UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

FACT SHEET

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES PURSUANT TO THE CLEAN WATER ACT (CWA)

NPDES PERMIT NUMBER: **MA0101613** [This draft permit is also integrating existing permit MA0103331[1]]

PUBLIC NOTICE START AND END DATES: **November 15, 2017 – December 14, 2017**

NAME AND MAILING ADDRESS OF APPLICANT:

Springfield Water and Sewer Commission
P.O. Box 995
Springfield, MA 01101-0995

The Massachusetts municipalities of Agawam, East Longmeadow, Longmeadow, Ludlow, West Springfield, and Wilbraham are co-permittees for specific activities required by the draft permit, as described in Section IX. of this Fact Sheet and as set forth in Sections I.C. and I.D. of the draft permit. The responsible municipal departments are:

Town of Agawam **Department of Public Works** **1000 Suffield St** **Agawam, MA 01001**	**Town of East Longmeadow** **Department of Public Works** **60 Center Square, 2nd Floor** **East Longmeadow, MA 01028**	**Town of Longmeadow** **Department of Public Works** **31 Pondside Road** **Longmeadow, MA 01106**
Town of Ludlow **Department of Public Works** **198 Sportsmans Road** **Ludlow, MA 01056**	**Town of West Springfield** **Department of Public Works** **26 Central Street, Suite 17** **West Springfield, MA 01089**	**Town of Wilbraham** **Department of Public Works** **240 Springfield St.** **Wilbraham, MA 01095**

[1] See Section X of this Fact Sheet

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Springfield Regional Waste Water Treatment Facility ("SRWWTF" or the "Facility" or "Bondi Island")
Route 5 Bondi Island
Agawam, MA 01001

And

24 Combined Sewer Overflows located in Springfield and Agawam, MA

RECEIVING WATER(S):

Connecticut River
Chicopee River
Mill River

RECEIVING WATER CLASSIFICATION(S):
All receiving waters are **Class B – Warm Water Fishery**

Contents

Attachments

I. PROPOSED ACTION, TYPE OF FACILITY, AND DISCHARGE LOCATION

The Springfield Water and Sewer Commission ("SWSC" or the "Commission") has applied to the U.S. Environmental Protection Agency ("EPA") for reissuance of its National Pollutant Discharge Elimination System ("NPDES") permit to discharge into the designated receiving waters. The existing permit was issued on December 8, 2000 and expired in February 2006. A complete and timely application for the permit re-issuance was submitted to EPA, and the existing permit was administratively continued pursuant to 40 C.F.R. § 122.6. Upon becoming effective, the draft permit and the authorization to discharge shall supersede the existing permit.

The existing permit authorizes the discharge from outfall 001 (formerly designated at outfall 041), which discharges treated municipal and industrial wastewater and stormwater from the SWSC's publicly owned treatment works ("POTW") to the Connecticut River. The SWSC also has been issued NPDES Permit No. MA0103331, which authorizes discharges of combined sanitary wastewater and stormwater from the Commission's 25 Combined Sewer Overflows ("CSOs") to the Connecticut, Chicopee and Mill Rivers. EPA's practice is to include CSO requirements in permits that authorize discharges from POTWs when the permittee owns and operates both a POTW and CSOs; therefore EPA is proposing to integrate the Commission's two NPDES permits into a single permit and terminate permit MA0103331. This is reflected in the conditions of the draft permit (see discussion of the separate permit in Section X of this Fact Sheet.). The locations of outfall 001 and the CSO outfalls are provided in **Attachments A** and **D**, respectively.

Additionally, EPA is adding six co-permittees to the draft permit. The towns of Agawam, Longmeadow, East Longmeadow, Ludlow, West Springfield and Wilbraham, Massachusetts own and operate sanitary wastewater collection systems that discharge flows to the SRWWTF for treatment[2.] These municipalities are co-permittees for certain activities pertaining to proper operation and maintenance of their respective collection systems (see Part I.C. and I.D of the draft permit). Adding them to the draft permit ensures that they comply with requirements to operate and maintain the collection systems so as to avoid discharges of sewage from the collection systems. These co-permittees did not apply for permit coverage; with letters sent November 3, 2015, EPA waived application requirements for the six co-permittees.

II. DESCRIPTION OF DISCHARGE

A quantitative description of the effluent discharged from outfall 001, based on recent monitoring data, is shown in **Attachment C**. Annual CSO discharge volumes from 2011-2016 are provided in **Attachment D.**

[2]Two other municipalities, the Town of Chicopee and the City of Springfield, contribute flows to the SWSC's collection system. Less than 1,000 residents in the Town of Chicopee are served by sewers discharging to the Commission's system; the remainder of the Town is served by a Town collection system and treatment plant. Because of the relatively small amount of sewers contributing flows, the Town of Chicopee was not added as a co-permittee. The City of Springfield also contributes sewage; however, all sanitary sewers in the City are owned and maintained by the Commission, not by the City. Therefore, the City is not a co-permittee.

III. RECEIVING WATER DESCRIPTION

The segments of the Connecticut River (segment MA34-05) and Mill River (segment MA34-29) at the points of discharge are located within the Connecticut River Basin. The segment of the Chicopee River into which several of the SWSC's CSO outfalls discharge (segment MA36-24) is located within the Chicopee River Basin. The Massachusetts Surface Water Quality Standards ("MA SWQS"), found at 314 Code of Massachusetts Regulations ("CMR") 4.06 Tables 6 and 8, classifies these river segments as Class B. The Connecticut and Chicopee Rivers are also classified as Warm Water Fisheries. The MA SWQS designate Class B Waters as having the following uses: (1) a habitat for fish, other aquatic life, and wildlife; (2) primary and secondary contact recreation; (3) a source of public water supply (i.e., where designated and with appropriate treatment); (4) suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses; and (5) shall have consistently good aesthetic value (314 CMR 4.05(3)(b)).

A warm water fishery is defined in the MA SWQS (314 CMR 4.02) as waters in which the maximum mean monthly temperature generally exceeds 20°C during the summer months and are not capable of supporting a year-round population of cold-water stenothermal aquatic life.

The segments of the receiving waters into which the discharges occur are identified in the MA SWQS with a CSO qualifier, indicating that these waters "are identified as impacted by the discharge of combined sewer overflows; however, a long term control plan has not been approved or fully implemented for the CSO discharges" 314 CMR 4.06(1)(d)(10).

Sections 303(d) and 305(b) of the Clean Water Act ("CWA") require that states complete a water quality inventory and develop a list of impaired waters. Specifically, section 303(d) requires states to identify those waterbodies that are not expected to meet water quality standards following the implementation of technology-based controls and, as such, require the development of a total maximum daily load ("TMDL"). In Massachusetts, these two evaluations have been combined into an Integrated List of Waters. The integrated list format provides the status of all assessed waters in a single, multi-part list.

The Final *Massachusetts Year 2014 Integrated List of Waters (MassDEP 2015)*(the "*2014 Integrated List*"), lists the segment of the Connecticut River into which outfall 001 and combined sewer overflow outfalls # 007, 008, 010, 011, 012, 013, 014, 015A, 015B, 016, 018, 042 and 049 discharge (segment MA 34-05) as a Category 5 water (waters requiring a TMDL for pollutants identified as causing impairment(s)). The pollutants listed as causing the impairment(s) and requiring a TMDL are *E. coli*, total suspended solids, and PCBs in fish tissue (*2014 Integrated List*). The segment of the Mill River into which combined sewer overflow outfalls #017, 019, 024, 025, 045, 046 and 048 discharge (segment 34-29) is listed as a category 5 water due to impairment(s) caused by *Escherichia coli (E. coli*). The segment of the Chicopee River into which combined sewer outfalls #034, 035, 036A and 037 discharge (segment 36-24) is listed as a Category 5 water due to impairment(s) caused by fecal coliform.

IV. LIMITATIONS AND CONDITIONS

The effluent limitations of the draft permit, the monitoring requirements, and any implementation schedule (if required) may be found in the draft permit.

V. PERMIT BASIS: STATUTORY AND REGULATORY AUTHORITY

Congress enacted the Clean Water Act ("CWA") "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." CWA § 101(a). To achieve this objective, the CWA makes it unlawful for any person to discharge any pollutant into the waters of the United States from any point source, except as authorized by specified permitting sections of the CWA, one of which is Section 402. See CWA §§ 301(a), 402(a).

Section 402(a) established one of the CWA's principal permitting programs, the National Pollutant Elimination System ("NPDES"). Under this section of the CWA, EPA may "issue a permit for the discharge of any pollutant, or combination of pollutants" in accordance with certain conditions. See CWA § 402(a). NPDES permits generally contain discharge limitations and establish related monitoring and reporting requirements. See CWA § 402(a)(1)-(2).

Section 301 of the CWA provides for two types of effluent limitations to be included in NPDES permits: "technology-based" limitations and "water quality-based" limitations. See §§ 301, 304(b); 40 C.F.R. §§ 122, 125, 131. Technology-based treatment requirements represent the minimum level of control that must be imposed under Sections 402 and 301(b) of the Clean Water Act. For publicly owned treatment works ("POTWs"), technology-based requirements are effluent limits based on secondary treatment as defined in 40 C.F.R. 133.102.

