alarm system for indicating system interruptions or malfunctions. Any interruption or malfunction of the chlorine dosing system that may have resulted in levels of chlorine that were inadequate for achieving effective disinfection, or interruptions or malfunctions of the dechlorination system that may have resulted in excessive levels of chlorine in the final effluent shall be reported with the monthly DMRs and in accordance with reporting requirements in Part II Standard Conditions. The report shall include the date and time of the interruption or malfunction, the nature of the problem, and the estimated amount of time that the reduced levels of chlorine or dechlorination chemicals occurred.
- d. Permittees authorized to conduct disinfection using an alternative to chlorine as the disinfectant are subject to the TRC limitations and monitoring requirements whenever chlorine is added to the treatment process for disinfection or for other purpose. For the

months in which chlorine is not added to the treatment process, the Permittee shall indicate this on DMRs using the "NODI" code 9 (*i.e.*, conditional monitoring).

10. The table below presents monitoring frequency for facilities utilizing sand filters or lagoons where different from Table 1 in Part III.A above.

| Effluent Characteristic           | Monitoring Frequency              |              |  |
|-----------------------------------|-----------------------------------|--------------|--|
| Parameter                         | <b>Facilities with</b> Facilities |              |  |
|                                   | Sand Filters                      | with Lagoons |  |
| BOD <sub>5</sub>                  | 2/Month                           | 1/Week       |  |
| CBOD <sub>5</sub>                 | 2/Month                           | 1/Week       |  |
| TSS                               | 2/Month                           | 1/Week       |  |
| pH Range                          | 3/Week                            | 1/Day        |  |
| Ammonia Nitrogen                  | 1/Week                            | 1/Week       |  |
| Escherichia coli                  | 1/Week                            | 2/Week       |  |
| Class B, Non-bathing beach waters |                                   | 2/ WCCK      |  |
| Escherichia coli                  | 1/Week 2/We                       |              |  |
| Class B, Bathing beach waters     | 1/Week 2/Week                     |              |  |

## C. Unauthorized Discharges

This permit authorizes discharges only from the outfall(s) listed in the written authorization to discharge from EPA in accordance with the terms and conditions of this permit. Discharges of wastewater from any other point sources, including sanitary sewer overflows (SSOs), are not authorized by this permit in accordance with Part VIII.D.1.e.(1) (24-hour reporting). See Part VI below for reporting requirements.

# D. Additional Requirements for Facilities Discharging to Marine Waters

The requirements below apply only to facilities that discharge to marine waters<sup>4</sup>.

- 1. For facilities with effluent diffusers, the Permittee shall operate the effluent diffuser according to the best management practices below:
  - a. Effluent diffusers shall be maintained as necessary to ensure proper operation. Proper operation means that the plumes from each port will be balanced relative to each other and that they all have unobstructed flow. Maintenance may include dredging in the vicinity of the diffuser, clean out of solids in the diffuser header pipe, removal of debris and repair/replacement of riser ports and pinch valves.

<sup>&</sup>lt;sup>4</sup> EPA notes that only Newfields, Newington and Newmarket are eligible facilities that would be subject to the provisions of Part III.D.

- b. Any necessary maintenance dredging must be performed only after receiving all necessary permits from the NHDES Wetlands Bureau and other appropriate agencies.
- c. To determine if maintenance will be required, the Permittee shall have a licensed diver or licensed marine contractor inspect and videotape the operation of the diffuser. The inspections and videotaping shall be performed in accordance with the following schedule:
  - i. Every year if no pinch valves have been installed on the riser ports; or
  - ii. Every 2 years if pinch valves have been installed on the riser ports.
- d. The video of the diffuser inspection and a copy of a report summarizing the results of the inspection shall be submitted to EPA and NHDES-WD on a USB drive within 60 days of each inspection. A schedule for cleaning, repairs, or other necessary maintenance shall be included in the report if the inspection indicates that it is necessary. Necessary cleaning, repairs, or other maintenance should be documented with a photo or video taken after the action is completed. The Permittee may request an extension of up to 60 additional days to submit this report.
- 2. NHDES Shellfish Notification Procedures

The Permittee shall immediately notify the Shellfish Section of NHDES-WD of possible high bacteria/virus loading events from the facility or its sewer collection system. Such events include:

- a. Any lapse or interruption of normal operation of the POTW disinfection system, or other event that results in discharge of sewage from the POTW or sewer infrastructure (pump stations, sewer lines, manholes, etc.) that has not undergone full disinfection as specified in the NPDES permit;
- b. Average daily flows in excess of the 0.29 MGD for Newington and 1.0 MGD for Newmarket; and
- c. Daily post-disinfection effluent samples of 43 organisms per 100 mL or greater. Notification shall also be made for instances where NPDES-required bacteria sampling is not completed, or where the results of such sampling are invalid. This is a state certification requirement.

Notification shall be made using the program's cell phone number. If Shellfish Program staff are not available to answer the phone, leave a message describing the issue or situation and provide your contact information, including phone number. Then, call the Shellfish Program's pager and enter a call back number. Upon initial notification of a possible high bacteria/virus loading event, Shellfish Program staff will determine the most suitable interval for continued notification and updates on an event-by-event basis.

> NHDES - Shellfish Program Cell phone: 603-568-6741 Pager: 603-771-9826

3. Pursuant to 40 CFR § 125.123(d)(4), this permit shall be modified or revoked at any time if, on the basis of any new data, the director determines that continued discharges may cause

unreasonable degradation of the marine environment.

