AUTHORIZATION TO DISCHARGE UNDER THE
RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Chapter 46-12 of the Rhode Island General Laws, as amended,

The City of Pawtucket, Pawtucket Water Supply Board
85 Branch Street
Pawtucket, RI 02860

is authorized to discharge from the following facility

Pawtucket Water Treatment Plant
87 Branch Street
Pawtucket, RI 02860

to receiving waters named

Blackstone River

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on _____,_____.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supersedes the permit issued on April 13, 2012.

This permit consists of nine (9) pages in Part I including effluent limitations, monitoring requirements, etc. and 10 pages in Part II including General Conditions.

Signed this_____day of _____, 2018.

DRAFT

_____
Angelo S. Liberti, P.E., Chief of Surface Water Protection
Office of Water Resources
Rhode Island Department of Environmental Management
Providence, Rhode Island

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of the permitand lasting through permit expiration, the permittee is authorized to discharge from outfall serial number(s) 002B (The discharge from the Lined Residuals Settling Basins to the Blackstone River). Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations Quantity - lbs./day		Concentration - specify units		Monitoring Requirement		
	Average Monthly	Maximum Daily	Average Monthly *(Minimum)	Average Weekly *(Average)	Maximum Daily *(Maximum)	Measurement Frequency	Sample Type
Flow	1.6 MGD	--- MGD				Continuous	Recorder
TSS	200 lb/day	300 lb/day	30 mg/l		50 mg/l	2/Month	Composite[1]
Turbidity			--- NTU		--- NTU	2/Month	Composite[1]
pH			(6.0 S.U.)		(9.0 S.U.)	2/Month	Grab
Total Residual Chlorine			0.53 mg/l[3]		0.91 mg/l[3]	2/Month	Grab
Total Aluminum			3.3 mg/l		28.7 mg/l	2/Month	Grab
Total Cadmium			--- ug/l		--- ug/l	1/Quarter	Grab
Total Lead			--- ug/l		--- ug/l	1/Quarter	Grab
Iron			--- ug/l		--- ug/l	1/Quarter	Grab
Total Phosphorus			--- mg/l		--- mg/l	1/Quarter	Grab

[1]All composite sampling must consist of a minimum of four (4) grabs spaced equally apart during the discharge from the Lined Residuals Sedimentation Basin network.

[2] Compliance with these limitations shall be determined by taking a minimum of one (1) grab sample. The grab sample must be analyzed for pH immediately (<15 minutes after sample collection). The maximum value to be reported is the highest individual measurement obtained during the monitoring period. The minimum value to be reported is the lowest individual measurement obtained during the monitoring period.

[3]The following methods may be used to analyze the grab samples: Preferred Methods: (1) DPD spectrophotometric, EPA No. 330.5 or Standard Methods (18th edition) No. 4500-Cl G; (2) DPD titrimetric (ferrous titrimetric), EPA No. 330.4 or Standard Methods (18th edition) No. 4500-Cl F; (3) Amperiometric titration , EPA No. 330.1 or Standard Methods (18th edition) No. 4500-Cl D or ASTM No. D1253-86(92); Alternate Methods: (4) Iodometric direct titration, EPA No. 330.3 or Standard Methods (18th edition) No. 4500-Cl B; (5) Iodometric back titration (either end point), EPA No. 330.2 or Standard Methods (18th edition), No. 4500-Cl C.

--- signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

* Values in parentheses ( ) are to be reported as Minimum/Maximum for the reporting period rather than Average Monthly/Maximum Daily.

**Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: Outfall 002B (The discharge from the Lined Residuals Settling Basins to the Blackstone River).

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginningon the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number(s) 003A (Emergency discharges of pretreated water originating from the Raw Water Pump Supply Line to the Blackstone River) Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirement		
	Quantity - lbs./day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly *(Minimum)	Average Weekly *(Average)	Maximum Daily *(Maximum)	Measurement Frequency	Sample Type
Flow	--- MGD	--- MGD				Continuous	Recorder
pH			(6.5 S.U.)		(9.0 S.U.)	1/Day[2]	4 Grabs[1]

[1] Compliance with these limitations shall be determined by taking a minimum of four (4) grab samples equally spaced over the sampling day. The grab samples must be analyzed for pH immediately (<15 minutes after sample collection). The maximum value to be reported is the highest individual measurement obtained during the monitoring period. The minimum value to be reported is the lowest individual measurement obtained during the monitoring period.

[2] Monitoring is required for each day that there is a discharge to the Blackstone River from the emergency raw water drain line.

--- signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

*Values in parentheses ( ) are to be reported as Minimum/Maximum for the reporting period rather than Average Monthly/Maximum Daily.

**Samples taken in compliance with the monitoring requirements specified above shall be taken at Outfall 003A (Emergency discharges of pretreated water originating from the Raw Water Pump Station to the Blackstone River).

3. The pH of the effluent discharges from outfall 003A must be in the range of 6.5-9.0 s.u.

4. The pH of the effluent discharges from outfall 002B must be in the range of 6.0-9.0 s.u.

5. The discharge shall not cause visible discoloration of the receiving waters.

6. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.

7. The turbidity of the receiving water downstream of the outfalls shall not exceed 10 NTU over natural background.

8. Solids, sludges, or biosolids removed in the course of treatment or control of wastewaters, shall be properly disposed of in compliance with applicable state laws, regulations, and permit requirements, and in a manner such as to prevent any pollutant from such materials from entering the waters of the state.

9. The permittee is required to maintain and implement a comprehensive Residuals Management Plan. The components of the Residuals Management Plan must include the following:

    a. Characterization of the form, quantity, and quality of the residuals;

    b. Determination of the appropriate regulatory requirements;

    c. Identification of feasible disposal options;

    d. Selection of appropriate residuals processing/treatment technologies and development of a residuals management strategy that meets the regulatory goals established for the water treatment facility;

    e. Development of best management practices which at a minimum include the following: a) an evaluation of the water treatment residuals storage capacity within each residuals treatment unit and identification of criteria which will serve as a trigger to determine when treatment units (i.e. lagoons, equalization basins, etc.) need to be pulled offline in order to avoid short circuiting and potential permit violations; b) development of procedures and periodic evaluation techniques necessary to gauge the remaining storage capacity of residuals treatment units; c) an evaluation of the need for coordination between WTP operators and personnel responsible for the operation of the WTP residuals treatment units; d) development of maintenance procedures to deactivate and prepare treatment units for sludge removal. These maintenance procedures must identify the appropriate steps necessary to temporarily lower the water level in the treatment unit, remove settled sludges, and restore the flow through the treatment unit in such a way that degradation of the receiving waters and permit violations will be prevented;

    f. A requirement that all critical activities associated with the operations and maintenance of the water treatment plant residuals treatment units be documented and copies of such documentation be kept on site at all times throughout the effective life of the permit;

    g. A requirement to review the Residuals Management Plan (at a minimum) on a yearly basis, which also requires the Plan to be updated as necessary. A copy of the Residuals Management Plan and records of the annual reviews must be available on site at all times throughout the effective life of the permit;

The DEM may notify the permittee at any time that the Residuals Management Plan is deficient or does not meet one or more of he minimum requirements of the permit. After such notification from the DEM, the permittee shall make changes to the Residuals Management Plan and shall submit to the DEM a written certification that the requested changes have been made. Unless otherwise provided by the DEM, the permittee shall have thirty (30) days after such notification to make the necessary changes. The permittee shall immediately amend the Residuals Management Plan if it proves to be ineffective in achieving the general objectives of controlling pollutants in discharges associated with the water treatment facility. Changes must be noted and then submitted to the DEM within thirty (30) days of amending the Residuals Management Plan. Amendments to the Residuals Management Plan may be reviewed by the DEM in the same manner as specified above.

10. This permit only authorizes the use of Aluminum-based chemicals and Superfloc as primary coagulation agents. The permittee must notify the DEM and request a permit modification prior to using any other coagulation agents including iron-based chemicals.

11. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

    a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

        (1) One hundred micrograms per liter (100 ug/l);

        (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitro-phenol; and one milligram per liter (1 mg/l) for antimony;

        (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or

        (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.

    b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

        (1) Five hundred micrograms per liter (500 ug/l);

        (2) One milligram per liter (1 mg/l) for antimony;

        (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or

        (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.

c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product any toxic pollutant which was not reported in the permit application.

12. This permit serves as the State's Water Quality Certificate for the discharges described herein.

B. DETECTION LIMITS

The permittee shall assure that all wastewater testing required by this permit is performed in conformance with the method detection limits listed below. In accordance with 40 CFR Part 136, EPA approved analysis techniques, quality assurance procedures and quality control procedures shall be followed for all reports required to be submitted under the RIPDES program. These procedures are described in "Methods for the Determination of Metals in Environmental Samples" (EPA/600/4-91/010) and "Methods for Chemical Analysis of Water and Wastes" (EPA/600/4-79/020).

The report entitled "Methods for the Determination of Metals in Environmental Samples" includes a test which must be performed in order to determine if matrix interferences are present, and a series of tests to enable reporting of sample results when interferences are identified. Each step of the series of tests becomes increasingly complex, concluding with the complete Method of Standard Additions analysis. The analysis need not continue once a result which meets the applicable quality control requirements has been obtained. Documentation of all steps conducted to identify and account for matrix interferences shall be documented and maintained onsite.