EPA regulations require NPDES permits to contain effluent limits more stringent than technology-based limits where necessary to maintain or achieve federal or state water quality standards. Under Section 301(b)(1)(C) of the CWA, discharges are subject to effluent limitations based on water quality standards. The MA SWQS, 314 CMR 4.00, establish requirements for the regulation and control of toxic constituents and also require that EPA criteria, established pursuant to Section 304 (a) of the CWA, shall be used unless a site-specific criterion is established. Massachusetts regulations similarly require that its permits contain limitations which are adequate to assure the attainment and maintenance of the water quality standards of the receiving waters as assigned in the MA SWQS. See 314 CMR 3.11(3). EPA is required to obtain certification from the state in which the discharge is located that all water quality standards or other applicable requirements of state law, in accordance with Section 301(b)(1)(C) of the CWA, are satisfied, unless the state certification is deemed to be waived.

In addition, a permit may not be renewed, reissued or modified with less stringent limitations or conditions than those contained in the previous permit unless in compliance with the anti-backsliding requirements of CWA Section 402(o) and 40 C.F.R. §122.44(l). States are also required to develop antidegradation policies pursuant to 40 C.F.R. § 131.12. No lowering of water quality is allowed, except in accordance with the antidegradation policy.

VI. FACILITY INFORMATION

The Springfield Water and Sewer Commission's Bondi Island treatment plant processes wastewater from the following municipalities, with the population served for each one (based on information submitted in 2005)

Springfield	156983
Agawam	29000
West Springfield	25935
Ludlow	19596
Longmeadow	15409
East Longmeadow	14504
Wilbraham	13092
Chicopee	566

The wastewater collection system consists of both sanitary sewers, which transport domestic, industrial, and commercial wastewater; and combined sewers, which transport domestic, industrial, and commercial wastewater plus stormwater. Under normal flow conditions, wastewater is conveyed to the Facility through interceptor sewers. During wet weather events in which the combined flow exceeds the hydraulic capacity of the interceptor sewer and/or the wastewater treatment plant, discharges of untreated combined sanitary wastewater and stormwater occur from the CSOs listed in **Attachment D** to the Connecticut, Mill and Chicopee Rivers.

The SRWWTF is a publicly owned treatment works ("POTW") with an annual average design of flow 67 million gallons per day ("MGD"). The Facility has the capacity to provide primary treatment for flows up to 180 MGD and secondary treatment for flows up to 134 MGD.

The treatment process train includes mechanical screens, primary clarification, aerated biological treatment, secondary clarification, chlorine disinfection, dechlorination, sludge thickening and sludge dewatering. Treated effluent is discharged through outfall 001 to the Connecticut River. During wet weather events in which the secondary treatment capacity of the facility is exceeded, flows in excess of 134 MGD bypass secondary treatment (receiving only primary treatment, chlorination, and dechlorination) in order to prevent damage to the operation of the secondary treatment system. At this time, there no feasible alternatives to this bypass have been identified without the discharge of additional untreated sewage in system's CSOs. Alternatives continue to be evaluated as part of long term CSO abatement planning. In addition, flows in excess of 180 MGD are discharged from CSO Outfall 042 (receiving no treatment). Currently, continuous sampling of the effluent is carried out on the secondarily-treated flow, at a point before the secondary bypass flow rejoins. Grab samples for bacteria and Total Residual Chlorine are collected from a point after dechlorination and include flow that bypassed secondary treatment. The draft permit requires that all samples be collected after comingling of the secondary effluent with flow that bypassed secondary treatment. A flow process diagram of the facility is provided in **Attachment B**. The facility is operated by SUEZ Water Environmental Services, Inc. under a twenty-year Service Agreement begun with the Commission in 2000.

VII. DERIVATION OF EFFLUENT LIMITS UNDER THE FEDERAL CWA AND THE COMMONWEALTH OF MASSACHUSETTS WATER QUALITY STANDARDS

EFFLUENT FLOW

The draft permit maintains the 12 month rolling average effluent flow limitation of 67 MGD that is in the current permit. This limit is based upon the annual average design flow of the facility, as reported in Form 2A, Part A, Section a.6. of the permit application. The draft permit requires continuous flow measurement, and also requires reporting of the average monthly and maximum daily flows. Effluent flow data that was collected and submitted by the permittee from 2011-2015 is shown in **Attachment C**.

Sewage treatment plant discharge is encompassed within the definition of "pollutant" and is subject to regulation under the CWA. The CWA defines "pollutant" to mean, inter alia, "municipal . . . waste" and "sewage…discharged into water." 33 U.S.C. § 1362(6).

EPA may use design flow of effluent both to determine the necessity for effluent limitations in the permit that comply with the Act, and to calculate the limits themselves. EPA practice is to use design flow as a reasonable and important worst-case condition in EPA's reasonable potential and water quality-based effluent limitations ("WQBEL") calculations to ensure compliance with water quality standards under Section 301(b)(1)(C). Should the effluent discharge flow exceed the flow assumed in these calculations, the instream dilution would decrease and the calculated effluent limits may not be protective of WQS. Further, pollutants that do not have the reasonable potential to exceed WQS at the lower discharge flow may have reasonable potential at a higher flow due to the decreased dilution. In order to ensure that the assumptions underlying the Region's reasonable potential analyses and derivation of permit effluent limitations remain sound for the duration of the permit, the Region may ensure its "worst-case" effluent wastewater flow assumption through imposition of permit conditions for effluent flow. Thus, the effluent flow limit is a component of WQBELs because the WQBELs are premised on a maximum level of flow. In addition, the flow limit is necessary to ensure that other pollutants remain at levels that do not have a reasonable potential to exceed WQS.

Using a facility's design flow in the derivation of pollutant effluent limitations, including conditions to limit wastewater effluent flow, is consistent with, and anticipated by, NPDES permit regulations. Regarding the calculation of effluent limitations for POTWs, 40 C.F.R. § 122.45(b)(1) provides, "permit effluent limitations…shall be calculated based on design flow." POTW permit applications are required to include the design flow of the treatment facility. Id. § 122.21(j)(1)(vi).

Similarly, EPA's reasonable potential regulations require EPA to consider "where appropriate, the dilution of the effluent in the receiving water," 40 C.F.R. § 122.44(d)(1)(ii), which is a function of both the wastewater effluent flow and receiving water flow. EPA guidance directs that this "reasonable potential" analysis be based on "worst-case" conditions. EPA accordingly is authorized to carry out its reasonable potential calculations by presuming that a plant is operating at its design flow when assessing reasonable potential.

The limitation on sewage effluent flow is within EPA's authority to condition a permit in order to carry out the objectives of the Act. See CWA §§ Sections 402(a)(2) and 301(b)(1)(C); 40 C.F.R. §§ 122.4(a) and (d); 122.43 and 122.44(d). A condition on the discharge designed to protect EPA's WQBEL and reasonable potential calculations is encompassed by the references to "condition" and "limitations" in 402 and 301 and implementing regulations, as they are designed to assure compliance with applicable water quality regulations, including antidegradation. Regulating the quantity of pollutants in the discharge through a restriction on the quantity of wastewater effluent is consistent with the overall structure and purposes of the CWA.

In addition, as provided in Part II.B.1 of the draft permit and 40 C.F.R. § 122.41(e), the permittee is required to properly operate and maintain all facilities and systems of treatment and control. Operating the facilities wastewater treatment systems as designed includes operating within the facility's design effluent flow. Thus, the permit's effluent flow limitation is necessary to ensure proper facility operation, which in turn is a requirement applicable to all NPDES permits. See 40 C.F.R. § 122.41.

Dilution Factor

Water quality-based limitations are established with the use of a calculated available dilution factor. 314 CMR 4.03(3)(a) of the MA SWQS requires that effluent dilution be calculated based on the receiving water 7Q10. The 7Q10 is the lowest observed mean river flow for 7 consecutive days, recorded over a 10-year recurrence interval. Additionally, the plant's design flow is used to calculate available effluent dilution.

The 7Q10 flow data used to calculate the proposed effluent limitations in the draft permit is based on measurements of flow in the Connecticut River above the Springfield WWTP, which was collected by the United States Geological Survey (USGS) gaging station 01170500 on the Connecticut River at Montague City, MA (period of record 1985-2015), as well as estimates of the drainage basin area above the outfall. The drainage basin area at the outfall (9,088 mi^2) was estimated by adding the drainage area of the Connecticut River, 1.1 mile upstream from the Westfield River (9,055 mi^2), to the drainage area of the Mill River, just upstream of the outfall (33 mi^2)[3]

The 7Q10 flow at the USGS gaging station 01170500 was divided by the drainage area in the river at the location of the station (7,860 mi^2) to derive a flow factor. This flow factor was then multiplied by the drainage area of the Connecticut River where outfall 001 is located to calculate a 7Q10 value of 2,435 cubic feet per second ("cfs") just above outfall 001. See Table 1.

[3] *Gazetteer of Hydrologic Characteristics of Streams in Massachusetts; Connecticut River Basin*. U.S. Geological Survey, Water-Resources Investigations Report 84-4282. 1984.