### E. State Permit Conditions

- 1. The Permittee shall not at any time, either alone or in conjunction with any person or persons, cause directly or indirectly the discharge of waste into the said receiving water unless it has been treated in such a manner as will not lower the legislated water quality classification or interfere with the uses assigned to said water by the New Hampshire Legislature (RSA 485-A:12).
- 2. This NPDES discharge permit is issued by EPA under federal and state law. Upon final issuance by EPA, the New Hampshire Department of Environmental Services Water Division (NHDES-WD) may adopt this permit, including all terms and conditions, as a state permit pursuant to RSA 485-A:13.
- 3. EPA shall have the right to enforce the terms and conditions of this permit pursuant to federal law and NHDES-WD shall have the right to enforce the permit pursuant to state law, if the permit is adopted. Any modification, suspension, or revocation of this permit shall be effective only with respect to the agency taking such action and shall not affect the validity or status of the permit as issued by the other agency.
- 4. Pursuant to New Hampshire Statute RSA 485-A13,I(c), any person responsible for a bypass or upset at a *wastewater facility* shall give immediate notice of a bypass or upset to all public or privately owned water systems drawing water from the same receiving water and located within 20 miles downstream of the point of discharge regardless of whether or not it is on the same receiving water or on another surface water to which the receiving water is tributary. Wastewater facility is defined at RSA 485-A:2XIX as the structures, equipment, and processes required to collect, convey, and treat domestic and industrial wastes, and dispose of the effluent and sludge. The Permittee shall maintain a list of persons, and their telephone numbers, who are to be notified immediately by telephone. In addition, written notification, which shall be postmarked within 3 days of the bypass or upset, shall be sent to such persons.
- 5. The pH range of 6.5 to 8.0 Standard Units (S.U.) must be achieved in the final effluent unless the Permittee can demonstrate to NHDES-WD: 1) that the range should be widened due to naturally occurring conditions in the receiving water; or 2) that the naturally occurring receiving water pH is not significantly altered by the Permittee's discharge. The scope of any demonstration project must receive prior approval from NHDES-WD. In no case, shall the above procedure result in pH limits outside the range of 6.0 to 9.0 S.U., which is the federal effluent limitation guideline regulation for pH for secondary treatment and is found in 40 CFR § 133.102(c).
- 6. Pursuant to New Hampshire Code of Administrative Rules, Env-Wq 703.07(a):

- a. Any person proposing to construct or modify any of the following shall submit an application for a sewer connection permit to the department:
  - (1) Any extension of a collector or interceptor, whether public or private, regardless of flow;
  - (2) Any wastewater connection or other discharge in excess of 5,000 gpd;
  - (3) Any wastewater connection or other discharge to a WWTP operating in excess of 80 percent design flow capacity or design loading capacity based on actual average flow or loading for 3 consecutive months;
  - (4) Any industrial wastewater connection or change in existing discharge of industrial wastewater, regardless of quality or quantity;
  - (5) Any sewage pumping station greater than 50 gpm or serving more than one building; or
  - (6) Any proposed sewer that serves more than one building or that requires a manhole at the connection.
- 7. For each new or increased discharge of industrial waste to the POTW, the Permittee shall submit, in accordance with Env-Wq 305.10(b) an "Industrial Wastewater Discharge Request."
- 8. Pursuant to Env-Wq 305.15(d) and 305.16(f), the Permittee shall not allocate or accept for treatment more than 90 percent of the headworks loading limits of the facility.
- 9. Pursuant to Env-Wq 305.21, at a frequency no less than every five years, the Permittee shall submit to NHDES:
  - a. A copy of its current sewer use ordinance if it has been revised without department approval subsequent to any previous submittal to the department or a certification that no changes have been made.
  - b. A current list of all significant indirect dischargers to the POTW. At a minimum, the list shall include for each significant indirect discharger, its name and address, the name and daytime telephone number of a contact person, products manufactured, industrial processes used, existing pretreatment processes, and discharge permit status.
  - c. A list of all permitted indirect dischargers; and
  - d. A certification that the municipality is strictly enforcing its sewer use ordinance and all discharge permits it has issued.
- 10. When the effluent discharged for a period of three (3) consecutive months exceeds 80 percent of the design flow or design loading capacity, the Permittee shall submit to the permitting authorities a projection of flows and loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans. Before the design flow will be reached, or whenever treatment necessary to achieve permit limits cannot be assured, the Permittee may be required to submit plans for facility improvements.

- 11. Fecal Coliform For facilities discharging to marine waters used for shellfishing, daily post-disinfection effluent grab samples shall be collected and analyzed for fecal coliform using an EPA-approved analytical method (published in 40 CFR Part 136) that meets the timeliness requirements of the NHDES Shellfish Program. Results shall be reported to NHDES each month in accordance with state reporting requirements in Part VI.7 below. N/A
- 12. In accordance with footnote 21 of Part III.A above, a sampling plan shall be submitted to EPA and NHDES at least three months prior to the first planned sampling date as part of a Quality Assurance Project Plan. The sampling and analysis plan and/or supporting monitoring records shall include at a minimum the following information or criteria:
  - a. Site map with location of sampling point including a description of sampling point location, waterbody name, town/city and longitudinal/latitudinal coordinates.
  - b. Description of sampling methodology to include but not limited to:
    - (1) Sample preservation prior to laboratory analysis
    - (2) Sampling frequency
    - (3) Replicate frequency, whether analyzed in house or by a contract laboratory, to be each sample event. Designate the replicate sample on monitoring records with "REP."
  - c. Individual(s) who performed the sampling
  - d. Date(s) and time(s) sampling and analyses were performed
  - e. Laboratory name
  - f. Laboratory analysis method
  - g. Total phosphorus laboratory Reporting Detection Limit (RDL) and Method Detection Limit (MDL). The RDL shall be 5 ug/L or less.
  - h. All data and monitoring information shall be retained for 6 years from the date of the sample event and will be made available to EPA and NHDES upon request.
  - i. Data for the sample shall be entered in the DMR.
    - (1) If applicable, attach contract laboratory results for sample and replicate, including chain of custody, to the relevant DMR.
    - (2) The relative percent difference (RPD) between the sample and its corresponding replicate sample should be  $\leq 20\%$ . A comment on the DMR identifying the RPD for the sample event is to be included. If the analysis is conducted in house, comment is to include result for replicate sample also.
  - j. Other changes or criteria as specified by the agencies