If, after conducting the complete Method of Standard Additions analysis, the laboratory is unable to determine a valid result, the laboratory shall report "could not be analyzed". Documentation supporting this claim shall be maintained onsite. If valid analytical results are repeatedly unobtainable, DEM may require that the permittee determine a method detection limit (MDL) for their effluent or sludge as outlined in 40 CFR Part 136, Appendix B.

When calculating sample averages for reporting on discharge monitoring reports (DMRs):

1. "could not be analyzed" data shall be excluded, and shall not be considered as failure to comply with the permit sampling requirements;

2. results reported as less than the MDL shall be reported as zero in accordance with the DEM's DMR Instructions, provided that all appropriate EPA approved methods were followed.

Therefore, all sample results shall be reported as: an actual value, "could not be analyzed", or zero. The effluent or sludge specific MDL must be calculated using the methods outlined in 40 CFR Part 136, Appendix B. Samples which have been diluted to ensure that the sample concentration will be within the linear dynamic range shall not be diluted to the extent that the analyte is not detected. If this should occur the analysis shall be repeated using a lower degree of dilution.

LIST OF TOXIC POLLUTANTS

The following list of toxic pollutants has been designated pursuant to Section 307(a)(1) of the Clean Water Act. The Method Detection Limits (MDLs) represent the required Rhode Island MDLs.

Volatiles - EPA Method 624		MDL ug/l (ppb)
1V	acrolein	10.0
2V	acrylonitrile	5.0
3V	benzene	1.0
5V	bromoform	1.0
6V	carbon tetrachloride	1.0
7V	chlorobenzene	1.0
8V	chlorodibromomethane	1.0
9V	chloroethane	1.0
10V	2-chloroethylvinyl ether	5.0
11V	chloroform	1.0
12V	dichlorobromomethane	1.0
14V	1,1-dichloroethane	1.0
15V	1,2-dichloroethane	1.0
16V	1,1-dichloroethylene	1.0
17V	1,2-dichloropropane	1.0
18V	1,3-dichloropropylene	1.0
19V	ethylbenzene	1.0
20V	methyl bromide	1.0
21V	methyl chloride	1.0
22V	methylene chloride	1.0
23V	1,1,2,2-tetrachloroethane	1.0
24V	tetrachloroethylene	1.0
25V	toluene	1.0
26V	1,2-trans-dichloroethylene	1.0
27V	1,1,1-trichloroethane	1.0
28V	1,1,2-trichloroethane	1.0
29V	trichloroethylene	1.0
31V	vinyl chloride	1.0

Acid Compounds - EPA Method 625		MDL ug/l (ppb)
1A	2-chlorophenol	1.0
2A	2,4-dichlorophenol	1.0
3A	2,4-dimethylphenol	1.0
4A	4,6-dinitro-o-cresol	1.0
5A	2,4-dinitrophenol	2.0
6A	2-nitrophenol	1.0
7A	4-nitrophenol	1.0
8A	p-chloro-m-cresol	2.0
9A	pentachlorophenol	1.0
10A	phenol	1.0
11A	2,4,6-trichlorophenol	1.0

Pesticides - EPA Method 608		MDL ug/l (ppb)
1P	aldrin	0.059
2P	alpha-BHC	0.058
3P	beta-BHC	0.043
4P	gamma-BHC	0.048
5P	delta-BHC	0.034
6P	chlordane	0.211
7P	4,4 ' -DDT	0.251
8P	4,4 ' -DDE	0.049
9P	4,4 ' -DDD	0.139
10P	dieldrin	0.082
11P	alpha-endosulfan	0.031
12P	beta-endosulfan	0.036
13P	endosulfan sulfate	0.109
14P	endrin	0.050
15P	endrin aldehyde	0.062
16P	heptachlor	0.029
17P	heptachlor epoxide	0.040

Pesticides - EPA Method 608		MDL ug/l (ppb)
18P	PCB-1242	0.289
19P	PCB-1254	0.298
20P	PCB-1221	0.723
21P	PCB-1232	0.387
22P	PCB-1248	0.283
23P	PCB-1260	0.222
24P	PCB-1016	0.494
25P	toxaphene	1.670

Base/Neutral - EPA Method 625		MDL ug/l (ppb)
1B	acenaphthene *	1.0
2B	acenaphthylene *	1.0
3B	anthracene *	1.0
4B	benzidine	4.0
5B	benzo(a)anthracene *	2.0
6B	benzo(a)pyrene *	2.0
7B	3,4-benzofluoranthene *	1.0
8B	benzo(ghi)perylene *	2.0
9B	benzo(k)fluoranthene *	2.0
10B	bis(2-chloroethoxy)methane	2.0
11B	bis(2-chloroethyl)ether	1.0
12B	bis(2-chloroisopropyl)ether	1.0
13B	bis(2-ethylhexyl)phthalate	1.0
14B	4-bromophenyl phenyl ether	1.0
15B	butylbenzyl phthalate	1.0
16B	2-chloronaphthalene	1.0
17B	4-chlorophenyl phenyl ether	1.0
18B	chrysene *	1.0
19B	dibenzo (a,h)anthracene *	2.0
20B	1,2-dichlorobenzene	1.0
21B	1,3-dichlorobenzene	1.0
22B	1,4-dichlorobenzene	1.0
23B	3,3 ' -dichlorobenzidine	2.0
24B	diethyl phthalate	1.0
25B	dimethyl phthalate	1.0
26B	di-n-butyl phthalate	1.0
27B	2,4-dinitrotoluene	2.0
28B	2,6-dinitrotoluene	2.0
29B	di-n-octyl phthalate	1.0
30B	1,2-diphenylhydrazine (as azobenzene)	1.0
31B	fluoranthene *	1.0
32B	fluorene *	1.0
33B	hexachlorobenzene	1.0
34B	hexachlorobutadiene	1.0
35B	hexachlorocyclopentadiene	2.0
36B	hexachloroethane	1.0
37B	indeno(1,2,3-cd)pyrene *	2.0
38B	isophorone	1.0
39B	naphthalene *	1.0
40B	nitrobenzene	1.0
41B	N-nitrosodimethylamine	1.0
42B	N-nitrosodi-n-propylamine	1.0
43B	N-nitrosodiphenylamine	1.0
44B	phenanthrene *	1.0
45B	pyrene *	1.0
46B	1,2,4-trichlorobenzene	1.0

OTHER TOXIC POLLUTANTS

	MDL ug/l (ppb)
Antimony, Total	3.0
Arsenic, Total	1.0
Beryllium, Total	0.2
Cadmium, Total	0.1
Chromium, Total	1.0
Chromium, Hexavalent	20.0
Copper, Total	1.0
Iron, Total	50
Lead, Total	1.0
Mercury, Total	0.2
Nickel, Total	1.0
Selenium, Total	2.0
Silver, Total	0.5
Thallium, Total	1.0
Zinc, Total	5.0
Asbestos	**
Cyanide, Total	10.0
Phosphorus, Total	10
Phenols, Total***	50.0
Aluminum, Total	5.0
TCDD	**
MTBE (Methyl Tert Butyl Ether)	1.0

* Polynuclear Aromatic Hydrocarbons
** No Rhode Island Department of Environmental Management (RIDEM) MDL

NOTE:

The MDL for a given analyte may vary with the type of sample. MDLs which are determined in reagent water may be lower than those determined in wastewater due to fewer matrix interferences. Wastewater is variable in composition and may therefore contain substances (interferents) that could affect MDLs for some analytes of interest. Variability in instrument performance can also lead to inconsistencies in determinations of MDLs.

To help verify the absence of matrix or chemical interference the analyst is required to complete specific quality control procedures. For the metals analyses listed above the analyst must withdraw from the sample two equal aliquots; to one aliquot add a known amount of analyte, and then dilute both to the same volume and analyze. The unspiked aliquot multiplied by the dilution factor should be compared to the original. Agreement of the results within 10% indicates the absence of interference. Comparison of the actual signal from the spiked aliquot to the expected response from the analyte in an aqueous standard should help confirm the finding from the dilution analysis. (Methods for Chemical Analysis of Water and Wastes EPA-600/4-79/020).

For Methods 624 and 625 the laboratory must on an ongoing basis, spike at least 5% of the samples from each sample site being monitored. For laboratories analyzing 1 to 20 samples per month, at least one spiked sample per month is required. The spike should be at the discharge permit limit or 1 to 5 times higher than the background concentration determined in Section 8.3.2, whichever concentration would be larger. (40 CFR Part 136 Appendix B Method 624 and 625 subparts 8.3.1 and 8.3.11).

C. MONITORING AND REPORTING

1. Monitoring

All monitoring required by this permit shall be done in accordance with sampling and analytical testing procedures specified in 40 CFR Part 136 unless other procedures are explicitly required in the permit.

2. Reporting

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

A. Submittal of DMRs Using NetDMR

The permittee shall continue to submit its monthly monitoring data in discharge monitoring reports (DMRs) to DEM 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 DEM.

B. Submittal of Reports as NetDMR Attachments

Unless otherwise specified in this permit, the permittee must submit electronic copies of documents in NetDMR that are directly related to the DMR. These include the following:

- DMR Cover Letters
- Below Detection Limit summary tables

C. Submittal of Reports in Hard Copy Form

The following notifications and reports shall be submitted as hard copy with a cover letter describing the submission. These reports shall be signed and dated originals submitted to DEM.