Table 1: Calculation of 7Q10 at Outfall 001 (formerly 041)

	USGS Gage 01170500	Just Above Outfall 001
Drainage Area (mi^2)	**7,860**	**9,088**
7Q10 (cfs)	**2,103**	**2,435**
Flow Factor (cfs/mi^2)	**0.268**	**NA**

The available dilution (dilution factor) at the point of discharge was then derived from the design flow of the facility (67 MGD) and the estimated 7Q10 at the point of discharge (2,435 cfs) as follows:

Dilution = (design flow (cfs) + $7Q10_{0utfall\ 041}$ (cfs)) / design flow of facility

Design Flow in cfs = (67 MGD * 1.55 cfs/MGD) = 103.8 cfs

Dilution Factor = (103.8 cfs + 2,435 cfs) / 103.8 cfs = 24

CONVENTIONAL POLLUTANTS

Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS)
Effluent concentration limits for biochemical oxygen demand (BOD_5) and total suspended solids (TSS) are technology-based limits based on the minimum level of effluent quality attainable by secondary treatment as set forth in 40 C.F.R. §133.102(a) and (b), respectively.

The requirements of 40 C.F.R. §133.102(a) and (b), which provide for effluent limits for BOD_5 and TSS of 30 mg/l (average monthly) and 45 mg/l (average weekly), are reflected in the draft permit. The draft permit also includes mass-based limits for BOD_5 and TSS, in accordance with the requirements of 40 C.F.R. §122.45(f). Mass loads for BOD_5 and TSS are calculated from concentration limits and the design flow, as shown below:

L = C x Q x 8.34

Where:

L = Mass loading (lbs/day)
C = Effluent concentration (limit) (mg/l)
Q = Design flow of the facility (MGD)
8.34 = Factor to convert effluent concentration, in mg/l, and design flow, in MGD, to lbs/day.

Average Monthly Mass Limit = 30 mg/l x 67 MGD X 8.34 = 16,763 lbs/day

Average Weekly Mass Limit = 45 mg/l x 67 MGD X 8.34 = 25,145 lbs/day

These concentration and mass-based limits are unchanged from the existing permit.

Percent removal requirements are also included in the secondary treatment standards of 40 C.F.R. §133.102(a)(3) and (b)(3), requiring that the average monthly percent removal for BOD_5 and TSS be not less than 85%. However, combined sewer systems may receive case-by-case consideration under 40 C.F.R. §133.103(a), which states:

> *Treatment works subject to this part may not be capable of meeting the percentage removal requirements . . . during wet weather where the treatment works receive flows from combined sewers (i.e. sewers which are designed to transport both storm water and sanitary sewage). For such treatment works, the decision must be made on a case-by-case basis as to whether any attainable percentage removal level can be defined, and if so, what the level should be.*

Additionally, 40 C.F.R. §133.103(e) states

> *The Regional Administrator or, if appropriate, the State Director is authorized to substitute either a lower percent removal requirement or a mass loading limit for the percent removal requirements set forth in §§ 133.102(a)(3), 133.102(a)(4)(iii), 133.102(b)(3), 133.105(a)(3), 133.105(b)(3) and 133.105(e)(1)(iii) provided that the permittee satisfactorily demonstrates that: (1) The treatment works is consistently meeting, or will consistently meet, its permit effluent concentration limits, but the percent removal requirements cannot be met due to less concentrated influent wastewater; (2) to meet the percent removal requirements, the treatment works would have to achieve significantly more stringent effluent concentrations than would otherwise be required by the concentration-based standards; and (3) the less concentrated influent wastewater does not result from either excessive infiltration or clear water industrial discharges during dry weather periods.*

The existing permit suspended the 85% removal requirement because the large area of combined system makes meeting the requirement difficult in wet weather.

EPA's general approach has been to suspend the percent removal requirements in wet weather only for CSO areas. There is no documentation that the percent removal requirements cannot be met in dry weather by the treatment works (in fact, using a monthly average that includes both wet and dry weather, the treatment works have met the percent removal requirement every month in the last five years). Therefore, the draft permit suspends the 85% removal requirement during wet weather, but implements the requirement during dry weather.

The Connecticut River is listed as impaired for TSS. The state water quality standard for suspended solids, at 314 CMR 4.05(3)(b)5, states

> *These waters shall be free from floating, suspended and settleable solids in concentrations and combinations that would impair any use assigned to this Class, that would cause*

aesthetically objectionable conditions, or that would impair the benthic biota or degrade the chemical composition of the bottom.

In addition to the numeric technology-based limitations in the draft permit for TSS, EPA has included narrative water quality limits and conditions in Parts I.A.1.a., c., and d. of the draft permit to limit solids discharged from this facility and to ensure attainment of the water quality standard established at 314 CMR 4.05(3)(b)5.

BOD_5 and TSS influent and discharge data from 2011-2015 is shown in **Attachment C**. There have been no reported exceedances for BOD_5 or TSS limits at the facility in that time.

pH

The technology-based secondary treatment requirements for pH are a minimum of 6.0 and maximum of 9.0 SU (40 C.F.R. §133.102(c)). The MA SWQS establishes that for class B waters, pH "[s]hall be in the range of 6.5 through 8.3 standard units and not more than 0.5 units outside of the natural background range." (314 CMR 4.05(4)(b)3).

The pH limits in the existing permit, which are a minimum of 6.5 standard units and a maximum of 8.3 standard units, are maintained in the draft permit, and are a condition of state certification.

Discharge data for pH for 2011-2015 is shown in **Attachment C**. There have been no reported exceedances for pH limits at the facility in that time.

Bacteria

Limitations for fecal coliform bacteria in the existing permit are based upon state water quality standards to protect seasonal recreational uses that were in effect at the time that permit was issued.

The bacteria limits are modified in the draft permit to reflect the new seasonal *Escherichia coli (E. coli*) recreational criteria in the revisions to the MA SWQS, 314 CMR 4.05(3)(b), approved by EPA in 2007. The monthly average limitation in the draft permit is 126 colony forming units ("cfu") per 100 ml, and shall be expressed as a monthly geometric mean. The daily maximum limitation in the draft permit is 409 cfu/100 ml (this is the 90% distribution of the geometric mean of 126 cfu/100ml).

The February 23, 1990, *Massachusetts Water Quality Standards Implementation Policy For The Control Of Toxic Pollutants In Surface Waters* requires disinfection "seasonally (April 1 through October 15) in segments designated for primary contact recreation". The *E. coli* limits in the draft permit are in effect from April 1 through October 31, which is the same seasonality as the bacteria limits in the existing permit and protect recreational uses during the bathing season.

The monitoring frequency is maintained at five times per week.

Bacteria discharge data from 2011-2015 is shown in **Attachment C.** There has been only a single reported exceedance for bacteria limits at the facility from 2011-2015 (occurring in June 2015).

NON-CONVENTIONAL AND TOXIC POLLUTANTS

Total Residual Chlorine ("TRC")

Chlorine compounds produced by the chlorination of wastewater can be extremely toxic to aquatic life. Effluent limits are based on water quality criteria for total residual chlorine ("TRC") which Massachusetts adopted by reference to EPA's *2002 National Recommended Water Quality Criteria* (EPA-822-R-02-047). The acute and chronic fresh water aquatic life criteria for TRC are 19 µg/l (Criterion Maximum Concentration) and 11 µg/l (Criterion Continuous Concentration), respectively. Given a dilution factor of 24, the total residual chlorine limitations are calculated as follows:

Total Residual Chlorine Limitations based on criteria:

(acute criteria x dilution factor) = Acute (Maximum Daily) Limit[4]
(19 µg/l x 24) = 456 µg/l = 0.46 mg/l

(chronic criteria x dilution) = Chronic (Monthly Average) Limit
(11 µg/l x 24) = 264 µg/l = 0.26 mg/l

In the existing permit, Total Residual Chlorine limits are in effect April through October. It is expected that chlorine will only be used seasonally, during the period that bacteria limits are in effect. However, in order to fully protect aquatic life, the draft permit clarifies that the chlorine limit is in effect year-round and that effluent sampling for total residual chlorine is only required when chlorine is added to the treatment process.

TRC discharge data from 2011-2015 is shown in **Attachment C**.

Metals

The release of metals into surface waters from anthropogenic activities such as discharges from municipal wastewater treatment facilities can result in their accumulation to levels that are highly toxic to aquatic life. Therefore, it is imperative to evaluate the downstream effects of discharges of metals from POTWs. The results of metals analyses conducted on both the effluent and upstream receiving water in conjunction with Whole Effluent Toxicity tests from 2010-2015 were evaluated during the development of the draft permit (See **Attachment E**).

Metals may be present in both dissolved and particulate forms in the water column. Extensive studies suggest that it is the dissolved fraction that is biologically available, and therefore, presents the greatest risk of toxicity to aquatic life inhabiting the water column. (https://www.epa.gov/sites/production/files/2014-10/documents/handbook-chapter3.pdf. See section 3.6). As a result, water quality criteria are established in terms of dissolved metals. However, regulations at 40 C.F.R. 122.45(c) require, with limited exceptions, that metals limits in NPDES permits be expressed as total recoverable metals. This accounts for the potential for a transition from the particulate to dissolved form as the effluent mixes with the receiving water (*The Metals*

[4] The table in Part I.A. of the existing permit contains a typographical error in which the acute limit of 0.38 mg/l chlorine is in the "Average Weekly" column, rather than "Maximum Daily" column. The draft permit correctly sets the acute limit as a Maximum Daily limit.

Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion (USEPA 1996 [EPA- 823-B96-007]).

The applicable water quality criteria for metals are the *EPA National Recommended Water Quality Criteria 2002* (USEPA 2002 {EPA-822-R-02-047}), which have been incorporated into the Massachusetts SWQS by reference at 314 CMR 4.05 (5)(e). For cadmium, copper, nickel, lead and zinc the water quality criteria are hardness dependent. Because the reasonable potential analysis is performed using dilution under 7Q10 conditions, a projected receiving water hardness under 7Q10 conditions is calculated using the same mass balance equations and the median hardness of the effluent (91 mg/l) and upstream receiving water (43 mg/l), as reported in WET test reports for analyses conducted between 2010 and 2015 (see **Attachment E**) for a calculated downstream hardness of 45 mg/l. The applicable criteria are shown below in table 1.

Table 1 Factors Used to Calculate Acute and Chronic Total Recoverable Metals Criteria

Metal	Parameters				Total Recoverable Criteria	
	ma	ba	mc	bc	Acute Criteria (CMC) (ug/L)	Chronic Criteria (CCC) (ug/L)
Aluminum	—	—	—	—	750	87
Cadmium	1.0166	-3.924	0.7409	-4.719	0.95	0.15
Copper	0.9422	-1.700	0.8545	-1.702	6.60	4.72
Lead	1.273	-1.46	1.273	-4.705	29.54	1.15
Nickel	0.846	2.255	0.846	0.0584	238.75	26.54
Zinc	0.8473	0.884	0.8473	0.884	60.91	60.91

* Acute Criteria (CMC) = exp{m_a*ln(hardness)+b_a}
** Chronic Criteria (CCC) = exp{m_c*ln(hardness)+b_c}

EPA analyzed the available effluent and receiving water metals data to determine whether these pollutants "are or may be discharged at a level that causes, has reasonable potential to cause, or contributes to an excursion above" the water quality standard. 40 C.F.R. 122.44(d)(1)(i).

The effluent was characterized using a statistical analysis of effluent metals data, as reported in WET test reports from 2010-2015 (see **Attachment E**), to establish the 95th percentile of the lognormal distribution of the effluent data, which represents the maximum effluent concentration that can be expected to occur 95 percent of the time (i.e., the upper bound of the lognormal distribution of the data). The statistical approach to characterizing the effluent is described in **Attachment F.**

The receiving water concentration of metals downstream from the discharge is calculated taking into account dilution at 7Q10 conditions, through a mass balance equation that accounts for metals concentrations in the Connecticut River upstream of the discharge as reported in the facility's WET test reports (**Attachment E**). The ambient aluminum, copper and lead results that were used in the reasonable potential analysis calculations shown in Table 2 were submitted by the SWSC during the permit development process following discussions with EPA regarding elevated sample results from

2010-2015, which would have resulted in a positive reasonable potential determination, as possibly being due to contamination introduced during sample collection and analysis. The recently-submitted data are from samples that were collected in August 2016 and September 2016 using clean sampling techniques.

The equation used to calculate the downstream metals concentration is as follows:

$$\text{Receiving water concentration } (C_r) = \frac{(C_d * Q_d + C_s * Q_s)}{(Q_d + Q_s)}; \text{ where}$$

C_d = Upper bound effluent metals concentration data (95th percentile)
Q_d = Design flow of facility
C_s = Median metals concentration in [receiving water] upstream of discharge
Q_s = 7Q10 streamflow in [receiving water] upstream of discharge

The resultant in-stream concentrations (for both acute and chronic conditions) are then compared to the criteria for each metal. The results of this analysis with respect to aluminum, cadmium, copper, lead, nickel and zinc are shown below in Table 2.

As indicated in table 2, based on the 95th percentile of the distribution of effluent data and the median upstream concentrations, there is no reasonable potential (for either acute or chronic conditions) that the discharge of metals will cause or contribute to an exceedance of the applicable water quality criteria and, therefore, limitations for metals have not been included in the draft permit. The draft permit does, however, require the permittee to monitor for metals in conjunction with quarterly WET tests, as discussed below (see Whole Effluent Toxicity).

Table 2 Results of Reasonable Potential Analysis for Metals

Metal	Qd	Cd (95th Percentile)	Qs	Cs (Median)	Qr	Cr = (QdCd+QsCs)/Qr	Criteria		Acute Reasonable Potential	Chronic Reasonable Potential	Limits	
	MGD	ug/l	MGD	ug/l	MGD	ug/l	Acute (ug/l)	Chronic (ug/l)	Cd & Cr > Criteria	Cd & Cr > Criteria	Acute (ug/l)	Chronic (ug/l)
Aluminum	67	128	1574	44.5	1641	47.9	750	87	N	N	N/A	N/A
Cadmium		0		0		0.00	0.95	0.15	N	N	N/A	N/A
Copper		66		1.1		3.75	6.60	4.72	N	N	N/A	N/A
Lead		7.1		0		0.29	29.54	1.15	N	N	N/A	N/A
Nickel		68		5.5		8.05	238.75	26.54	N	N	N/A	N/A
Zinc		71.6		16.2		18.5	60.91	60.91	N	N	N/A	N/A

Nitrogen

It has been determined that excessive nitrogen loadings are causing significant water quality problems in Long Island Sound, including low dissolved oxygen. In December 2000, the Connecticut Department of Energy and Environmental Protection ("CT DEEP") completed a Total Maximum Daily Load ("TMDL") for addressing nitrogen-driven eutrophication impacts in Long Island Sound. The TMDL included a Waste Load Allocation ("WLA") for point sources and a Load Allocation (LA) for non-point sources. The point source WLA for out-of-basin sources (Massachusetts, New Hampshire and Vermont wastewater facilities discharging to the Connecticut, Housatonic and Thames River watersheds) requires an aggregate 25% reduction from the baseline total nitrogen loading estimated in the TMDL. See TMDL--*A Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound* (CT DEP 2000).

The TMDL targeted a 25% reduction in the TN from out-of-basin point source loadings at the time the TMDL was developed. The TMDL estimated baseline loading and targets for each watershed are shown on Table 3. In 2006, in order to facilitate the TMDL in out-of-basin NPDES permits, EPA completed an analysis of the out-of-basin point sources, using 2004-05 discharge data, to determine compliance with the TMDL requirement of a 25% reduction. As can be seen from the summary in Table 3, the total estimated loading from the Connecticut River was 13,836 lbs/day in 2004-2005. Of that amount, Springfield's annual average TN load was 1,648 lbs/day. The 2004-2005 estimated loadings for all of the out-of-basin facilities are provided in **Attachment G.**

Table 3 Estimated Baseline Out-Of-Basin Loadings of Total Nitrogen from the Connecticut, Housatonic and Thames Rivers

Basin	TMDL Baseline[5] (lbs/day)	TMDL Target[6] (lbs/day)	Estimated 2004-2005 Loading[7] (lbs/day)
Connecticut River	21,672	16,254	13,836
Housatonic River	3,286	2,464	2,151
Thames River	1,253	939	1,015
Totals	26,211	19,657	17,002

As can be seen from Table 3, the overall TMDL target of a 25 percent aggregate reduction from baseline loadings to the Connecticut River above the Massachusetts-Connecticut border was met as of 2004-05. In order to ensure that the aggregate nitrogen loading from out-of-basin point sources does not exceed the TMDL target of a 25 percent reduction over baseline loadings, EPA has included permit conditions for all existing treatment facilities in Massachusetts and New Hampshire that discharge to the Connecticut, Housatonic and Thames River watersheds, requiring the permittees to evaluate alternative methods of operating their treatment plants to optimize the removal of nitrogen, and to describe previous and ongoing optimization efforts. Facilities not currently engaged in optimization efforts are also required to implement optimization measures sufficient to ensure that their nitrogen loads do not increase, and that the aggregate 25% reduction is maintained. EPA has

[5] Estimated loading from TMDL (see Appendix 3 to CT DEP "Report on Nitrogen Loads to Long Island Sound", April 1998).
[6] Reduction of 25% from baseline loading.
[7] Estimated loading from 2004 – 2005 DMR data. Detailed summary is provided in Attachment G.

worked with the State of Vermont to ensure that similar requirements are included in its discharge permits.

The existing Springfield permit requires monthly monitoring for nitrogen (ammonia, nitrite and nitrate, and total Kjeldahl nitrogen). From 2012-2016, the annual average TN load discharged from this facility ranged from 1,650 lbs/day to 2,534 lbs/day and averaged 2,279 lbs/day. Nitrogen discharge data from 2001-2016 are shown in **Attachment H**.

Invitation for Public Comment on Three Options for Addressing Nitrogen Discharges from the Springfield Regional Wastewater Treatment Facility:

The draft permit proposes, in part I.H, special conditions requiring the facility to optimize system operation to meet an annual average mass-based TN optimization benchmark of 2,279 lbs/day. EPA invites the public to also comment on two alternatives to the optimization benchmark in the draft permit. No final determination with respect to nitrogen conditions has been made. Therefore, EPA encourages the public to comment on the benefits and/or drawbacks of all three options. EPA also welcomes the proposal of alternative approaches to ensuring that discharges of TN from the Springfield WWTF are consistent with the TMDL. The three options are summarized in Table 4 and described below.