### Note: THE FOLLOWING PARTS (Part IV – Part IX) INCLUDE COMMON ELEMENTS OF BOTH THE MASSACHUSETTS AND NEW HAMPSHIRE GENERAL PERMITS

### IV. Additional Limitations, Conditions, and Requirements

#### A. Operation and Maintenance of the Sewer System

Operation and maintenance (O&M) of the sewer system shall be in compliance with the Standard Conditions of Part II and the following terms and conditions. The Permittee **and Co-permittee(s)**, **if any**, shall complete the following activities for the collection system which it owns:

1. Maintenance Staff

The Permittee **and Co-permittee(s)**, **if any**, shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit. Provisions to meet this requirement shall be described in the Collection System O&M Plan required pursuant to Section <del>C.5</del>-IV.A.5. below.

2. Preventive Maintenance Program

The Permittee **and Co-permittee(s)**, **if any**, shall maintain an ongoing preventive maintenance program to prevent overflows and bypasses caused by malfunctions or failures of the sewer system infrastructure. The program shall include an inspection program designed to identify all potential and actual unauthorized discharges. Plans and programs to meet this requirement shall be described in the Collection System O&M Plan required pursuant to Section **C.5 IV.A.5**. below.

3. Infiltration/Inflow

The Permittee and Co-permittee(s), if any, shall control infiltration and inflow (I/I) into the sewer system as necessary to prevent high flow related unauthorized discharges from their collection systems and high flow related violations of the wastewater treatment plant's effluent limitations. Plans and programs to control I/I shall be described in the Collection System O&M Plan required pursuant to Section C.5 IV.A.5. below.

4. Collection System Mapping

If a Permittee **and Co-permittee(s), if any,** have not already prepared and submitted a collection system map, within 30 months of the effective date of this permit, the Permittee shall prepare a map of the sewer collection system it owns. If a Permittee **and Co-permittee(s), if any,** has already prepared and submitted a collection system map the Permittee shall continue to maintain a map of the sewer collection system it owns. The map shall be on a street map of the community, with sufficient detail and at a scale to allow easy interpretation. The collection system information shown on the map shall be based on current conditions and shall be kept up-to-date and available for review by federal, state, or local agencies. Such map(s) shall include, but not be limited to the following:

- a. All sanitary sewer lines and related manholes;
- b. All combined sewer lines, related manholes, and catch basins;

- c. All combined sewer regulators and any known or suspected connections between the sanitary sewer and storm drain systems (e.g. combination manholes);
- d. All outfalls, including the treatment plant outfall(s), CSOs, and any known or suspected SSOs, including stormwater outfalls that are connected to combination manholes;
- e. All pump stations and force mains;
- f. The wastewater treatment facility(ies);
- g. All surface waters (labeled);
- h. Other major appurtenances such as inverted siphons and air release valves;
- i. A numbering system which uniquely identifies manholes, catch basins, overflow points, regulators and outfalls;
- j. The scale and a north arrow; and
- k. The pipe diameter, date of installation, type of material, distance between manholes, and the direction of flow.
- 5. Collection System O&M Plan

If a Permittee **and Co-permittee(s), if any,** have not already prepared and submitted a Collection System O&M Plan, they shall develop and implement a Collection System O&M Plan in accordance with Parts (a) and (b) below.

- a. Within six (6) months of the effective date of the permit, the Permittee and Copermittee(s), if any, shall submit to EPA and the State
  - (1) A description of the collection system management goals, staffing, information management, and legal authorities;
  - (2) A description of the collection system and the overall condition of the collection system including a list of all pump stations and a description of recent studies and construction activities; and
  - (3) A schedule for the development and implementation of the full Collection System O&M Plan including the elements in paragraphs b.1. through b.8. below.
- b. The full Collection System O&M Plan shall be completed, implemented and submitted to EPA and the State within twenty-four (24) months from the effective date of this permit. The Plan shall include:
  - (1) The required submittal from paragraph 5.a. above, updated to reflect current information;
  - (2) A preventive maintenance and monitoring program for the collection system;

- (3) Description of sufficient staffing necessary to properly operate and maintain the sanitary sewer collection system and how the operation and maintenance program is staffed;
- (4) Description of funding, the source(s) of funding and provisions for funding sufficient for implementing the plan;
- (5) Identification of known and suspected overflows and back-ups, including manholes. A description of the cause of the identified overflows and back-ups, corrective actions taken, and a plan for addressing the overflows and back-ups consistent with the requirements of this permit;
- (6) A description of the Permittee's programs for preventing I/I related effluent violations and all unauthorized discharges of wastewater, including overflows and by-passes and the ongoing program to identify and remove sources of I/I. The program shall include an inflow identification and control program that focuses on the disconnection and redirection of illegal sump pumps and roof down spouts;
- (7) An educational public outreach program for all aspects of I/I control, particularly private inflow; and
- (8) An <u>Overflow Emergency Response Plan</u> to protect public health from overflows and unanticipated bypasses or upsets that exceed any effluent limitation in the permit.