A. Written notifications required under Part II
B. Notice of unauthorized discharges

This information shall be submitted to DEM at the following address:

Rhode Island Department of Environmental Management
RIPDES Program
235 Promenade Street
Providence, Rhode Island 02908

D. Verbal Reports and Verbal Notifications

Any verbal reports or verbal notifications, if required in Parts I and/or II of this permit, shall be made to the DEM. This includes verbal reports and notifications which require reporting within 24 hours. (See Part II.(I)(5) General Requirements for 24-hour reporting) Verbal reports and verbal notifications shall be made to DEM at (401) 222-4700 or (401) 222-3070 at night.

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 PROMENADE STREET
PROVIDENCE, RHODE ISLAND 02908-5767

STATEMENT OF BASIS

RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PERMIT TO DISCHARGE TO WATERS OF THE STATE

RIPDES PERMIT NO.

RI0001589

NAME AND ADDRESS OF APPLICANT:

The City of Pawtucket, Pawtucket Water Supply Board
85 Branch Street
Pawtucket, RI 02860

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Pawtucket Water Treatment Plant
87 Branch Street
Pawtucket, RI 02860

RECEIVING WATER:

The Blackstone River (water body ID #: RI0001003R-01A)

CLASSIFICATION:

B1

I. Proposed Action, Type of Facility, and Discharge Location

The above-named applicant has applied to the Rhode Island Department of Environmental Management (DEM) for reissuance of a RIPDES permit to discharge into the designated receiving waters. The facility is involved in the production of potable water for "domestic" and "industrial" uses. The proposed permit authorizes the Pawtucket Water Treatment Plant to discharge from two outfalls: Outfall 003A and 002B. The Pawtucket Water Treatment Plant discharges filter backwash and settled solids to a pair of sedimentation lagoons designated as Lined Residuals Sedimentation Basins (LRSBs). The supernatant from those lagoons discharge to the Blackstone River via outfall 002B. The discharge from the LRSBs had previously discharged to Abbot Run Brook via outfall 002A, however the City relocated this discharge directly to the Blackstone River in order to make use of the higher dilution factor at the Blackstone River outfall location in accordance with DEM Consent Agreement No. RIA-383. This permit also authorizes the discharge of raw water, after pretreatment with caustic soda and potassium permanganate, from outfall 003A during emergency periods when the raw water pipeline needs to be drained for repairs. The plant also has an emergency overflow of potable water from its 5.0 million gallon storage tank. This overflow will only occur during emergency situations. Since this is a discharge of potable water and will only occur during emergency situations, the DEM has determined that it

does not need to be monitored under this permit and will be evaluated in accordance with the permit's "upset" provisions.

II. Description of Discharge

A quantitative description of the discharge in terms of significant effluent parameters based upon DMR data from January 2013 through December 2017 is shown in Attachment A.

III. Permit Limitations and Conditions

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

IV. Permit Basis and Explanation of Effluent Limitation Derivation

The Pawtucket Water Supply Board (PWSB) is a water supplier tat serves a population of approximately 100,000. The retail service area includes the Cities of Pawtucket and Central Falls and the Valley Falls section of the Town of Cumberland. In 2007 the PWSB purchased the distribution piping and water services located in Central Falls from the City of Central Falls. The PWSB now owns and operates the water system in the Cities of Pawtucket, Central Falls and the Valley Falls section of Cumberland. The water resources of the PWSB consist of both surface water and groundwater within the Abbott Run watershed, a tributary of the Blackstone River. The watershed lies within the Town of Cumberland in Rhode Island and the Towns of Wrentham, Plainville and Attleboro in Massachusetts. The PWSB owns about 10% of the Abbott Run watershed.

The previous RIPDES permit was issued on April 13, 2012. The permit expiration date was July 1, 2017, however because the City submitted a complete and timely permit reapplication on December 19, 2016, the permit was administratively continued in accordance with Rule 13 of the RIPDES Regulations. The City has reapplied for permit coverage to discharge from outfalls 003A, 002B, and 004A. (Outfall 004A is an emergency overflow called out on the facility's process diagram [see Attachment B] which does not have permit limits assigned to it due to a lack of reasonable potential to degrade the water body). Outfall 003A will be used on an emergency basis to drain the Raw Water supply line which connects the Raw Water Pump Station to the water treatment facility. Outfall 002B discharges from the Lined Residuals Sedimentation Basins to the Blackstone River. A more detailed description of the treatment process and sources of the permitted discharges can be found below.

Treatment Process

The water treatment process begins with pumping raw water into the plant from the Happy Hollow Reservoir in combination with water pumped from groundwater wells. The raw water is initially aerated prior to chemical addition in the raw water pumping station. At this location there is a 4-inch overflow line from the well water aerator that terminates approximately two feet above ground on the north face of the raw water pump station. Under emergency conditions this line may be forced to overflow to a rip-rap slope that then flows to a grassy slope. This overflow is identified as outfall #005A on the process diagram. However, since the discharge is via overland flow, it is not a point source and not authorized under this permit. The aeration process and this overflow occurs prior to any chemical addition and therefore does not require monitoring under this permit. After the raw water has been aerated, it is drawn into the Raw Water Pump Station. In the past, the facility pretreated the raw water with caustic soda and potassium permanganate. In emails from the facility to DEM sent on April 16, 2018 and July 25, 2018, the facility indicated that it does not currently use caustic soda and potassium permanganate at the facility, however it wanted to maintain the option to use those chemicals at the facility in the future.

Located after the raw water pump station is an Emergency Raw Water Drain line which discharges to the Blackstone River. This overflow point is designated as outfall 003A. The raw water is dosed seasonally with Powdered Activated Carbon (PAC) at the Raw Water Pump Station. After the Raw Water Pump Station, pretreated water enters the plant where it is dosed with polyaluminum chloride (in winter), and polymer (Superfloc). In the past, the facility also dosed pretreated water with lime, muriatic acid, and aluminum sulfate. In an email from the facility sent to DEM on April 12, 2018, the facility indicated that it did not currently use lime, muriatic acid, and aluminum sulfate at the facility, however, it wanted to maintain the option to use those chemicals at the facility in the future. In an email from the facility to DEM dated July 25, 2018, the facility indicated that it is no longer adding hypochlorite at the mixer. After the water is chemically treated it enters an up-flow clarifier where coagulation and flocculation is processed within the bottom 9-12 inches of non-buoyant media. Periodically the filters will require backwashing. Spent filter backwashing is an integral part of treatment plant operation. Filters are typically cleaned by flushing them with water in the reverse direction to normal flow. The water flow must have sufficient force to separate particles from filter media so a greater than normal flow is used. The resulting water, which carries particles flushed from the filters including raw water particles, and any remaining particles from the coagulation process is called waste or spent filter backwash water. The water treatment plant will first direct the spent filter backwash water to backwash equalization basins. Water from the equalization basins is then pumped to the two Lined Residuals Settling Basins (LRSB) located adjacent to the former 120 Mill Street water treatment plant. It is here that the spent filter backwash and other treatment plant residuals will undergo further solid liquid separation. The filter backwash water discharged from the LRSBs is routed to Outfall 002B where it is discharged to the Blackstone River.

As potable water exits the filtration units the water is treated with sodium hypochlorite prior to entering the Clearwells. Water leaving the clearwells is then dosed with and Calciquest prior to entering the distribution system as potable water. The facility had previously added hypochlorite prior to entering the distribution system, however it is not currently doing to, according to a July 25, 2018 email from the facility to DEM. When the potable water enters the distribution system a portion of the flow is stored in a 5.0 MG storage tank. In the case of an emergency this tank has an overflow which is directed to the Blackstone River. In addition, during emergency situations discharges from either the filter backwash equalization basin and overflows from the clearwell tank will enter the Blackstone at this same location – outfall #004A. Emergency discharges from these locations will be evaluated in accordance with the "Upset" provisions outlined in Part II.(n) of this permit. Attachment B includes a process flow diagram for this plant.

In accordance with the PWSB's current Residuals Management Plan, the LRSBs will need to becleaned periodically to remove accumulated settled solids. Under the current plan a licensed contractor performs the cleaning of the LRSBs. Contractors periodically bring in heavy equipment to rake the residuals from the settling basins and load this material onto trailers for transport to a licensed disposal or reuse facility.

Receiving Water

The water body segment that receives the discharge from the Pawtucket Water Treatment Plant is described as the Blackstone River. The water body identification # for this water body is RI0001003R-01A. This segment is located in Woonsocket, North Smithfield, Cumberland, Lincoln and Central Falls as is classified as a class B1 waterbody according to the Rhode Island Water Quality Regulation. These waters are designated for primary and secondary contact recreational activities and fish and wildlife habitat. They shall be suitable for compatible industrial processes and cooling, hydropower, aquacultural uses, navigation, and irrigation and other agricultural uses. These waters shall have good aesthetic value. Primary contact recreational activities may be impacted due to pathogens from approved wastewater discharges. However all Class B criteria must be met. Water body segment RI0001003R-01A of the Blackstone River is currently not meeting Rhode Island Water Quality Standards and is listed as impaired for Cadmium, Lead,

Non-Native Aquatic Plants, Dissolved Oxygen, Mercury in Fish Tissue, PCB in Fish Tissue, Total

Phosphorus, Enterococcus, Fecal Coliform, and Iron according to the State of Rhode Island 2016 303(d) List, List of Impaired Waters dated March 2018.