Table 4 Options for Total Nitrogen Optimization Benchmarks

Option	Loading Benchmark	Concentration Benchmark
Draft Permit Proposal	2,279 lbs/day	None
Alternative 1	2,534 lbs/day	8 mg/L
Alternative 2	None	8 mg/L

Draft Permit TN Optimization Requirement

In order to ensure that the LIS TMDL waste load allocation for out-of-basin point sources continues to be met, the draft permit includes a requirement for the facility to continue to optimize operations to meet a benchmark based on the current annual average TN load of 2,279 lbs/day. This benchmark was derived by averaging the TN load discharged from the facility over the last five years (2012-2016).

The current annual average TN load is 631 lbs/day greater than the 2004-2005 estimated load from this facility. Applying the revised Springfield benchmark to the estimated 2004-2005 loading results in a revised estimated loading of 14,467 for the other facilities which is still less than the TMDL target for the Connecticut River of 16,254 lbs/day (see Table 5).

Table 5 Out-Of-Basin Loadings of Total Nitrogen from the Connecticut, Housatonic and Thames Rivers Accounting for Optimization Benchmark of 2,279 lb/day

Basin	TMDL Baseline[8] (lbs/day)	TMDL Target[9] (lbs/day)	Revised Estimated Loading[10] (lbs/day)
Connecticut River	21,672	16,254	14,467
Housatonic River	3,286	2,464	2,151
Thames River	1,253	939	1,015
Totals	26,211	19,657	17,633

Monitoring and reporting requirements have been included in the draft permit to ensure that there is no increase in discharges of total nitrogen from this facility compared to the existing annual average loading from this facility (2,279 lbs/day). This value is considered to be likely achievable by the permittee using existing facilities while still meeting the objectives of the TMDL. Specifically, the draft permit requires continued optimization of the treatment facility operations to enhance the removal of nitrogen in order to maintain the annual average mass discharge of total nitrogen at less than the existing mass loading of 2,279 lbs/day. In addition, the draft permit requires the permittee to submit an annual report which includes: a summary of activities related to optimizing nitrogen removal efficiencies; documents the nitrogen load discharged from the facility; and, for any year in which the annual average nitrogen load discharged from the facility exceeds 2,279 lbs/day, a description of what may have led to the increased loading (including any changes in influent flows/loads and any operational changes) and any supporting data.

EPA is aware of discussions between communities in the Springfield area regarding the consolidation and treatment of wastewater flows at the Springfield WWTP. Should a facility divert flows to the Springfield WWTF and terminate its NPDES permit, the TN mass loading optimization benchmark that was allocated to that facility could be applied to Springfield's TN optimization benchmark of 2,279 lbs/day that is proposed in the draft permit. This approach is consistent with the objectives of the TMDL, as there would not be a net increase in the TN load being discharged to the Connecticut River.

Nitrogen Optimization Benchmark Alternative 1

The first alternative includes an annual average concentration based optimization benchmark of 8 mg/L combined with a higher annual average mass based optimization benchmark of 2,534 lbs/day (which was the maximum annual average TN load discharged from the facility from 2012-2016 (See Attachment H.). This approach would provide Springfield with the flexibility necessary for some future growth without allocating all of the remaining assimilative capacity of the receiving water to

[8] Estimated loading from TMDL (see Appendix 3 to CT DEP "Report on Nitrogen Loads to Long Island Sound", April 1998).
[9] Reduction of 25% from baseline loading.
[10] Estimated loading from 2004 – 2005 DMR data, with the exception of the Springfield WWTF, whose loading was based on the average loading from 2012-2016 (2,279 lbs/day). See Attachments G and H.

one facility. Further, the TMDL target of a 25% reduction in TN loadings from baseline loadings would be achieved, since the estimated load to the Connecticut River from out-of-basin point sources would be 14,772 lbs/day[11]. This is less than the TMDL target of 16,254 lbs/day, allowing for non-POTW point source loadings as well as any possible new point source discharges.

Nitrogen Optimization Benchmark Alternative 2

The second alternative includes an annual average concentration based optimization benchmark of 8 mg/l without a specific load based benchmark to encourage a consistent level of treatment regardless of changes in flow at Springfield. An effluent TN concentration of 8 mg/l at Springfield's existing annual average effluent flow of 38 MGD (the average of the annual average effluent flow values from 2012-2016) results in an annual average mass loading of 2,535 lbs/day.

Based on current facility operation, the TMDL target of a 25% reduction in TN loadings from baseline loadings would be achieved, since recent data indicates that the estimated load to the Connecticut River from out-of-basin point sources has actually decreased well below the 2004-2005 estimate. The sum of the DMR TN data for out-of-basin discharges was 11,820 lbs/day in 2014 during a year when Springfield discharged 2,342 lbs/yr. Assuming other dischargers remain at 2014 levels and Springfield discharges 2,535 lbs/day, the total out-of-basin load would be 12,013 lbs/day which is still well below the 13,836 lbs/day estimate of out-of-basin loads from 2004-2005 data (see Table 3) and the TMDL target of 16,254 lbs/day. While modest increases in TN mass loading could be expected under this approach if Springfield adds additional sewer users, the total out-of-basin load is unlikely to be exceeded.

Future Nitrogen Limits

EPA and state agencies expect to update the estimate of all out-of-basin total nitrogen loads and may incorporate total nitrogen limits in future permit modifications or reissuances as may be necessary to address increases in discharge loads, a revised TMDL, or other new information that may warrant the incorporation of numeric permit limits. In December 2015, EPA signed a letter detailing an EPA Nitrogen Reduction Strategy. EPA's strategy recognizes that more work must be done to reduce nitrogen levels, further improve dissolved oxygen conditions, and attain other related water quality criteria necessary to meet designated aquatic life uses in Long Island Sound. EPA is working to establish thresholds for Western Long Island Sound and several coastal embayments, including the mouth of the Connecticut River. Documents regarding the EPA Nitrogen Reduction Strategy are available for public review on EPA's Long Island Sound website (http://longislandsoundstudy.net/issues-actions/water-quality/nitrogen-strategy/). Upon completion of establishing thresholds, allocations of total nitrogen loadings will be made where further reductions are necessary. If further reductions are needed for the Springfield discharge, a water quality-based limit will be added in a future permit action. EPA is exploring possible trading approaches and more details will follow in the future as part of the permitting process.

[11]An annual average TN load of 2,534 lbs/day is 886 lbs/day greater than the TN load discharged in 2004, which was used in EPA's 2006 analysis of out-of basin point sources to the CT River Watershed (see Table 3 and Attachments G and H). This increase would bring the total estimated loadings to the CT River from out-of-basin point sources to 14,772 lbs/day, which is below the TMD target of 16,254 lbs/day.

Ammonia

Ammonia can be toxic to aquatic life and is also an oxygen-demanding pollutant whose biological decomposition may cause reduced dissolved oxygen concentrations in the receiving water.

In addition to the ammonia effluent monitoring required under the existing permit, samples of the receiving water collected upstream from the discharge are also analyzed for ammonia in conjunction with whole effluent toxicity (WET) testing. Effluent and ambient ammonia monitoring data from 2010-2015 are provided in **Attachments C and G**.

The applicable Massachusetts ammonia criteria are those found in the 1999 *Update of Ambient Water Quality Criteria for Ammonia*, as referenced in the EPA *National Recommended Water Quality Criteria 2002* (USEPA 2002 [EPA-822-R-02-047]), which were incorporated into the Massachusetts SWQS, 314 CMR 4.05(5)(e) by reference.

Acute criteria are a function of receiving water pH, and are calculated using two equations: one for waters where salmonids may be present; and another for waters where salmonids are not present[12]. Chronic criteria are calculated as a function of receiving water pH and temperature using two equations: one for waters where early life stages of fish are present and another for waters where early life stages of fish are absent. These criteria, as they relate to the Springfield WWTF's discharge, were calculated for both the summer (June 1 – October 31) and winter (November 1 – May 31) periods based on the presence of salmonids and early life stages of fish, and are presented in Table 3. These equations, from the 1999 *Update of Ambient Water Quality Criteria for Ammonia*, as referenced in the EPA *National Recommended Water Quality Criteria 2002* (USEPA 2002 [EPA-822-R-02-047]), are shown below.

$$CMC = \frac{0.275}{1 + 10^{7.204-pH}} + \frac{39.0}{1 + 10^{pH-7.204}}$$

$$CCC = \left(\frac{0.0577}{1 + 10^{7.688-pH}} + \frac{2.487}{1 + 10^{pH-7.688}} \right) * MIN(2.85, (1.45*10^{0.028(25-T)})$$

Using the median pH value for ambient water in WET tests, and assumptions for temperature, the criteria are therefore.

[12]Equations for calculating acute (CMC) and chronic (CCC) criteria are found in the 1999 *Update of Ambient Water Quality Criteria for Ammonia*, as referenced in the EPA *National Recommended Water Quality Criteria 2002* (USEPA 2002 [EPA-822-R-02-047]).