If a Permittee **and Co-permittee(s)**, **if any**, have already prepared and submitted a Collection System O&M Plan, the Permittee shall update and implement the Collection System O&M Plan it has previously submitted to EPA and the State in accordance with Part (c) below. The plan shall be available for review by federal, state, and local agencies upon request.

- c. The Plan shall include:
  - (1) A description of the collection system management goals, staffing, information management, and legal authorities;
  - (2) A description of the collection system and the overall condition of the collection system including a list of all pump stations and a description of recent studies and construction activities;
  - (3) A preventive maintenance and monitoring program for the collection system;
  - (4) Description of sufficient staffing necessary to properly operate and maintain the sanitary sewer collection system and how the operation and maintenance program is staffed;
  - (5) Description of funding, the source(s) of funding and provisions for funding sufficient for implementing the plan;
  - (6) Identification of known and suspected overflows and back-ups, including manholes. A description of the cause of the identified overflows and back-ups, corrective actions taken, and a plan for addressing the overflows and back-ups consistent with the requirements of this permit;
  - (7) A description of the Permittee's programs for preventing I/I related effluent violations and all unauthorized discharges of wastewater, including overflows and by-passes and the ongoing program to identify and remove sources of I/I. The

program shall include an inflow identification and control program that focuses on the disconnection and redirection of illegal sump pumps and roof down spouts;

- (8) An educational public outreach program for all aspects of I/I control, particularly private inflow; and
- (9) An <u>Overflow Emergency Response Plan</u> to protect public health from overflows and unanticipated bypasses or upsets that exceed any effluent limitation in the permit.
- 6. Annual Reporting Requirement

The Permittee and Co-permittee(s), if any, shall submit a summary report of activities related to the implementation of its Collection System O&M Plan during the previous calendar year. The report shall be submitted to EPA and the State annually by March 31. The first annual report is due the first March 31<sup>st</sup> following submittal of the collection system O&M Plan required by Part I.C.5.b IV.A.5.b of this permit. The summary report shall, at a minimum, include:

- a. A description of the staffing levels maintained during the year;
- b. A map and a description of inspection and maintenance activities conducted and corrective actions taken during the previous year;
- c. Expenditures for any collection system maintenance activities and corrective actions taken during the previous year;
- d. A map with areas identified for investigation/action in the coming year;
- e. A summary of unauthorized discharges during the past year and their causes and a report of any corrective actions taken as a result of the unauthorized discharges reported pursuant to the Unauthorized Discharges section of this permit; and
- f. In Massachusetts, if the average annual flow in the previous calendar year exceeded 80 percent of the facility's design flow, or there have been capacity-related overflows, the report shall include items in (1) and (2) below. In New Hampshire, if the monthly average flow exceeded 80 percent of the facility's design flow for three consecutive months in the previous calendar year, or there have been capacity related overflows, the report shall include items in (1) and (2) below.
  - (1) Plans for further potential flow increases describing how the Permittee will maintain compliance with the flow limit and all other effluent limitations and conditions; and
  - (2) A calculation of the maximum daily, weekly, and monthly infiltration and the maximum daily, weekly, and monthly inflow for the reporting year.

### **B.** Alternate Power Source

In order to maintain compliance with the terms and conditions of this permit, the Permittee **and Co-permittee(s)**, **if any**, shall provide an alternative power source(s) sufficient to operate the

portion of the publicly owned treatment works it owns and operates, as defined in Part VIII.E.1 of this permit.

### C. Industrial Users

1. The Permittee shall submit to EPA and the State the name of any Industrial User (IU) subject to Categorical Pretreatment Standards under 40 CFR § 403.6 and 40 CFR chapter I, subchapter N (Parts 405-415, 417-430, 432, 447, 449-451, 454, 455, 457-461, 463-469, and 471 as amended) who commences discharge to the facility after the effective date of this permit.

This reporting requirement also applies to any other IU who is classified as a Significant Industrial User which discharges an average of 25,000 gallons per day or more of process wastewater into the facility (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastewater which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the facility; or is designated as such by the Control Authority as defined in 40 CFR § 403.3(f) on the basis that the industrial user has a reasonable potential to adversely affect the wastewater treatment facility's operation, or for violating any pretreatment standard or requirement (in accordance with 40 CFR § 403.8(f)(6)).

- 2. In the event that the Permittee receives originals of reports (baseline monitoring reports, 90day compliance reports, periodic reports on continued compliance, etc.) from industrial users subject to Categorical Pretreatment Standards under 40 CFR § 403.6 and 40 CFR chapter I, subchapter N (Parts 405-415, 417-430, 432-447, 449-451, 454, 455, 457-461, 463-469, and 471 as amended), or from a Significant Industrial User, the Permittee shall forward the originals of these reports within ninety (90) days of their receipt to EPA, and copy the State in accordance with Part VI.2 below.
- 3. Beginning the first full calendar quarter following 6 months after EPA has notified the Permittee that a multi-lab validated method for wastewater is available, the Permittee shall commence annual sampling of the following types of industrial discharges into the POTW:
  - Commercial Car Washes
  - Platers/Metal Finishers
  - Paper and Packaging Manufacturers
  - Tanneries and Leather/Fabric/Carpet Treaters
  - Manufacturers of Parts with Polytetrafluoroethylene (PTFE) or teflon type coatings (i.e. bearings)
  - Landfill Leachate
  - Centralized Waste Treaters
  - Contaminated Sites
  - Fire Fighting Training Facilities
  - Airports
  - Any Other Known or Expected Sources of PFAS