General Requirements

Development of RIPDES permit limitations is a multi-step process consisting of the following steps: identifying applicable technology-based limits; calculating allowable water-quality based discharge levels based on instream criteria, background data and available dilution; establishing Best Professional Judgement (BPJ) limits in accordance with Section 402 of the CWA; taking the most stringent of the water quality-based, technology-based, and BPJ-based limits as the new allowable discharge levels; comparing existing permit limits to the new allowable discharge levels and performing an antidegradation/antibacksliding analysis to determine the final permit limits; and evaluating the ability of the facility to meet the final permit limits.

Water quality criteria are comprised of numeric and narrative criteria. Numeric criteria are scientifically derived ambient concentrations developed by EPA or States for various pollutants of concern to protect human health and aquatic life. Narrative criteria are statements that describe the desired water quality goal. A technology-based limit is a numeric limit, which is determined by examining the capability of a treatment process to reduce or eliminate pollutants.

The requirements set forth in this permit are from the State's Water Quality Regulations and the State's Regulations for the Rhode Island Pollutant Discharge Elimination System, both filed pursuant to Chapter 46-12, as amended. RIDEM's primary authority over the permit comes from EPA's delegation of the program in September 1984 under the Federal Clean Water Act (CWA).

Dilution Factor

Appendix B of the Water Quality Regulations describes the flows used to determine compliance with the aquatic life criteria, specifying that the design flow to be utilized for aquatic life criteria shall not be exceeded at or above the lowest average seven consecutive day low flow with an average recurrence frequency of once in ten years (7Q10).

The DEMcalculated the 7Q10 at the location of outfall 002B based on a comparison of the drainage areas for the Blackstone River at the USGS Woonsocket Gauging Station # 01112500, the drainage area for the location of outfall 002B, and the 7Q10 flow at USGS Station # 01112500. Using the following steps site specific 7Q10 flow values were determined:

Step 1: Determine the Drainage Area of the watershed that is upstream of the gauge station:

$$DA_{Upstream\ of\ Gauge} = 416\ mi^2$$

Step 2: Find the 7Q10 flow for the gauge station:

$$7Q10_{Gauge} = 102.25\ ft^3/sec$$

Step 3: Determine drainage area of the watershed that is upstream from the point of discharge:

$$DA_{Upstream\ of\ discharge} = 473\ mi^2$$

Step 4: Calculate the equivalent 7Q10 flow using the following formula:

$$7Q10_{Outfall\ 002B} = (7Q10_{Gauge}/DA_{Upstream\ of\ gauge}) \times (DA_{Upstream\ of\ discharge})$$

$7Q10_{Outfall\ 002B}$ = 116 ft^3/sec (cfs)

Based on the site specific 7Q10 flow in the Blackstone River at the location of outfall 002B, a dilution factor was then determined:

$$DF = \frac{Q_D + Q_{dis.}}{Q_{dis.}}$$

Where: DF = Dilution Factor
Q_D = Design Flow (Receiving Water 7Q10 Flow)
$Q_{dis.}$ = Discharge Flow

Outfall 002B

The dilution factor was determined to be 47.86, based on a 7Q10 flow of 116 cfs and a maximum daily discharge flow of 2.476 cfs (1.6 MGD).

Water Quality Based Permit Limitations

The allowable discharge limits were calculated as follows:

a) Background concentration unknown.

$$Limit_1 = (DF) * (Criteria) * (80\%)$$

Where: DF = acute or chronic dilution factor, as appropriate

b) Using available background concentration data[1].

$$Limit_1 = (DF) * (Criteria) * 90\% - (Background) * (DF - 1)$$

Where: DF = acute or chronic dilution factor, as appropriate

Based on the above dilution factors and the freshwater aquatic life and non-class A human health criteria, from the Rhode Island Water Quality Regulations, allowable discharge concentrations were established using 80% allocation when no background data was available and 90% allocation when background data was available. Background for pH data for the Blackstone River was obtained from DEM's Ambient River Monitoring Program gathered in 2013, from United States Geological Survey data gathered during 2009-2016, and from URI Watershed Watch data gathered in 2008. The hardness data used to calculate permit limits was based upon data for the Blackstone River which was used to establish a relationship established between river flow and hardness. The equation used to calculate hardness based upon streamflow was:

$$H = 168.5 * Q^{0.257}$$

Where H = hardness in mg/L as $CaCO_3$ and

[1]DEM did not use water quality data for metals to perform its permit limits calculations for metals due to the water body being impaired for metals upstream. Rather, metals values used were "NA".

Q = flow in CFS

The formulas and data noted above were applied with the following exceptions:

One exception to the above methodology was for those pollutants, based on the acute and chronic dilution factors, which had a higher allowable chronic limit than allowable acute limit. For this situation, both the "Monthly Average" and "Daily Maximum" limits were set at the allowable acute limit.

A second exception was for the calculation of the total residual chlorine limit. The limits for total residual chlorine (TRC) were established in accordance with the RIDEM Effluent Disinfection

Policy. The "Monthly Average" and "Daily Maximum" were based on a 100% allocation, a zero background concentration, and a dilution factor of 47.86. The 100% allocation factor for TRC was used due to the non-conservative nature of chlorine and the improbability of the receiving water having a detectable background TRC concentration.

A third exception to this methodology would be for pollutants that had a previous water quality based monthly average limit in the 2012 RIPDES permit. For the relaxation of the monthly average limits from the previous permit would be restricted in accordance with the antibacksliding provisions of the Clean Water Act and the Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations.

Reference Attachment C for calculations of allowable water quality-based limits based on Freshwater Aquatic Life and Human Health Criteria.

Provided below is a brief introduction to Antibacksliding and Antidegradation; as well as a discussion on how the two policies were used to calculate water quality based limits.

Antibacksliding/Antidegradation

Antibacksliding

Antibacksliding restricts the level of relaxation of water quality based limits from the previous permit. Section 303(d)(4) of the Clean Water Act addresses antibacksliding as the following:

Section 303(d)(4)

A) Standards not attained - For receiving waters that have not attained the applicable water quality standards, limits based on a TMDL or WLA can only be revised if the water quality standards will be met. This may be done by (i) determining that the cumulative effect of all such revised limits would assure the attainment of such water quality standards; or (ii) removing the designated use which is not being attained in accordance with regulations under Section 303.

B) Standards attained - For receiving waters achieving or exceeding applicable water quality standards, limits can be relaxed if the revision is consistent with the State's Antidegradation Policy.

Therefore, in order to determine whether backsliding is permissible, the first question that must be answered is whether or not the receiving water is attaining the water quality standard. The Office has determined the most appropriate evaluation of existing water quality is by calculating the pollutant levels, which would result after consideration of all currently valid RIPDES permit limits or historic discharge data (whichever is greater), background data (when available), and any new information (i.e.: dilution factors).

Antidegradation

The RIDEM's "Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations July 2006" (the Policy) establishes four tiers of water quality protection:

> **Tier 1**. In all surface waters, existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.
>
> **Tier 2**. In waters where the existing water quality exceeds levels necessary to support propagation of fish and wildlife, and recreation in and on the water, that quality shall be maintained and protected, except for insignificant changes in water quality as determined by the Director and in accordance with the Antidegradation Implementation Policy, as amended. In addition, the Director may allow significant degradation which is determined to be necessary to achieve important economic or social benefits to the State in accordance with the Antidegradation Implementation Policy, as amended.
>
> **Tier 2½**. Where high quality waters constitute a Special Resource Protection Water SRPW[2], there shall be no measurable degradation of the existing water quality necessary to protect the characteristic(s) which cause the waterbody to be designated a SRPW. Notwithstanding that all public drinking water supplies are SRPWs, public drinking water suppliers may undertake temporary and short-term activities within the boundary perimeter of a public drinking water supply impoundment for essential maintenance or to address emergency conditions in order to prevent adverse effect on public health or safety. These activities must comply with the requirements set forth in Tier 1 and Tier 2.
>
> **Tier 3**. Where high quality waters constitute an Outstanding Natural Resource ONRWs[3], that water quality shall be maintained and protected. The State may allow some limited activities that result in temporary and short-term changes in the water quality of an ONRW. Such activities must not permanently degrade water quality or result in water quality lower than necessary to protect the existing uses in the ONRW.

The formulas previously presented ensure that permit limitations are based upon water quality criteria and methodologies established to ensure that all designated uses will be met.

In terms of the applicability of Tier 2 of the Policy, a water body is assessed as being high quality on a parameter-by-parameter basis. In accordance with Part II of the Policy, "Antidegradation applies to all new or increased projects or activities which may lower water quality or affect existing water uses, including but not limited to all 401 Water Quality Certification reviews and any new, reissued, or modified RIPDES permits." Part VI.A of the Policy indicates that it is not applicable to activities which result in insignificant (i.e.: short-term minor) changes in water quality and that significant changes in water quality will only be allowed if it is necessary to accommodate important economic and social development in the area in which the receiving waters are located (important benefits demonstration). Part VI.B.4 of the Policy states that: "Theoretically, any new or increased discharge or activity could lower existing water quality and thus require the important benefits demonstration. However, RIDEM will: 1) evaluate applications on a case-by-case basis, using BPJ and all pertinent and available facts, including scientific and technical data and calculations as provided by the applicant; and 2) determine whether the incremental loss is

[2]SRPWs are surface waters identified by the Director as having significant recreational or ecological uses.