Acute Criteria (CMC) = $(0.275/1+10^{7.204-pH}) + (39.0/1+10^{pH-7.204})$

Chronic Criteria (CCC) = $\{(0.0577/1+10^{7.688-pH}) + (2.487/1+10^{pH-7.688})\} * MIN (2.85, 1.45*10^{0.028*(25-T)})$

Table 6 Freshwater Ammonia Criteria

Season	Warm (June 1-Oct 31)	Cold (Nov 1-May 31)
Receiving Water pH, SU	6.9	6.9
Water Temperature, C	25	10
Fish Early Life Stages	Present	Present
Salmonids	Present	Present
Acute Criteria (mg/l as N)	26.2	26.2
Chronic Criteria (mg/l as N)	2.1	6.1

Reasonable Potential Analysis

EPA ammonia criteria recommend using the 30Q10 flow conditions in the receiving water (the lowest 30-day average daily flow with a 10-year expected recurrence interval) when establishing effluent limits. The 30Q10 flow data was not immediately available, so the analysis was done with the 7Q10 flow data. The 7Q10 flow (lowest 7-day average daily flow with 10-year expected recurrence) will be lower than 30Q10, providing less dilution. Therefore, if there is no reasonable potential to exceed water quality standards in stream with 7Q10 flow, there is no reasonable potential with 30Q10.

EPA evaluated the available effluent and ambient ammonia data for winter and summer to determine whether reasonable potential exists for the discharge to cause or contribute to instream excursions above the applicable ammonia criteria under 7Q10 conditions with effluent flow equal to design flow. From 2010 – 2015, the ambient median ammonia concentration from WET testing during the summer period (April through October) was 0.110 mg/l and the 95th percentile ammonia concentration of the effluent was 8.50 mg/l. The ambient median concentration of ammonia detected during this time period in the winter (November through March) was 0.235 mg/l and the 95th percentile concentration detected in samples of the effluent was 11.2 mg/l (see **Attachments C** and **G**). Using the formula below, the projected downstream ammonia concentrations from April through October, and from November through March, were calculated.

$$Q_d C_d + Q_s C_s = Q_r C_r$$

Where:

C_r = resultant downstream ammonia concentration (mg/l)
Q_d = effluent flow (design flow = 67 MGD)
C_d= 95th percentile effluent ammonia concentration (mg/l)
Q_s = upstream 7Q10 flow (1574 MGD)
C_s = median instream ammonia concentration, upstream from the discharge (mg/l)
Q_r = 7Q10 flow just downstream from the discharge ($Q_r = Q_s + Q_d$= 1641 MGD)

$$C_r = (Q_s C_s + Q_d C_d) / Q_r$$

The projected downstream concentrations of ammonia in the summer and winter periods, during the less-diluted 7Q10 conditions, are 0.46 and 0.68 mg/l, respectively, which are below both the acute and chronic criteria. Therefore, reasonable potential does not exist for the discharge of ammonia from the Facility to cause or contribute to a violation of water quality standards under critical flow (7Q10 or 30Q10 flows in the receiving water and effluent flow equal to the Facility's design flow) conditions.

The monitoring requirements for Nitrogen species are being increased to once per week in the draft permit from once per month in the existing permit in order to adequately evaluate discharges (see Nitrogen discussion above) and to ensure that discharges of ammonia from the facility remain below the level at which the receiving water would be negatively impacted.

Whole Effluent Toxicity

National studies conducted by EPA have demonstrated that domestic sources contribute toxic constituents to POTWs. These constituents include metals, chlorinated solvents and aromatic hydrocarbons among others. The Region's current policy is to include toxicity testing requirements in all municipal permits, while Section 101(a)(3) of the CWA specifically prohibits the discharge of toxic pollutants in toxic amounts

Based on the reasonable potential for toxicity resulting from domestic and industrial contributions, the low level of dilution at the discharge location, water quality standards, and in accordance with EPA regulation and policy, the draft permit includes chronic and acute toxicity limitations and monitoring requirements. (See, e.g., "Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants", 50 Fed. Reg. 30,784 (July 24, 1985); see also, EPA's Technical Support Document for Water Quality-Based Toxics Control). EPA Region I has developed a toxicity control policy. The policy requires wastewater treatment facilities to perform toxicity bioassays on their effluents. The MassDEP requires bioassay toxicity testing for state certification.

Pursuant to EPA Region I Policy, and MassDEP's *Implementation Policy for the Control of Toxic Pollutants in Surface Waters* (February 1990), dischargers having a dilution factor greater than 20 and less than or equal to 100 are required to conduct acute toxicity testing four times per year. In accordance with the above guidance, the acute toxicity limit (LC50 of > 100%) in the existing permit has been maintained in the draft permit. Toxicity testing shall be conducted quarterly, during the months of March, June, September and December. Tests shall be conducted using the daphnid, Ceriodaphnia dubia, as the test organism and shall be performed in accordance with the Acute and Chronic WET test procedures included as **Attachments A** and **B**, respectively, to the draft permit.

The results of WET tests conducted from 2010 through 2015 indicate the facility had no violations of the WET permit limits. The results of WET tests that were conducted from 2010-2015 are provided in **Attachment C**.

EPA and MassDEP may use the results of the toxicity tests and chemical analyses conducted by the permittee, required by the permit, as well as national water quality criteria, state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants.

The draft permit adds requirements for the reporting of several selected parameters, including ammonia nitrogen (as N); hardness; alkalinity; and total recoverable aluminum, cadmium, copper, lead, nickel, and zinc, the results of which are determined through analyses conducted on samples of the 100 % effluent sample in conjunction with WET tests.

VIII. INDUSTRIAL PRETREATMENT PROGRAM

The permittee is required to administer a pretreatment program based on the authority granted under 40 C.F.R. 122.44(j), 40 C.F.R. Part 403 and Section 307 of the Act. The permittee's pretreatment program received EPA approval on December 9, 1998 and, as a result, appropriate pretreatment program requirements were incorporated into the previous permit, which were consistent with that approval and federal pretreatment regulations in effect when the permit was issued.

The Federal Pretreatment Regulations in 40 C.F.R. Part 403 were amended in October 1988, in July 1990, and again in October 2005. Those amendments established new requirements for implementation of pretreatment programs. Upon reissuance of this NPDES permit, the permittee is obligated to modify its pretreatment program to be consistent with current Federal Regulations. Those activities that the permittee must address include, but are not limited to, the following: (1) develop and enforce EPA approved specific effluent limits (technically-based local limits); (2) revise the local sewer-use ordinance or regulation, as appropriate, to be consistent with Federal Regulations; (3) develop an enforcement response plan; (4) implement a slug control evaluation program; (5) track significant noncompliance for industrial users; and (6) establish a definition of and track significant industrial users.

These requirements are necessary to ensure continued compliance with the POTW's NPDES permit and its sludge use or disposal practices.

In addition to the requirements described above, the draft permit requires the permittee to submit to EPA in writing, within 180 days of the permit's effective date, a description of proposed changes to permittee's pretreatment program deemed necessary to assure conformity with current federal pretreatment regulations. These requirements are included in the draft permit to ensure that the pretreatment program is consistent and up-to-date with all pretreatment requirements in effect. Lastly, the permittee must continue to submit, annually by March 31st, a pretreatment report detailing the activities of the program for the twelve-month period ending 60 days prior to the due date.

IX. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM

EPA regulations set forth a standard condition for "Proper Operation and Maintenance" that is included in all NPDES permits. See 40 C.F.R. § 122.41(e). This condition is specified in Part II.B.1 (General Conditions) of the draft permit and it requires the proper operation and maintenance of all wastewater treatment systems and related facilities installed or used to achieve permit conditions.

EPA regulations also specify a standard condition to be included in all NPDES permits that specifically imposes on permittees a “duty to mitigate.” See 40 C.F.R. § 122.41(d). This condition is specified in Part II.B.3 of the draft permit and it requires permittees to take all reasonable steps –

which in some cases may include operations and maintenance work - to minimize or prevent any discharge in violation of the permit which has the reasonable likelihood of adversely affecting human health or the environment.

Proper operation of collection systems is critical to prevent blockages and equipment failures that would cause overflows of the collection system (sanitary sewer overflows, or SSOs), and to limit the amount of non-wastewater flow entering the collection system (inflow and infiltration or I/I). I/I in a collection system can pose a significant environmental problem because it may displace wastewater flow and thereby cause, or contribute to causing, SSOs. Moreover, I/I could reduce the capacity and efficiency of the treatment plant and cause bypasses of secondary treatment. Therefore, reducing I/I will help to minimize any SSOs and maximize the flow receiving proper treatment at the treatment plant. MassDEP has stated that the inclusion in NPDES permits of I/I control conditions is a standard State Certification requirement under Section 401 of the CWA and 40 C.F.R. § 124.55(b). Therefore, specific permit conditions have been included in Part I.B. and I.C. of the draft permit. These requirements include mapping of the wastewater collection system, preparing and implementing a collection system operation and maintenance plan, reporting unauthorized discharges including SSOs, maintaining an adequate maintenance staff, performing preventative maintenance, controlling infiltration and inflow to the extent necessary to prevent SSOs and I/I-related effluent violations at the wastewater treatment plant, and maintaining alternate power where necessary. These requirements are intended to minimize the occurrence of permit violations that have a reasonable likelihood of adversely affecting human health or the environment.

Several of the requirements in the draft permit were not included in the existing permit, including collection system mapping, and preparation of a collection system operation and maintenance plan. EPA has determined that these additional requirements are necessary to ensure the proper operation and maintenance of the collection system and has included schedules for completing these requirements in the draft permit.