For dischargers in Massachusetts, sampling shall be for the following PFAS chemicals:

| Industrial User Effluent             | Maximum     | Monitoring Requirements |             |  |
|--------------------------------------|-------------|-------------------------|-------------|--|
| Characteristic                       | Daily       | Frequency               | Sample Type |  |
| Perfluorohexanesulfonic acid (PFHxS) | Report ng/L | 1/year                  | Composite   |  |
| Perfluoroheptanoic acid (PFHpA)      | Report ng/L | 1/year                  | Composite   |  |
| Perfluorononanoic acid (PFNA)        | Report ng/L | 1/year                  | Composite   |  |
| Perfluorooctanesulfonic acid (PFOS)  | Report ng/L | 1/year                  | Composite   |  |
| Perfluorooctanoic acid (PFOA)        | Report ng/L | 1/year                  | Composite   |  |
| Perfluorodecanoic acid (PFDA)        | Report ng/L | 1/year                  | Composite   |  |

For dischargers in New Hampshire, sampling shall be for the following PFAS chemicals:

| Industrial User Effluent             | Maximum     | Monitoring Requirements |             |  |
|--------------------------------------|-------------|-------------------------|-------------|--|
| Characteristic                       | Daily       | Frequency               | Sample Type |  |
| Perfluorohexanesulfonic acid (PFHxS) | Report ng/L | 1/year                  | Composite   |  |
| Perfluorononanoic acid (PFNA)        | Report ng/L | 1/year                  | Composite   |  |
| Perfluorooctanesulfonic acid (PFOS)  | Report ng/L | 1/year                  | Composite   |  |
| Perfluorooctanoic acid (PFOA)        | Report ng/L | 1/year                  | Composite   |  |

The industrial discharges sampled and the sampling results shall be summarized and submitted to EPA and copy the state as an electronic attachment to the March discharge monitoring report due April 15<sup>th</sup> of the calendar year following the testing.

# **D.** Sludge Conditions

- 1. The Permittee shall comply with all existing federal and state laws and regulations<sup>5</sup> that apply to sewage sludge use and disposal practices, including EPA regulations promulgated at 40 CFR Part 503, which prescribe "Standards for the Use or Disposal of Sewage Sludge" pursuant to § 405(d) of the CWA, 33 U.S.C. § 1345(d).
- 2. If both state and federal requirements apply to the Permittee's sludge use and/or disposal practices, the Permittee shall comply with the more stringent of the applicable requirements.
- 3. The requirements and technical standards of 40 CFR Part 503 apply to the following sludge use or disposal practices:
  - a. Land application the use of sewage sludge to condition or fertilize the soil
  - b. Surface disposal the placement of sewage sludge in a sludge only landfill

<sup>&</sup>lt;sup>5</sup> For Permittees in New Hampshire, compliance with the requirements of this permit or 40 CFR Part 503 shall not eliminate or modify the need to comply with applicable requirements under RSA 485-A and Env-Wq 800, New Hampshire Sludge Management Rules

- c. Sewage sludge incineration in a sludge only incinerator
- 4. The requirements of 40 CFR Part 503 do not apply to facilities which dispose of sludge in a municipal solid waste landfill. 40 CFR § 503.4. These requirements also do not apply to facilities which do not use or dispose of sewage sludge during the life of the permit but rather treat the sludge (e.g., lagoons, reed beds), or are otherwise excluded under 40 CFR § 503.6.
- 5. The 40 CFR Part 503 requirements include the following elements:
  - General requirements
  - Pollutant limitations
  - Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)
  - Management practices
  - Record keeping
  - Monitoring
  - Reporting

Which of the 40 CFR Part 503 requirements apply to the Permittee will depend upon the use or disposal practice followed and upon the quality of material produced by a facility. The EPA Region 1 Guidance document, "EPA Region 1 - NPDES Permit Sludge Compliance Guidance" (November 4, 1999), may be used by the Permittee to assist it in determining the applicable requirements.<sup>6</sup>

6. The sludge shall be monitored for pollutant concentrations (all Part 503 methods) and pathogen reduction and vector attraction reduction (land application and surface disposal) at the following frequency. This frequency is based upon the volume of sewage sludge generated at the facility in dry metric tons per year, as follows:

| less than 290             | 1/ year    |
|---------------------------|------------|
| 290 to less than 1,500    | 1 /quarter |
| 1,500 to less than 15,000 | 6 /year    |
| 15,000 +                  | 1 /month   |

Sampling of the sewage sludge shall use the procedures detailed in 40 CFR § 503.8.

7. Under 40 CFR § 503.9(r), the Permittee is a "person who prepares sewage sludge" because it "is ... the person who generates sewage sludge during the treatment of domestic sewage in a treatment works ...." If the Permittee contracts with *another* "person who prepares sewage

<sup>&</sup>lt;sup>6</sup> This guidance document is available upon request from EPA Region 1 and may also be found at: <u>http://www.epa.gov/region1/npdes/permits/generic/sludgeguidance.pdf</u>

sludge" under 40 CFR § 503.9(r) – i.e., with "a person who derives a material from sewage sludge" – for use or disposal of the sludge, then compliance with Part 503 requirements is the responsibility of the contractor engaged for that purpose. If the Permittee does not engage a "person who prepares sewage sludge," as defined in 40 CFR § 503.9(r), for use or disposal, then the Permittee remains responsible to ensure that the applicable requirements in Part 503 are met. 40 CFR § 503.7. If the ultimate use or disposal method is land application, the Permittee is responsible for providing the person receiving the sludge with notice and necessary information to comply with the requirements of 40 CFR § 503 Subpart B.