[3]ONRWs are a special subset of high quality water bodies, identified by the State as having significant recreational or ecological water uses.

significant enough to require the important benefits demonstration described below. [If not then as a general rule RIDEM will allocate no more than 20%.] Some of the considerations which will be made to determine if an impact is significant in each site-specific decision are: 1) percent change in water quality parameter value and their temporal distribution; 2) quality and value of the resource; 3) cumulative impact of discharges and activities on water quality to-date; 4) measurability of the change; 5) visibility of the change; 6) impact on fish and wildlife habitat; and 7) impact on potential and existing uses. As a general guide, any discharge or activity which consumes greater than 20% of the remaining assimilative capacity (See Section VI.B.2) will be considered a significant impact and will be required to demonstrate important economic or social benefits to justify the activity (See Section VI.C. below). However, on a case-by-case basis, any proposed percent consumption of the remaining assimilative capacity may be deemed significant and invoke full requirements to demonstrate important economic or social benefits."

In terms of a RIPDES permit, an increased discharge is defined as an increase in any limitation, which would result in an increased mass loading to a receiving water. The baseline for this comparison would be the monthly average mass loading established by the previous permit. It would be inappropriate to use the daily maximum mass loading since the Policy is not applicable to short-term changes in water quality.

For the purposes of ensuring that the revised limit is consistent with the requirements of antidegradation, existing water quality must be defined. As explained earlier, RIDEM evaluates existing water quality by determining the pollutant levels which would result under the design conditions appropriate for the particular criteria (i.e., background water quality, when available and/or appropriate; non-point source inputs; and existing RIPDES permit limitations or recent historical discharge data, whichever is higher). In general, available data would be used to make this determination.

$$C_p = \frac{(DF - 1) * C_b + (1 * C_d)}{DF}$$

Using the above-mentioned criteria, the present instream water quality C_p is defined as:

where: C_b = background concentration[4]
C_d = discharge data[5]

DF = dilution factor

If the waterbody is a high quality water for the pollutant in question ($C_p < C_{criteria}$), then the discharge requires an evaluation under Tier 2 protection. If the waterbody is not determined to be high quality for that parameter, then antibacksliding will allow an increased permit limit only if it can be assured that water quality standards would be attained. Therefore, the permit limit would be calculated to comply with Tier 1 protection, using the procedures noted previously (i.e., $Limit_1$).

Assuming the receiving water has been designated as a high quality waterbody for the parameter under investigation, the next step is to determine whether the new or increased discharge is permissible and if so whether an important benefits demonstration is required. As explained above, for existing discharges RIDEM shall follow the general rule of allocating no more than 20% of the remaining assimilative capacity without the need to complete this demonstration (assuming

[4]Data collected at a location that is unimpacted by significant point source discharges.

[5]Discharge data refers to the maximum of the permit limit or the historic discharge level. The historic discharge level is determined by calculating the upper 95th percent confidence interval for the monthly average reported data for the past five (5) years. For specific cases, changes in treatment efficiency or pretreatment limitations may support the use of an alternative period of time.

the receiving water is not an SRPW or ONRW). On a case-by-case basis, the RIDEM may limit the allocation or determine that any incremental loss or impact to the receiving water is significant enough to require a detailed important benefits demonstration.

Water Quality Based Limits - Considering Antibacksliding and Antidegradation

The draft permit is being reissued with limitations as stringent as or more stringent than those in the existing permit with no change to the outfall location. The Antibacksliding Provision of the Clean Water Act (found at Section 402(o) and repeated at 40 CFR 122.44(l)) prohibits reissuing a permit containing less stringent effluent limits than the comparable limits from the previous permit. Since none of the potential permit limits, both concentration and mass loadings, are less stringent than the limits in the previous permit, antibacksliding and antidegradation regulations are being met.

Attachment C includes a summary comparison of the allowable limits vs. the DMR (Discharge Monitoring Report) data.

Total Aluminum

The previous permit issued on April 13, 2012 included permit limits for Total Aluminum at outfall 002B due to the fact that the water treatment plant utilizes poly aluminum chloride and may utilize aluminum sulfate as the primary coagulation agents in the water treatment process. Total Aluminum discharge monitoring data reported by the City for outfall 002B during the period January 2013 to December 2017 yield a mean monthly average total aluminum concentration of 452.1 ug/l and a mean daily maximum total aluminum concentration of 668.1 ug/l. Applicable permit limitations for outfall 002B are 2165 ug/l monthly average and 30720 ug/l daily maximum. Applicable permit limitations for outfall 002B were maintained at 3.33 mg/l monthly average and 28.7 mg/l daily maximum. Although there is no reasonable potential for the discharge from outfall 002B to violate applicable permit limitations at current aluminum dosage rates, monitoring and permit limits for Total Aluminum have been applied at outfall 002B to ensure that the plant does not cause water quality impacts in the future. The emergency discharge of pretreated raw water from Outfall 003A does not demonstrate reasonable potential to exceed applicable permit limitations for Total Aluminum based on the fact that aluminum sulfate and/or poly aluminum chloride are not added at this point in the water treatment process.

Total Residual Chlorine

When calculating TRC limits 100% allocation of TRC was used due to the fact that chlorine is not expected to be found in ambient water and it is a non-conservative pollutant. Therefore, the permit limits were calculated using the following equation:

$$Limit = (DF)^* (Criteria)^*(100\%)$$

Based on the above-mentioned equation, limits for chlorine were calculated as follows for Outfall 002B: Monthly Average Limit (mg/l) = 0.53, and Maximum Daily Limit (mg/l) = 0.91. Permit limitations and monitoring is continuing to be required at outfall 002B to ensure that water quality will be protected.

Water Treatment Chemicals

As previously indicated the water treatment plant utilizes a series of chemical additives to aid in the production of potable water. The following additives have been identified either as part of the facility's current treatment process or as having been used by the facility under the 2012 permit and that facility wants to retain the option to resume using in the future: Powdered activated carbon, caustic soda, potassium permanganate, sodium hypochlorite, hydrated lime, muriatic acid, poly-aluminum

chloride, aluminum sulfate, superfloc-emulsion polyacrylamide polymer, hydrofluosilicic acid, ammonium sulfate, calciquest liquid. Note that according to a July 25, 2018 email from the facility to DEM, powdered activated carbon (PAC) is used at dosages ranging from 1 mg/L to 4 mg/L depending on the amount of Geosmin and MIB (Methyl-Isoborneol), (two taste- and odor- causing chemicals) in the source water; PAC is not added from November through March.

The facility has in the past used Caustic soda (at a dosage rate of 5.0 mg/L) to adjust the pH of the incoming water and potassium permanganate (at a dosage rate of 0.5 mg/L) as an alternate pre-oxidant for disinfection by-product control. The effluent limitations for pH have been established to control the impacts associated with the addition of caustic soda. Limits associated with potassium permanganate have not been applied based on the fact that potassium permanganate, when it was in use at the facility, was dosed to incoming raw water at a concentration of 0.5 mg/l. In the 2012 permit, it was stated that this concentration prior to being diluted by the incoming raw water flow of 13.83 MGD is below the aquatic toxicity data listed on the MSDS for potassium permanganate. The aquatic toxicity concentrations listed on the MSDS for potassium permanganate are as follows: Rainbow trout, 96 hour LC50 = 1.8 mg/l and Bluegill sunfish, 96 hour LC50 = 2.3 mg/l. Prior to the coagulation, flocculation, and filtration process incoming water is dosed with 40.0 mg/l poly-aluminum chloride, and 0.05 mg/l Superfloc polymer. Effluent limitations for total residual chlorine, total aluminum, and pH have been established to control the impacts associated with hypochlorite, lime, muriatic acid, poly-aluminum chloride, and aluminum sulfate and therefore additional restrictions have not been included in the permit for these additives. In a submittal dated February 16, 2006 additional information was provided regarding the following chemical additives: Hydrofluosilicic acid, Superfloc polymer, Ammonium Sulfate, and Calciquest. SuperFloc, a flocculant, is added to the pretreated raw water prior to entering the filtration/ clarification stage of the treatment process. SuperFloc is used at a dosage concentration of 0.05 mg/L. The MSDS provided lists toxic concentrations for this chemical at > 100 mg/l. Due to the fact that the dosage concentration is injected well below the level at which toxicity has been demonstrated and given the fact that upon injection the chemical concentration will be diluted even further, the concentration of SuperFloc used at the plant will not have an adverse impact on the receiving water. Calciquest will be added to the distribution system water and may be present in emergency overflows. Calciquest is dosed at a concentration of 1.1 mg/L. The MSDS provided lists toxic concentrations for this chemical at 3200 and 6500 mg/l. Due to the fact that the dosage concentration is injected well below the level at which toxicity has been demonstrated and given the fact that upon injection the chemical concentration will be diluted even further, the concentration of Calciquest used at the plant will not have an adverse impact on the receiving water if discharged. Although the facility no longer uses Ammonium sulfate to control disinfection byproducts, and does not expect to do so in the future, it will retain the option to resume adding ammonium sulfate in the future, if the need arises. Ammonium sulfate will be added to the distribution system water and may be present in emergency overflows. In the past, ammonium sulfate was dosed at a concentration of 0.5 mg/L. The MSDS provided lists acute toxic concentrations for this chemical ranging from 40-1500 mg/l. Due to the fact that the dosage concentration is injected well below the level at which toxicity has been demonstrated and given the fact that upon injection the chemical concentration will be diluted even further, the concentration of Ammonium sulfate used at the plant will not have an adverse impact on the receiving water if discharged. According to a July 25, 2018 email from the facility, hydrofluosilicic acid is added to the treated water prior to entering the clearwell and is used at a dosage concentration of 0.7 mg/l. The MSDS provided lists toxic concentrations for this chemical at ≥ 10.5 mg/l. Due to the fact that the dosage concentration is injected well below the level at which toxicity has been demonstrated and given the fact that upon injection the chemical concentration will be diluted even further, the receiving water.