Because the municipalities of Agawam, East Longmeadow, Longmeadow, Ludlow, West Springfield, and Wilbraham each own and operate collection systems that discharge to the SRWWTF, these municipalities have been included as co-permittees for the specific permit requirements discussed in the paragraph above. The historical background and legal framework underlying this co-permittee approach is set forth in **Attachment I** to this Fact Sheet, EPA Region 1 NPDES Permitting Approach for Publicly Owned Treatment Works that Include Municipal Satellite Sewage Collection Systems.

X. COMBINED SEWER OVERFLOWS

Description

The wastewater collection system that conveys flow to the SRWWTF consists partially of combined sewers that convey both sanitary sewage and stormwater runoff during rain events. During wet weather, the combined flow exceeds the capacity of the interceptor sewers and the wastewater treatment plant, and a portion of the combined flow is discharged to the Connecticut, Chicopee, and Mill Rivers through combined sewer overflows (CSOs). CSOs have been identified as a significant source of pollution to the Connecticut and Chicopee Rivers. See *2003 Connecticut River Water Quality Assessment Report* (MassDEP 2003) and *Chicopee River Watershed 2003 Water Quality Assessment Report* (MassDEP, October 2008).

The system currently has 24 CSO outfalls which discharge to the Connecticut, Mill and Chicopee Rivers (see list in **Attachment D**). CSO 042, which is the CSO outfall located at the treatment plant, was inadvertently omitted from the list of outfalls from which discharges are authorized by the existing CSO permit. It is incorporated here for completeness.

Attachment D includes CSO discharge data for 2011-2016. In 2016, the system had combined overflows of 160 million gallons, as well as discharges of 6.7 million gallons of partially treated sewage from the treatment plant through a CSO-related bypass of secondary treatment.

SWSC CSO Permitting History

In 1995, EPA issued a separate permit for discharges from the CSOs (NPDES Permit No. MA010333 ("CSO permit")). The City of Springfield, which at that time owned and operated both the treatment plant and the collection system, had requested separate permits because different divisions within the City were responsible for the treatment plant and the collection system. In 1996, the Springfield Water and Sewer Commission was established and it subsequently took ownership of both the treatment plant and the collection system in the City of Springfield (while ownership of satellite collection systems remains with those municipalities). The CSO permit was re-issued on September 30, 2009. Because the City of Springfield no longer operates either the treatment plant or collection system, there is no longer a reason for separate permits. EPA's general practice is to integrate treatment plant and CSO authorization in a single permit, therefore this draft permit integrates authorization for CSO discharges into the current treatment plant permit and EPA is proposing to terminate the existing CSO permit, and incorporate the CSO requirements into this draft permit.

Regulatory Framework

CSOs are point sources subject to NPDES permit requirements for both water-quality based and technology-based requirements but are not subject to the secondary treatment regulations applicable to publicly owned treatment works in accordance with 40 C.F.R. §133.103(a). Section 301(b)(1)(C) of the Clean Water Act of 1977 mandated compliance with water quality standards by July 1, 1977. Technology-based permit limits must be established for best conventional pollutant control technology (BCT) and best available technology economically achievable (BAT) based on best professional judgment (BPJ) in accordance with Section 301(b) and Section 402(a) of the Water Quality Act Amendments of 1987 (WQA). The framework for compliance with Clean Water Act requirements for CSOs is set forth in EPA's National CSO Control Policy, 59 Fed. Reg. 18688 (1994). It sets the following objectives:

1) To ensure that if the CSO discharges occur, they are only as a result of wet weather;
2) To bring all wet weather CSO discharge points into compliance with the technology-based requirements of the CWA and applicable federal and state water quality standards; and
3) To minimize water quality, aquatic biota, and human health impacts from wet weather flows.

Among the elements established to achieve these objectives, the CSO Policy set forth the minimum BCT/BAT controls (i.e., technology-based limits) that represent the BPJ of the Agency on a

consistent, national basis. These are the Nine Minimum Controls ("NMCs") defined in the CSO Policy and set forth in Part I.B. of the draft permit: (1) proper operation and regular maintenance programs for the sewer system and the combined sewer overflows; (2) maximum use of the collection system for storage; (3) review and modification of the pretreatment programs to assure CSO impacts are minimized; (4) maximization of flow to the POTW for treatment; (5) prohibition of dry weather overflows; (6) control of solid and floatable materials in CSOs; (7) pollution prevention programs which focus on contaminant reduction activities; (8) public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts; and (9) monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

To reflect advances in technologies, the draft permit includes more specific public notification implementation level requirements to ensure that the public receives adequate notification of CSO occurrences and CSO impacts. The draft permit requires the permittee to develop a public notification plan to fulfil NMC #8. As part of this plan, notification shall be provided electronically to any interested party, and a posting made on the permittee's website, of a probable CSO activation within 24 hours of the initiation of any CSO discharge(s). Subsequently, within 24 hours of the termination of any CSO discharges(s), the permittee shall provide follow-up information on their website and in a follow-up electronic communication to any interested party. EPA invites comment on this new requirement during the public comment period with a goal of a workable public notification plan.

The Commission submitted documentation of its plan for implementing the Nine Minimum Controls, titled "Nine Minimum Control Measures Report" in 1997.

The CSO Policy also recommended that each community that has a combined sewer system develop and implement a long-term CSO control plan ("LTCP") that will ultimately result in compliance with the requirements of the CWA. The Commission submitted a Draft Long Term Control Plan Phase I Program in 2000, a revised draft LTCP in May 2012, and an Integrated Wastewater Plan (including an updated LTCP) in May 2014. The LTCP has not been completely approved. The SWSC is currently operating under federal administrative orders (latest being Administrative Order Docket No. 14-007 issued September 2014), requiring various projects to reduce or eliminate CSO discharges.

Permit Requirements

In accordance with the National CSO Policy, the draft permit contains the following conditions for the CSO discharges:

(i) Dry weather discharges from CSO outfalls are prohibited. Dry weather discharges must be immediately reported to EPA and MassDEP.

(ii) During wet weather, the discharges must not cause any exceedance of water quality standards.

(iii) The permittee shall meet the technology-based Nine Minimum Controls described above and shall comply with the implementation levels as set forth in Part I.B. of the draft permit.

(iv) The permittee shall review its entire NMC program and revise it as necessary. Documentation of this review and any resultant revisions made to the NMC program shall be submitted to EPA and MassDEP within 6 months of the effective date of the

permit. An annual report shall be provided by April 30th of each year which describes any subsequent revisions made to the NMC program and shall also include monitoring results from CSO discharges, and the status of CSO abatement projects.

XI. SLUDGE

Section 405(d) of the CWA requires that EPA develop technical standards regulating the use and disposal of sewage sludge. These regulations were signed on November 25, 1992, published in the Federal Register on February 19, 1993, and became effective on March 22, 1993. Domestic sludge that is land applied, disposed of in a surface disposal unit, or fired in a sewage sludge incinerator is subject to Part 503 technical standards. Part 503 regulations have a self-implementing provision, however, the CWA requires implementation through permits. Domestic sludge which is disposed of in municipal solid waste landfills are in compliance with Part 503 regulations provided the sludge meets the quality criteria of the landfill and the landfill meets the requirements of 40 CFR §258. Sludge generated at the SRWWTF is trucked off site for disposal in a municipal solid waste landfill.

The draft permit has been conditioned to ensure that sewage sludge use and disposal practices meet the CWA Section 405(d) Technical Standards. In addition, EPA-Region 1 has prepared a 72-page document entitled "EPA Region I NPDES Permit Sludge Compliance Guidance" for use by the permittee in determining their appropriate sludge conditions for their chosen method of sewage sludge use or disposal practices. This guidance document is available upon request from EPA Region 1 and may be found at: http://www.epa.gov/region1/npdes/permits/generic/sludgeguidance.pdf. The permittee is required to submit an annual report to EPA and MassDEP, by February 19th each year, containing the information specified in the Sludge Compliance Guidance document for their chosen method of sewage sludge use or disposal practices.

XII. ESSENTIAL FISH HABITAT

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C.§ 1801 et seq. (1998)), EPA is required to consult with National Marine Fisheries Service (NMFS) if EPA's action or proposed actions that it funds, permits, or undertakes, "may adversely impact any essential fish habitat." 16 U.S.C. § 1855(b). The Amendments broadly define "essential fish habitat" as waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. 16 U.S.C. § 1802(10). Adverse impact means any impact, which reduces the quality and/or quantity of EFH. 50 C.F.R. § 600.910(a). Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g. loss of prey, reduction in species' fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

Essential fish habitat is only designated for fish species for which Federal Fisheries Management Plans exist. 16 U.S.C. § 1855(b)(1)(A). The U.S. Department of Commerce approved EFH designations for New England on March 3, 1999. Anadromous Atlantic salmon (*Salmo salar*) is the only managed species that would occur in the area which encompasses the discharge sites. The Connecticut River has been designated as EFH for Atlantic salmon adults, juveniles, and eggs and larvae. Observations of Atlantic salmon as far upstream as the Holyoke Dam from 2000 through 2014

have ranged from a low of 24 in 2001 to a high of 132 in 2005.[13] The USFWS discontinued its Atlantic salmon restocking program in 2012, although the state of Connecticut still stocks salmon in its rivers. Wild Atlantic salmon were observed spawning in the Farmington River in Connecticut for the first time in more than a century in 2015.