# E. Schedules of Compliance

EPA will indicate any applicable compliance schedule(s) on the Permittee's authorization to discharge based on the following:

- The Permittee will have a schedule of compliance of 18 months (other than the Leicester phosphorus limit which shall be 24 months) for any newly established or more stringent water quality-based effluent limits which EPA has determined the Permittee is not expected to be in compliance with upon the effective date of the General Permit (other than aluminum limits which are covered in subpart 3 below). During the compliance schedule, the Permittee shall monitor at the frequency specified in Table 1 and report monitoring results for these pollutant(s). The applicable Permittees and limits are listed below (see also Attachment E for numeric values of these limits).
  - a. Hardwick Gilbertville lead (monthly ave) limit
  - b. Middlesex School phosphorus (monthly ave) and cadmium (monthly ave) limits
  - c. Leicester phosphorus (monthly ave) limit [24 months]
  - d. Troy ammonia (monthly ave) limits
  - e. Whitefield copper (monthly ave and daily max) limits
  - f. Antrim lead (monthly ave) limit
  - g. Greenville phosphorus (monthly ave) limit
  - h. Epping phosphorus (monthly ave) and zinc (monthly ave and daily max) limits
  - i. Woodstock copper (monthly ave and daily max)
  - j. Henniker copper (monthly ave and daily max), total phosphorus (monthly ave)
  - k. West Swanzey copper (monthly ave and daily max)
  - 1. Wallis Sands copper (monthly ave and daily max), nickel (monthly ave), ammonia (monthly ave, May-Oct)
  - m. Charlton ammonia (monthly ave, May)
  - n. Upton total phosphorus (monthly ave)
  - o. Hopedale ammonia (monthly ave, May)
  - p. Manchester-by-the-Sea copper (monthly ave and daily max)
  - q. Pittsfield ammonia (monthly ave, June-Oct)
  - r. Pittsfield lead (monthly ave)
- 2. Within twelve (12) months of the authorization to discharge under the General Permit, the Permittee shall submit to EPA and the State a status report relative to the process improvements necessary to achieve the permit limit.

- 3. Aluminum Compliance Schedule
  - a. The effluent limit for total aluminum for Hardwick Gilbertville, MCI Concord, Douglas WWTP, Huntington, Oxford – Rochdale, and Hillsborough, Pittsfield, Peterborough, West Swanzey, and Hinsdale shall be subject to a schedule of compliance whereby the limit takes effect three years after the effective date of the permit. For the period starting on the effective date of this permit and ending three (3) years after the effective date, the Permittee shall monitor at the frequency specified in Table 1 and report only the monthly average aluminum concentration on the monthly DMR. After this initial three (3) year period, the Permittee shall comply with the monthly average total aluminum limit. The Permittee shall submit an annual report due by January 15<sup>th</sup> of each of the first three (3) years of the permit that will detail its progress towards meeting the final aluminum effluent limit.

At a minimum, the Permittee shall include in the annual report (a) an evaluation of all potentially significant sources of aluminum in the sewer system and alternatives for minimizing these sources, and (b) an evaluation of alternative modes of operation at the wastewater treatment facility in order to reduce the effluent levels of aluminum.

b. If during the three-year period after the effective date of the permit, the State adopts revised aluminum criteria but EPA has not yet approved them, then the Permittees may request a permit modification, pursuant to 40 CFR § 122.62(a)(3), for a further delay in the effective date of the final aluminum effluent limits. If new criteria are approved by EPA before the effective date of the final aluminum effluent limit, the Permittees may apply for a permit modification, pursuant to 40 CFR § 122.62(a)(3), to revise the time to meet the final aluminum effluent limit and/or for revisions to the permit based on whether there is reasonable potential for the facility's aluminum discharge to cause or contribute to a violation of the newly approved aluminum criteria.<sup>7</sup>

#### F. Additional Requirements for Facilities Discharging to Long Island Sound Watershed

This requirement applies to Permittees discharging to the tributaries and main stems of the Connecticut River, Thames River, and Housatonic River and have a design flow of greater than or equal to 0.1 MGD. See Attachment E for a list of facilities, design flows and receiving waters.

1. Within one year of the effective date of the authorization to discharge under the permit, the Permittee shall complete an evaluation of alternative methods of operating the existing wastewater treatment facility to optimize the removal of nitrogen in order to minimize the

<sup>&</sup>lt;sup>7</sup>The final effluent limits for aluminum may be modified prior to the end of the three-year compliance schedule if warranted by the new criteria and a reasonable potential analysis and consistent with anti-degradation requirements. Such a modification would not trigger anti-backsliding prohibitions, as reflected in CWA 402 § (o) and 40 CFR § 122.44(l), provided that such modification is finalized before the final limit takes effect.

annual average mass discharge of total nitrogen, and submit a report to EPA and the State documenting this evaluation and presenting a description of recommended operational changes. The Permittee shall implement the recommended operational changes in order to minimize the discharge loading of nitrogen. The methods to be evaluated include, but are not limited to, operational changes designed to enhance nitrification (seasonal and year-round), incorporation of anoxic zones, septage receiving policies and procedures, and side stream management.

If the Permittee has already conducted this evaluation under their existing permit, this requirement doesn't apply and the Permittee shall continue to optimize the treatment facility operations relative to total nitrogen (TN) removal through measures and/or operational changes designed to enhance the removal of nitrogen in order to minimize the annual average mass discharge of total nitrogen.