Receiving Water Body Impairments

According to the 2016 303(d) List of Impaired Waters water body segment # RI0001003R-01A of the Blackstone River is currently impaired for Cadmium, Lead, Non-Native Aquatic Plants, Dissolved Oxygen, Mercury in Fish Tissue, PCB in Fish Tissue, Total Phosphorus, Enterococcus, Fecal

Coliform, Iron. However, there is no reasonable potential for the proposed discharge from outfall 002B to violate the potential permit limitations calculated for Lead (monthly average limit = 49.97 ug/l and daily maximum limit = 1282.32ug/l) and Cadmium (monthly average limit = 6.17 ug/l and daily maximum limit = 40.09 ug/l). In addition, the discharge from outfall 002B is not suspected to be a contributor of the other pollutants responsible for the remaining impairments in the Blackstone River. As a result, permit limitations were not applied to outfall 002B in relation to the current water body impairments associated with the Blackstone River. However, monitoring for Outfall 002B has been added to the permit for Lead, Cadmium, Iron, and Total Phosphorus due to the upstream water body impairments which exist for these parameters. Outfall 003A has not been assigned monitoring requirements for these pollutants because these pollutants are not believed to be present in this discharge.

Residuals Management Requirements

Water treatment plant residuals form when suspended solids in the raw water react with chemicals added in the treatment process and from the addition of other process control chemicals such as lime and polymer. Some potable water treatment processes generate residuals that are relatively easy to process and dispose of. For example, leaves, limbs, logs, plastic bottles, and other large floating debris separated from water during the initial screening process can be disposed of at conventional solid waste landfills. However, most other treatment processes produce more complex residual waste streams that may require advanced processing and disposal methods to protect human health and the environment.

The primary residuals produced at the water treatment facility are sludges (i.e. water that contains suspended solids from the source water and the reaction products of chemicals added in the treatment process). The water treatment facility utilizes or intends to retain the option to utilize caustic soda, potassium permanganate, hypochlorite, lime, muriatic acid, poly-aluminum chloride, aluminum sulfate, powered activated carbon, and a polymer prior to beginning the flocculation, sedimentation, and filtration phases of the treatment process. For a typical coagulation, flocculation, and filtration system the typical disposal options for these residuals consist of the following: landfilling, directly discharging to the sanitary sewer under authorization of the local industrial pretreatment program, or by shipping the residuals to a facility which possesses an effective Solid Waste Beneficial Use Determination (BUD) issued by the DEM Office of Waste Management. This permit requires that a Residuals Management Plan be maintained and implemented at the water treatment facility in order to ensure that this waste stream is properly managed. The specific Residuals Management Plan requirements can be found in the permit.

On April 5, 2018, the facility provided DEM with a copy of the latest version of its Residuals Management Plan (RMP) dated May 3, 2017.

Total Suspended Solids

The previous permit issued on April 13, 2012 included monthly average limits for TSS of 66 lb/day and maximum daily limits of 110 lb/day. The previous permit also established concentration based limits for TSS at 30 mg/l monthly average and 50 mg/l daily maximum based on Best Professional

Judgement (BPJ) for the treatment capabilities of wastewater treatment systems currently used for the treatment of potable water treatment waste streams throughout the country. The DEM has determined that the use of the Best Available Treatment technologies are not cost prohibitive and that by using the Best Available Treatment technologies such as a settling lagoon or other device(s) whereby comparable control of suspended solids is possible, the 30 mg/l and 50 mg/l TSS limitations can be achieved. According to the U.S. Environmental Protection Agency Filter Backwash Recycling Rule Technical Guidance Manual, there are several options available for solids separation from spent filter backwash water and other residual waste streams. Typical treatment technologies that are available to meet these limits are settling lagoons, sand drying

beds, mechanical dewatering systems such as tube and plate settlers and centrifuge equipment. The previous concentration based TSS limits have been carried forward for outfall 002B. Mass based limits for outfall 002B have been carried forward from the 2012 permit because it was determined that the monthly average flow limit originally established in the 2006 permit which is the basis for the TSS loading limitations was underestimated during the design of the new plant. Since that time the City has determined that 1.6 MGD is the monthly average flow limit that it can meet consistently. As a result, when the monthly average and daily maximum TSS loading limits were recalculated during the development of the 2012 permit using the concentration based limits and the new 1.6 MGD monthly average flow limit, the monthly average and daily maximum loading limits generated were 400.32 lb/day and 667.2 lb/day respectively. Because the City never complied with the 66 lb/day monthly average and 110 lb/day daily maximum permit limitations the DEM is not required to hold the City to these limits. However, in order to comply with the Antibacksliding Provision of the Clean Water Act the DEM is required toassign permit limitations at least as stringent as those included in the permit issued on September 30, 1987. As a result the TSS loading limits applied in the permit for outfalls 002B is the same as those included in the 1987 and 2012 permits (200 lb/day monthly average and 300 lb/day daily maximum).

Turbidity

Turbidity monitoring requirements have been included in this permit in order to establish a database of NTU data that can be used to determine compliance with water quality criteria in the event that there are instream exceedences observed or suspected downstream of outfall 002B. The turbidity of the Blackstone River shall not exceed 10 NTU over natural background during discharges from outfall 002B.

pH

The effluent limitations for pH have been established in accordance with the Rhode Island Water Quality Regulations Table 1.8.D.(2) Class Specific Criteria –Class A & B1 Fresh Waters. Table 1.8.D.(2) specifies that the pH must be in the range of 6.5-9.0 s.u. or as naturally occurs for water bodies with B1 classifications. Given the fact that significant dilution is available for the discharge to the Blackstone River, in conjunction with the reissuance of the 2012 permit, the DEM conducted a dilution calculation to determine whether or not a modification to the numeric limitations is justified for outfall 002B. The dilution calculation assumed that the pH of the Blackstone River was 6.8 s.u. while the discharge from outfall 002B was assumed to be 6.0 s.u. The value of 6.0 s.u. selected to represent the pH of the discharge from outfall 002B was based on the fact that from November 2006 thru November 2011 the average minimum pH value reported by the PWSB for outfall 002A was 6.3 s.u. The pH value assumed for the Blackstone River was based on USGS data collected from October 1997 to September 1998 which listed pH levels as follows: Nov. 7.2 s.u., March 6.8 s.u., June 6.8 s.u., and August 7.3 s.u.. Using this pH information, the 7Q10 flow of the Blackstone River and the permitted monthly average flow value of 1.6 MGD, the pH value of the combined discharge was calculated to be 6.78 s.u., only 0.02 s.u. below the documented minimum pH of the Blackstone River. In conjunction with the development of the 2018 permit, DEM noted that the 2012 pH calculation was conservative, given (1) that the average monthly minimum pH discharged from outfall 002B during the time period January 2013 to December 2017 was 6.37 s.u. – higher than the 6.3 value used in the 2012 calculation and given that the average value for the pH for the receiving water was calculated to be 7.25 s.u. based on data from 2008-2016, which is higher than the 6.78 s.u. value used in the 2012 calculation. Even after repeating the calculation of the average pH data in the receiving water using only 2009-2016 USGS data extracted from the 2008-2016 data set, the average pH was still calculated to be 7.23 s.u., well above the 6.8 s.u. minimum pH documented for the Blackstone River used in the 2012 calculation. Given the fact that the discharge from outfall 002B at a pH of 6.0 s.u. will have minimal effect on the pH of the Blackstone River the numeric limitations of 6.5-9.0 s.u. have been maintained at 6.0 – 9.0 s.u.

Storm Water

This permit does not authorize the discharge of stormwater from the facility. The Pawtucket WTP falls under Standard Industrial Classification (SIC) 4941 – Water Supply, which applies to establishments primarily engaged in distributing water for sale for domestic, commercial, and industrial use. Based on the RIPDES Program's review it has been determined that facilities that fall under SIC code 4941 are not required to obtain coverage under the NPDES Storm Water Multi-Sector General Permit and therefore the facility is not required to apply.

Selection of Final Permit Limits

The effluent monitoring requirements have been specified in accordance with RIPDES regulations as well as 40 CFR 122.41(j), 122.44(l), and 122.48 to yield data representative of the discharge. The Office has determined that all permit limitations are consistent with the Rhode Island Antidegradation Policy.

The remaining general and specific conditions of the permit are based on the RIPDES regulations as well as 40 CFR Parts 122 through 125 and consist primarily of management requirements common to all permits.