EPA has determined that the draft permit has been conditioned in such a way to be protective of EFH for Atlantic salmon for the following reasons:

- This permit action is a reissuance of an existing NPDES permit (i.e., not a new source of pollutants);
- The facility withdraws no water from the Connecticut River, so there is no potential for mortality to EFH species life stages from impingement or entrainment;
- Effluent dilution is calculated to be 24:1 under 7Q10 low flow conditions, and is likely much higher during wet weather when discharges from CSOs may occur;
- The draft permit prohibits discharges from CSOs during dry weather;
- The draft permit prohibits the discharge of pollutants or combinations of pollutants in toxic amounts;
- The draft permit prohibits a violation of water quality standards;
- Effluent limits and requirements were developed to be protective of aquatic life;
- Acute and chronic toxicity tests will be performed quarterly; and
- Limits specifically protective of aquatic organisms have been established for total residual chlorine based on water quality criteria.

EPA believes that the limitations and conditions in the draft permit adequately protect aquatic life, including those with designated EFH in the receiving water, and therefore additional mitigation is not warranted. If adverse impacts to EFH are detected as a result of this permit action, or if new information is received that changes the basis for our conclusion, NMFS will be notified and an EFH consultation will be initiated.

As a federal agency charged with authorizing the discharge from this facility, EPA has submitted the draft permit and fact sheet, along with a letter under separate cover, to NMFS Habitat Division.

XIII. ENDANGERED SPECIES ACT

The Endangered Species Act (ESA) of 1973, as amended, imposes requirements on Federal agencies related to the potential effects of their actions on endangered or threatened species of fish, wildlife, or plants (listed species) and their designated "critical habitat." Section 7 of the ESA requires, in general, that Federal agencies insure that any actions they authorize, fund, or carry out, in the United States or upon the high seas, are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated "critical habitat" for those species. Federal agencies carry out their responsibilities under the ESA in consultation with, and assisted by, the Departments of Interior (DOI) and/or Commerce (DOC), depending on the species involved. The

[13] Historic fish counts at Holyoke Dam reported by the Connecticut River Coordinator available at https://www.fws.gov/r5crc/Fish/hist.html.

United States Fish & Wildlife Service (USFWS) of the DOI administers Section 7 consultations for freshwater species, while the National Marine Fisheries Service (NMFS) of DOC does so for marine species and anadromous fish.

As the federal agency charged with authorizing the discharges from this facility, EPA has reviewed available habitat information developed by the Services to see if one or more of the federal endangered or threatened species of fish, wildlife, or plants may be present within the influence of the discharge.

Based on the information available, EPA has determined that subadult and adult Atlantic sturgeon (*Acipenser brevirostrum*) are unlikely to be present in the action area of this discharge. However, because individuals have been observed on rare occasions in the Connecticut River upstream of the discharge, EPA has evaluated the potential impacts to this species in its assessment. Subadult and adult shortnose sturgeon (*Acipenser oxyrinchus*) are likely to be present in the action area of this discharge. Early life stages of shortnose sturgeon are unlikely to be present in the action area, however, EPA has considered the potential impacts to early life stages in its assessment as rare occurrences have been reported. In addition to the listed species described above, NMFS designated critical habitat for the Atlantic sturgeon in the Connecticut River from the mouth to the Holyoke Dam (New York Bight Unit 1 Connecticut River), effective September 18, 2017, which includes the action area. *See* 82 Fed. Reg. 39160 (August 17, 2017).

The dwarf wedgemussel (*Alasmidonta heterodon*) has been extirpated from most New England rivers but still has a viable population on the upper Connecticut River in Vermont and New Hampshire.[14] Dwarf wedgemussels have been observed in tributaries of the Connecticut River in Hampshire County, Massachusetts upstream of the action area. The Fort River, more than 16 miles upstream from the action area, currently supports a small population of dwarf wedgemussel. In addition, the Mill River in Northampton and Hatfield, MA sustains a patchily distributed population of dwarf wedgemussel.[15] The Mill River (and its tributaries) that support this population is not the same Mill River (in Springfield and Wilbraham) that receives discharges from the CSOs at issue. Dwarf wedgemussels rely on host fish species, such as tessellated darter, for dispersing larval stages (glochidia). McLain and Ross (2005) suggest that low host dispersal may result in patchy distributions of mussels over relatively small areas (such as those observed in the tributaries of the Connecticut River) and may inhibit natural recolonization and recovery of this species. Based on the

[14] Nedeau, E. 2009. Distribution, threats, and conservation of the dwarf wedgemussel (*Alasmidonta heterodon*) in the middle and northern macrosites of the Upper Connecticut River. Prepared for Vermont Fish and Wildlife Department and New Hampshire Fish and Game. April 2009.

U.S. Fish and Wildlife Service. 1993. Dwarf Wedgemussel (*Alasmidonta heterodon*) Recovery Plan. Region 5 USFWS. February 1993.

[15] U.S. Fish and Wildlife Service. 2013. Dwarf Wedgemussel (*Alasmidonta heterodon*) 5 Year Review: Summary and Evaluation. USFWS New England Field Office. April 2013.

McLain, D.C., M.R. Ross. 2005. Reproduction based on local patch size of *Alasmidonta heterodon* and dispersal by its darter host in the Mill River, Massachusetts, USA. J. N. Am. Benthol. Soc. 24:139-147.

known and expected distribution of dwarf wedgemussel, it is extremely unlikely that individuals are currently present in the action area. EPA has not considered this species further in this assessment. Having said that, the middle Connecticut River may support habitat suitable for dwarf wedgemussel should the population recover. The Draft Permit includes limitations and conditions designed to protect water quality in the Connecticut, Chicopee, and Mill Rivers, and, as such, will ensure protection of physical habitat suitable for the dwarf wedgemussel.

It is EPA's preliminary determination that any effects resulting from the operation of this facility and the discharge from the CSO outfalls, as governed by the permit action, on shortnose sturgeon, Atlantic sturgeon, or designated critical habitat for Atlantic sturgeon will be insignificant. The reasoning to support this position is set forth in a letter seeking concurrence from NMFS regarding this determination, included as **Attachment J** to this Fact Sheet. Based on this analysis EPA has determined that the reissuance of the Springfield WWTF NPDES permit is not likely to adversely affect any listed species or critical habitat under USFWS' or NMFS' jurisdiction. During the public comment period, EPA has provided a copy of the draft permit and Fact Sheet to both NMFS and USFWS.

XIV. MONITORING

The effluent monitoring requirements have been established to yield data representative of the discharge under authority of Section 308 (a) of the CWA in accordance with 40 CFR §§122.41 (j), 122.44 (l), and 122.48

As noted on page 6 of the permit, a routine sampling program shall be developed in which samples are taken at the same location, same time and same day(s) of every month. Any deviations from the routine sampling program shall be documented in correspondence appended to the applicable Discharge Monitoring Report (DMR) that is submitted to EPA.

The draft permit includes new provisions related to DMR submittals to EPA and the State. The draft permit requires that the permittee submit all monitoring data and other reports required by the permit to EPA using NetDMR. NetDMR is a national web-based tool for regulated CWA permittees to submit DMRs electronically via a secure Internet application to U.S. EPA through the Environmental Information Exchange Network. NetDMR allows participants to discontinue mailing in hard copy forms under 40 CFR § 122.41 and § 403.12. NetDMR is accessed from the following url: http://www.epa.gov/netdmr. Further information about NetDMR, including contacts for EPA Region 1, is provided on this website. The permittee is currently submitting its DMRs using NetDMR.

All reports required under the permit shall be submitted to EPA as an electronic attachment to the DMR, unless otherwise specified in the permit. However, permittees must continue to send hard copies of reports other than DMRs to MassDEP until further notice from MassDEP.

XV. STATE CERTIFICATION REQUIREMENTS

EPA may not issue a permit unless MassDEP certifies that the effluent limitations included in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate State Water Quality Standards or it is determined that this certification is waived. EPA has requested

permit certification by the State pursuant to 40 CFR §124.53 and expects the draft permit will be certified.

XVI. COMMENT PERIOD, HEARING REQUESTS, AND PROCEDURES FOR FINAL DECISIONS

All persons, including applicants, who believe any condition of the permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period to U.S.EPA, Office of Ecosystem Protection, Att: Meridith Timony, Municipal Permits Unit (OEP06-1), 5 Post Office Square, Suite 100, Boston, MA 02109-3912 or to timony.meridith@epa.gov and to Claire Golden, Massachusetts Department of Environmental Protection, 205B Lowell Street, Wilmington, MA 01887 or to claire.golden@state.ma.us . Any person prior to such date may submit a request in writing for a public hearing to consider the draft permit to EPA and the State Agency. Such requests shall state the nature of the issues to be raised in the hearing. A public hearing may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period, and after the public hearing, if held, the Regional Administrator will issue a final permit decision and forward a copy of the final decision to the applicant and to each person who has submitted written comments or requested notice.

XVII. EPA and MassDEP CONTACTS

Requests for additional information or questions concerning the draft permit may be addressed Monday through Friday, between the hours of 9:00 a.m. and 5:00 p.m., to:

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Lynne A. Hamjian, Acting Director
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