2. The Permittee shall submit an annual report to EPA and the State, by February 1<sup>st</sup> of each year, that summarizes activities related to optimizing nitrogen removal efficiencies, documents the annual nitrogen discharge load from the facility, and tracks trends relative to the previous calendar year and the previous five (5) calendar years. If, in any year, the treatment facility discharges of TN on an average annual basis have increased, the annual report shall include a detailed explanation of the reasons why TN discharges have increased, including any changes in influent flows/loads and any operational changes. The report shall include all supporting data.

# V. Obtaining Authorization to Discharge

# A. Obtaining Coverage

To obtain coverage under the General Permit, facilities identified in Attachment E of this General Permit may, at their election, submit a Notice of Intent (NOI) to EPA within 60 days of the effective date of the General Permit in accordance with 40 CFR § 122.28(b)(2)(i) & (ii). Facilities added through the General Permit Modification may submit a NOI to EPA within 60 days of the effective date of the General Permit Modification. The contents of the NOI shall include at a minimum, the legal name and address of the owner or operator, the facility name and address, type of facility or discharges, the receiving stream(s) and be signed by the operator in accordance with the signatory requirements of 40 CFR § 122.22, including the certification statement found at § 122.22(d), as follows:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

All NOIs must be submitted to EPA either electronically to <u>R1NPDESReporting@epa.gov</u> with copy to <u>Cobb.Michael@epa.gov</u> (Note: electronic submittals must include electronic signature) or physically to the following address:

United States Environmental Protection Agency ATTN: Municipal Permits Section 5 Post Office Square – Suite 100 Mail Code – 06-1 Boston, Massachusetts 02109-3912

Alternately, the Director may notify a discharger that it is covered this General Permit, even if the discharger has not submitted a notice of intent to be covered in accordance with 40 CFR § 122.28(b)(2)(vi). EPA has determined that the eligible dischargers listed in Attachment E of this General Permit may be authorized to discharge under the General Permit by this type of notification. Such authorization to discharge will be effective upon the date indicated in written notice from EPA.

Facilities currently covered under the expired POTW GP will maintain coverage under that administratively continued permit until receiving written notification from EPA of authorization to discharge under the reissued WWTF GP. Such authorization will be effective upon the date indicated in written notice from EPA.

Facilities to be covered under this General Permit for the first time will maintain coverage under their existing individual permits until receiving written notification from EPA of authorization to discharge under the reissued WWTF GP. Such authorization will be effective upon the date indicated in written notice from EPA. As a precondition to obtaining authorization to discharge under the WWTF GP, authorization to discharge pursuant to their individual permits will be removed using appropriate procedures under Part 124. Therefore, authorization to discharge under the WWTF GP will be subject to completion of appropriate Part 124 proceedings and will be effective upon the date indicated in written notice from EPA.

# B. When the Director May Require Application for an Individual NPDES Permit

The Director may require any operator authorized by or requesting coverage under this general permit to apply for and obtain an individual NPDES permit. Any interested person may petition the Director to take such action. Instances where an individual permit may be required include the following:

- 1. A determination under 40 CFR § 122.28(b)(3), including:
  - a. A change has occurred in the availability of the demonstrated technology of practices for the control or abatement of pollutants applicable to the point source(s);
  - b. Effluent limitation guidelines are promulgated for the point source(s) covered by this permit;
  - c. A Water Quality Management Plan or Total Maximum Daily Load containing requirements applicable to such point source(s) is approved and inconsistent with this

permit;

- d. Circumstances have changed since the time of the request to be covered so that the discharger is no longer appropriately controlled under the general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary; and
- e. The discharge(s) is a significant contributor of pollutants.
- 2. The discharger is not in compliance with the conditions of this General Permit.
- 3. The discharge(s) is in violation of State water quality standards for the receiving water.
- 4. Actual or imminent harm to aquatic organisms, including ESA or human health, is identified.

# C. When an Individual Permit May Be Requested

In accordance with 40 CFR § 122.28(b)(3)(iii), any owner or operator authorized by this General Permit may request to be excluded from the coverage of this General Permit. The owner or operator shall submit an application under § 122.21, with reasons supporting the request, to the Director no later than 90 days after the publication by EPA of the General Permit. Facilities added through the General Permit Modification may submit such a request to EPA no later than 90 days after EPA issues the General Permit Modification. The request shall be processed under Part 124. The request shall be granted by issuing of an individual permit if the reasons cited by the owner or operator are adequate to support the request.

When an individual NPDES permit is issued to an operator otherwise subject to this General Permit, the applicability of this General Permit to that owner or operator is automatically terminated on the effective date of the individual permit.

# **D. EPA Determination of Coverage**

Any operator may request to be covered under this General Permit but the final authority rests with EPA. Coverage under this general permit will not be effective until receipt of notification of inclusion from EPA. The effective date of coverage will be the date indicated in the authorization to discharge provided by EPA in writing. Any additional State conditions will be provided in writing.

Any operator authorized to discharge under this General Permit will receive written notification from EPA. Failure to receive from EPA written notification of permit coverage means that the operator is not authorized to discharge under this General Permit.

# VI. Monitoring, Record-Keeping, and Reporting Requirements

Unless otherwise specified in this permit, the Permittee shall submit reports, requests, and information and provide notices in the manner described in this section.

1. Submittal of DMRs Using NetDMR

The Permittee shall continue to submit its monthly monitoring data in discharge monitoring reports (DMRs) to EPA and the State no later than the 15th day of the month electronically using NetDMR. When the Permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to EPA or the State. NetDMR is accessible through EPA's Central Data Exchange at <u>https://cdx.epa.gov/</u>.