V. Comment Period, Hearing Requests, and Procedures for Final Decisions

All persons, including applicants, who believe any condition of the draft 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 the Rhode Island Department of Environmental Management, Office of Water Resources, 235 Promenade Street, Providence, Rhode Island, 02908-5767. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to the Rhode Island Department of Environmental Management. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty (30) days public notice whenever the Director finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Director will respond to all significant comments and make these responses available to the public at DEM's Providence Office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Director will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within thirty (30) days following the notice of the final permit decision any interested person may submit a request for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of Rule 49 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

V. **DEM Contact**

Additional information concerning the permit may be obtained between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday, excluding holidays from:

Samuel Kaplan, P.E.
Department of Environmental Management – RIPDES Program
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-4700, ext. 7046
Email: samuel.kaplan@dem.ri.gov

10/18/18
Date

Joseph B. Haberek, P.E.
Supervising Sanitary Engineer
RIPDES Permitting Section
Office of Water Resources
Department of Environmental Management

ATTACHMENT A

DESCRIPTION OF DISCHARGE: Treated Filter Backwash from the 87 Branch Street, Pawtucket RI Facility

DISCHARGE: 002B

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE OF SELECTED POLLUTANTS:

PARAMETER	AVERAGE[1]	DAILY MAX[1]
Aluminum, total (as Al) (ug/l)	452.1	668.1
Chlorine, total residual (ug/l)	32.5	39.2
Flow (MGD)	1.06	1.56
pH (s.u.)	6.37 (MIN)	6.71 (MAX)
TSS (lb/day)	35.7	53.2
TSS (mg/l)	3.58	5.26
Turbidity (NTU)	0.91	1.29
Cadmium, total (as Cd) (ug/l)	0	0
Lead, total (as Pb) (ug/l)	0	0

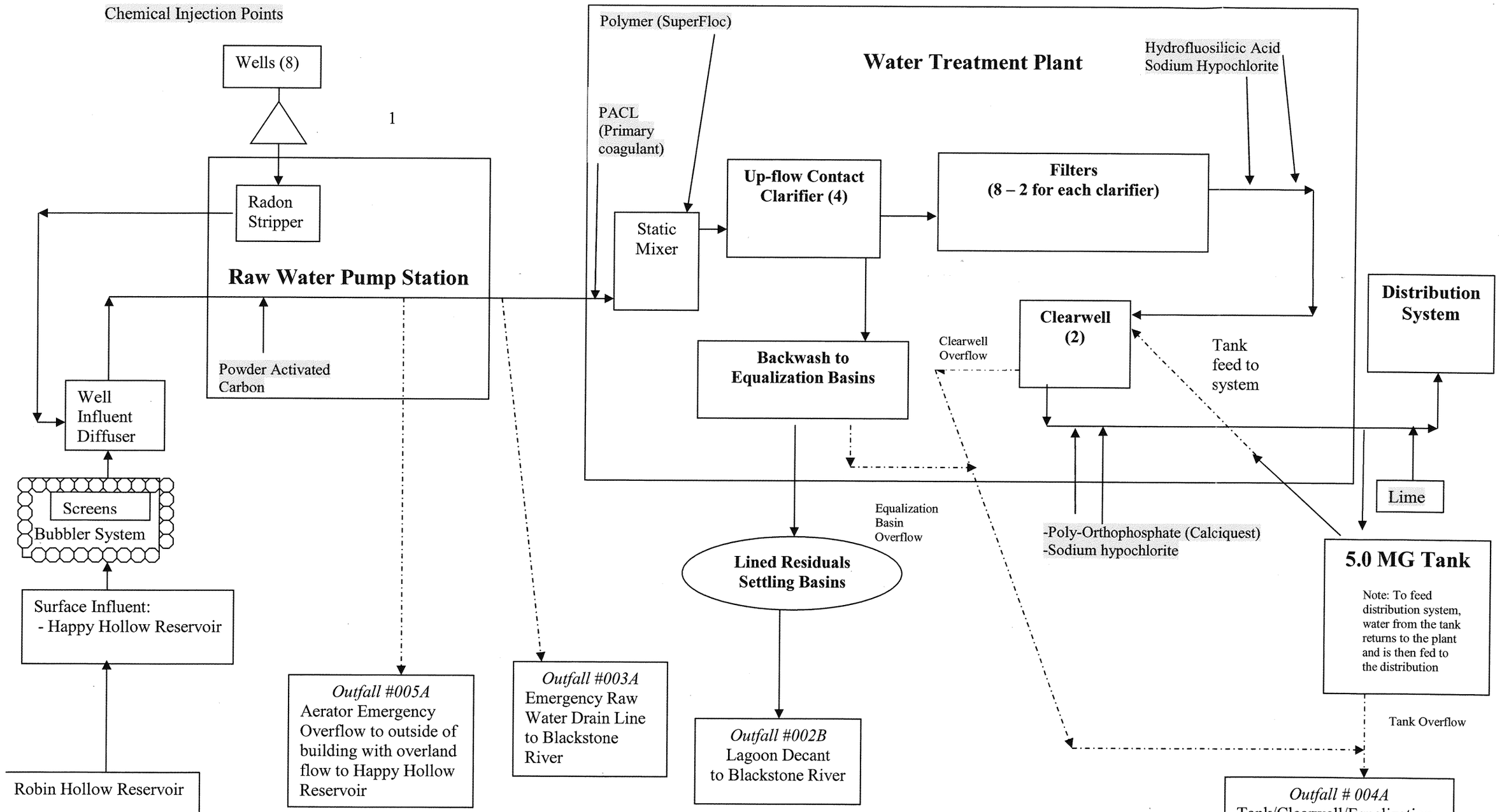
[1] All data represents the average of the monthly average data and the average of the daily maximum data submitted by the permittee for this outfall for the period from January 2013 thru December 2017. Please note that non-detect values are coded in as zeros.

DESCRIPTION OF DISCHARGE: Emergency discharges of pretreated water originating from the Raw Water Pipeline which runs between the raw water pump station and the water treatment facility.

DISCHARGE: 003A

NO DISCHARGE OCCURRED AT THIS OUTFALL DURING THE PERIOD FROM JANUARY 2013 THRUDECEMBER 2017.

ATTACHMENT B – PROCESS FLOW DIAGRAM



Pawtucket Water Flow Diagram – Compliance Map (updated 05/02/2017)

ATTACHMENT C – WATER QUALITY CALCULATIONS

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY SPECIFIC DATA INPUT SHEET

NOTE: LIMITS BASED ON RI WATER QUALITY CRITERIA DATED JULY 2006

FACILITY NAME: **Pawtucket WTP Outfall 002B**

RIPDES PERMIT #: **RI0001589**

	DISSOLVED BACKGROUND DATA (ug/L)	ACUTE METAL TRANSLATOR	CHRONIC METAL TRANSLATOR
ALUMINUM	NA	NA	NA
ARSENIC	NA	1	1
CADMIUM	NA	0.973283604	0.938283604
CHROMIUM III	NA	0.316	0.86
CHROMIUM VI	NA	0.982	0.962
COPPER	NA	0.96	0.96
LEAD	NA	0.892986307	0.892986307
MERCURY	NA	0.85	0.85
NICKEL	NA	0.998	0.997
SELENIUM	NA	NA	NA
SILVER	NA	0.85	NA
ZINC	NA	0.978	0.986
AMMONIA (as N) (mg/L)	NA		

USE NA WHEN NO DATA IS AVAILABLE

NOTE 1: METAL TRANSLATORS FROM RI WATER QUALITY REGS.

pH =	**7.25** S.U.
HARDNESS =	**49.66** (mg/L as CaCO3)

FLOW DATA	
DESIGN FLOW =	**1.600** MGD
=	2.476 CFS
7Q10 FLOW =	**116.000** CFS
7Q10 (JUNE-OCT) =	**116.000** CFS
7Q10 (NOV-MAY) =	**116.000** CFS
30Q5 FLOW =	**116.000** CFS
HARMONIC FLOW =	**116.000** CFS

DILUTION FACTORS	
ACUTE =	**47.855**
CHRONIC =	**47.855**
(MAY-OCT) =	**47.855**
(NOV-APR) =	**47.855**
30Q5 FLOW =	**47.855**
HARMONIC FLOW =	**47.855**

WATER QUALITY BASED EFFLUENT LIMITS - FRESHWATER

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Pawtucket WTP Outfall 002B RIPDES PERMIT #: RI0001589

Month	Upper 90th% pH	Acute Criteria* mg/L as N	Chronic Criteria* mg/L as N
May	7.80	12.1	1.73
Jun	7.80	12.1	1.73
Jul	7.80	12.1	1.73
Aug	7.80	12.1	1.73
Sep	7.80	12.1	1.73
Oct	7.80	12.1	1.73
Nov	7.80	12.1	1.73
Dec	7.80	12.1	5.17
Jan	7.80	12.1	5.17
Feb	7.80	12.1	5.17
Mar	7.80	12.1	5.17
Apr	7.80	12.1	1.73

**NOTE: Criteria from Appendix B of the RI Water Quality Regs., July 2006.*

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Pawtucket WTP Outfall 002B RIPDES PERMIT #: RI0001589