2. Submittal of Reports as NetDMR Attachments

Unless otherwise specified in this permit, the Permittee and Co-permittee(s), if any, shall electronically submit all reports to EPA (and MassDEP for dischargers in Massachusetts) as NetDMR attachments rather than as hard copies. For dischargers in New Hampshire, this includes the NHDES Monthly Operating Reports (MORs). See Part VI.5 for more information on State reporting. Because the due dates for reports described in this permit may not coincide with the due date for submitting DMRs (which is no later than the 15th day of the month), a report submitted electronically as a NetDMR attachment shall be considered timely if it is electronically submitted to EPA using NetDMR with the next DMR due following the report due date specified in this permit.

- 3. Submittal of Requests and Reports to EPA Water Division (WD)
  - a. The following requests, reports, and information described in this permit shall be submitted to the NPDES Applications Coordinator in EPA Water Division (WD):
    - (1) Transfer of permit notice;
    - (2) Request for changes in sampling location;
    - (3) Request for reduction in testing frequency;
    - (4) Request for change in WET testing requirement; and
    - (5) Report on unacceptable dilution water / request for alternative dilution water for WET testing.
    - (6) Report of new industrial user commencing discharge
    - (7) Report received from existing industrial user
    - (8) Request for extension of compliance schedule
  - b. These reports, information, and requests shall be submitted to EPA WD electronically at <u>R1NPDESReporting@epa.gov</u>.
- 4. Submittal of Reports to EPA Enforcement and Compliance Assurance Division (ECAD) in Hard Copy form
  - a. The following notifications and reports shall be signed and dated originals, submitted as hard copy, with a cover letter describing the submission:
    - (1) Written notifications required under Part VIII.B.4.c, for bypasses, and Part VIII.D.1.e, for sanitary sewer overflows (SSOs). Starting on 21 December 2025, such notifications must be done electronically using EPA's NPDES Electronic Reporting Tool ("NeT"),

or another approved EPA system, which will be accessible through EPA's Central Data Exchange at <u>https://cdx.epa.gov/</u>.

b. This information shall be submitted to EPA ECAD at the following address:

U.S. Environmental Protection Agency Enforcement and Compliance Assurance Division Water Compliance Section 5 Post Office Square, Suite 100 (04-SMR) Boston, MA 02109-3912

#### 5. State Reporting

For dischargers in MA only: Duplicate signed copies of all WET test reports shall be submitted to the Massachusetts Department of Environmental Protection, Division of Watershed Management, at the following address:

Massachusetts Department of Environmental Protection Bureau of Water Resources Division of Watershed Management 8 New Bond Street Worcester, Massachusetts 01606

For dischargers in NH only: Unless otherwise specified in this permit or by the State, duplicate signed copies of all reports, information, requests or notifications described in this permit, including the reports, information, requests or notifications described in Parts VI.3 and VI.4 shall also be submitted to the New Hampshire Department of Environmental Services, Water Division (NHDES–WD) electronically to the Permittee's assigned NPDES inspector at NHDES-WD or as a hardcopy to the following addresses:

New Hampshire Department of Environmental Services Water Division Wastewater Engineering Bureau 29 Hazen Drive, P.O. Box 95 Concord, New Hampshire 03302-0095

- 6. Verbal Reports and Verbal Notifications
  - a. Any verbal reports or verbal notifications, if required in Parts I through VIII of this permit, shall be made to both EPA and to the State. This includes verbal reports and notifications which require reporting within 24 hours (e.g., Part VIII.B.4.c.(2), Part VIII.B.5.c.(3), and Part VIII.D.1.e).
  - b. Verbal reports and verbal notifications shall be made to:

EPA ECAD at 617-918-1510 and MassDEP's Emergency Response at 888-304-1133 or

NHDES Assigned NPDES Inspector listed below: Central/South NH: 603-271-2985 North/West NH: 603-271-1494 NH Seacoast: 603-271-1493

### VII. Administrative Requirements

## A. Notice of Termination (NOT) of Discharge or Change of Owner/Operator

Permittees shall notify EPA and the appropriate State agency in writing upon the termination of any discharge(s) authorized by the WWTF GP. The NOT shall include the name, mailing address, phone number, and the location of the facility for which the notification is being submitted, the NPDES permit number of the discharge identified by the notice, and an indication of whether the discharge has been eliminated or if the owner/operator of the discharge has changed. The NOT shall be signed in accordance with the signatory requirements of 40 CFR § 122.22. Completed and signed NOTs shall be submitted to EPA and the appropriate State agency at the addresses provided in Part VI above.

## **B.** Continuation of this General Permit After Expiration

If this General Permit is not reissued prior to its expiration date, it will be administratively continued in accordance with the Administrative Procedures Act (5 U.S.C. 558(c)) and 40 CFR § 122.6 and remain in full force and in effect for discharges covered prior to its expiration. The permit application requirement under 40 CFR § 122.6 and Part VIII.A.7 of this permit has been waived for this permit term.

Coverage under this permit will not be available to any facility that is not authorized to discharge under the General Permit before the expiration date.

Any permittee whose authorization to discharge under this General Permit was administratively continued will automatically remain covered by the continued General Permit until the earlier of:

- 1. Authorization to discharge under a reissued permit or a replacement of this permit; or
- 2. The Permittee's submittal of a Notice of Termination; or
- 3. Issuance of an individual permit for the Permittee's discharge; or
- 4. A formal permit decision by EPA not to reissue this General Permit, at which time EPA will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit. Coverage under this permit will cease at the end of this time period.