NOTE: METALS CRITERIA ARE EXPRESSED AS DISSOLVED, METALS LIMITS ARE EXPRESSED AS TOTAL

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	FRESHWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	FRESHWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
PRIORITY POLLUTANTS:							
TOXIC METALS AND CYANIDE							
ANTIMONY	7440360		450	17227.6992	10	640	382.83776
ARSENIC (limits are total recoverable)	7440382	NA	340	13016.48384	150	1.4	53.5972864
ASBESTOS	1332214			No Criteria			No Criteria
BERYLLIUM	7440417		7.5	287.12832	0.17		6.50824192
CADMIUM (limits are total recoverable)	7440439	NA	1.019192525	40.08958765	0.151178561		6.168376112
CHROMIUM III (limits are total recoverable)	16065831	NA	321.1786112	38911.17091	41.77873864		1859.823107
CHROMIUM VI (limits are total recoverable)	18540299	NA	16	623.7682444	11		437.7562744
COPPER (limits are total recoverable)	7440508	NA	6.949827719	277.1517163	4.924512571		196.3843085
CYANIDE	57125		22	842.243072	5.2	140	199.0756352
LEAD (limits are total recoverable)	7439921	NA	29.91068749	1282.319841	1.16557655		49.97016325
MERCURY (limits are total recoverable)	7439976	NA	1.4	63.05563106	0.77	0.15	6.755960471
NICKEL (limits are total recoverable)	7440020	NA	259.0058259	9935.592204	28.76755095	4600	1104.64441
SELENIUM (limits are total recoverable)	7782492	NA	20	765.67552	5	4200	191.41888
SILVER (limits are total recoverable)	7440224	NA	1.035136759	46.62228683	NA		No Criteria
THALLIUM	7440280		46	1761.053696	1	0.47	17.99337472
ZINC (limits are total recoverable)	7440666	NA	64.75971907	2535.016952	65.28945093	26000	2535.016952
VOLATILE ORGANIC COMPOUNDS							
ACROLEIN	107028		2.9	111.0229504	0.06	290	2.29702656
ACRYLONITRILE	107131		378	14471.26733	8.4	2.5	95.70944
BENZENE	71432		265	10145.20064	5.9	510	225.8742784
BROMOFORM	75252		1465	56085.73184	33	1400	1263.364608
CARBON TETRACHLORIDE	56235		1365	52257.35424	30	16	612.540416
CHLOROBENZENE	108907		795	30435.60192	18	1600	689.107968
CHLORODIBROMOMETHANE	124481			No Criteria		130	4976.89088
CHLOROFORM	67663		1445	55320.05632	32	4700	1225.080832
DICHLOROBROMOMETHANE	75274			No Criteria		170	6508.24192
1,2DICHLOROETHANE	107062		5900	225874.2784	131	370	5015.174656
1,1DICHLOROETHYLENE	75354		580	22204.59008	13	7100	497.689088
1,2DICHLOROPROPANE	78875		2625	100494.912	58	150	2220.459008
1,3DICHLOROPROPYLENE	542756			No Criteria		21	803.959296
ETHYLBENZENE	100414		1600	61254.0416	36	2100	1378.215936
BROMOMETHANE (methyl bromide)	74839			No Criteria		1500	57425.664
CHLOROMETHANE (methyl chloride)	74873			No Criteria			No Criteria
METHYLENE CHLORIDE	75092		9650	369438.4384	214	5900	8192.728064

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Pawtucket WTP Outfall 002B RIPDES PERMIT #: RI0001589

NOTE: METALS CRITERIA ARE EXPRESSED AS DISSOLVED, METALS LIMITS ARE EXPRESSED AS TOTAL

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	FRESHWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	FRESHWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
1,1,2,2TETRACHLOROETHANE	79345		466	17840.23962	10	40	382.83776
TETRACHLOROETHYLENE	127184		240	9188.10624	5.3	33	202.9040128
TOLUENE	108883		635	24310.19776	14	15000	535.972864
1,2TRANSDICHLOROETHYLENE	156605			No Criteria		10000	382837.76
1,1,1TRICHLOROETHANE	71556			No Criteria			No Criteria
1,1,2TRICHLOROETHANE	79005		900	34455.3984	20	160	765.67552
TRICHLOROETHYLENE	79016		1950	74653.3632	43	300	1646.202368
VINYL CHLORIDE	75014			No Criteria		2.4	91.8810624
ACID ORGANIC COMPOUNDS							
2CHLOROPHENOL	95578		129	4938.607104	2.9	150	111.0229504
2,4DICHLOROPHENOL	120832		101	3866.661376	2.2	290	84.2243072
2,4DIMETHYLPHENOL	105679		106	4058.080256	2.4	850	91.8810624
4,6DINITRO2METHYL PHENOL	534521			No Criteria		280	10719.45728
2,4DINITROPHENOL	51285		31	1186.797056	0.69	5300	26.41580544
4NITROPHENOL	88755			No Criteria			No Criteria
PENTACHLOROPHENOL	87865		0.056276787	2.15448789	0.043175885	30	1.652935929
PHENOL	108952		251	9609.227776	5.6	1700000	214.3891456
2,4,6TRICHLOROPHENOL	88062		16	612.540416	0.36	24	13.78215936
BASE NEUTRAL COMPUNDS							
ACENAPHTHENE	83329		85	3254.12096	1.9	990	72.7391744
ANTHRACENE	120127			No Criteria		40000	1531351.04
BENZIDINE	92875			No Criteria		0.002	0.076567552
POLYCYCLIC AROMATIC HYDROCARBONS				No Criteria		0.18	6.89107968
BIS(2CHLOROETHYL)ETHER	111444			No Criteria		5.3	202.9040128
BIS(2CHLOROISOPROPYL)ETHER	108601			No Criteria		65000	2488445.44
BIS(2ETHYLHEXYL)PHTHALATE	117817		555	21247.49568	12	22	459.405312
BUTYL BENZYL PHTHALATE	85687		85	3254.12096	1.9	1900	72.7391744
2CHLORONAPHTHALENE	91587			No Criteria		1600	61254.0416
1,2DICHLOROBENZENE	95501		79	3024.418304	1.8	1300	68.9107968
1,3DICHLOROBENZENE	541731		390	14930.67264	8.7	960	333.0688512
1,4DICHLOROBENZENE	106467		56	2143.891456	1.2	190	45.9405312
3,3DICHLOROBENZIDENE	91941			No Criteria		0.28	10.71945728
DIETHYL PHTHALATE	84662		2605	99729.23648	58	44000	2220.459008
DIMETHYL PHTHALATE	131113		1650	63168.2304	37	1100000	1416.499712
DI-n-BUTYL PHTHALATE	84742			No Criteria		4500	172276.992
2,4DINITROTOLUENE	121142		1550	59339.8528	34	34	1301.648384

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Pawtucket WTP Outfall 002B RIPDES PERMIT #: RI0001589

NOTE: METALS CRITERIA ARE EXPRESSED AS DISSOLVED, METALS LIMITS ARE EXPRESSED AS TOTAL

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	FRESHWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	FRESHWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
1,2DIPHENYLHYDRAZINE	122667		14	535.972864	0.31	2	11.86797056
FLUORANTHENE	206440		199	7618.471424	4.4	140	168.4486144
FLUORENE	86737			No Criteria		5300	202904.0128
HEXACHLOROBENZENE	118741			No Criteria		0.0029	0.11102295
HEXACHLOROBUTADIENE	87683			No Criteria		180	6891.07968
HEXACHLOROCYCLOPENTADIENE	77474		0.35	13.3993216	0.008	1100	0.306270208
HEXACHLOROETHANE	67721		49	1875.905024	1.1	33	42.1121536
ISOPHORONE	78591		5850	223960.0896	130	9600	4976.89088
NAPHTHALENE	91203		115	4402.63424	2.6		99.5378176
NITROBENZENE	98953		1350	51683.0976	30	690	1148.51328
N-NITROSODIMETHYLAMINE	62759			No Criteria		30	1148.51328
N-NITROSODI-N-PROPYLAMINE	621647			No Criteria		5.1	195.2472576
N-NITROSODIPHENYLAMINE	86306		293	11217.14637	6.5	60	248.844544
PYRENE	129000			No Criteria		4000	153135.104
1,2,4trichlorobenzene	120821		75	2871.2832	1.7	70	65.0824192
PESTICIDES/PCBs							
ALDRIN	309002		3	114.851328		0.0005	0.019141888
Alpha BHC	319846			No Criteria		0.049	1.875905024
Beta BHC	319857			No Criteria		0.17	6.50824192
Gamma BHC (Lindane)	58899		0.95	36.3695872		1.8	68.9107968
CHLORDANE	57749		2.4	91.8810624	0.0043	0.0081	0.164620237
4,4DDT	50293		1.1	42.1121536	0.001	0.0022	0.038283776
4,4DDE	72559			No Criteria		0.0022	0.084224307
4,4DDD	72548			No Criteria		0.0031	0.118679706
DIELDRIN	60571		0.24	9.18810624	0.056	0.00054	0.020673239
ENDOSULFAN (alpha)	959988		0.22	8.42243072	0.056	89	2.143891456
ENDOSULFAN (beta)	33213659		0.22	8.42243072	0.056	89	2.143891456
ENDOSULFAN (sulfate)	1031078			No Criteria		89	3407.256064
ENDRIN	72208		0.086	3.292404736	0.036	0.06	1.378215936
ENDRIN ALDEHYDE	7421934			No Criteria		0.3	11.4851328
HEPTACHLOR	76448		0.52	19.90756352	0.0038	0.00079	0.030244183
HEPTACHLOR EPOXIDE	1024573		0.52	19.90756352	0.0038	0.00039	0.014930673
POLYCHLORINATED BIPHENYLS3	1336363			No Criteria	0.014	0.00064	0.024501617
2,3,7,8TCDD (Dioxin)	1746016			No Criteria		0.000000051	1.95247E-06
TOXAPHENE	8001352		0.73	27.94715648	0.0002	0.0028	0.007656755
TRIBUTYLTIN			0.46	17.61053696	0.072		2.756431872

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Pawtucket WTP Outfall 002B RIPDES PERMIT #: RI0001589

NOTE: METALS CRITERIA ARE EXPRESSED AS DISSOLVED, METALS LIMITS ARE EXPRESSED AS TOTAL

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	FRESHWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	FRESHWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
NON PRIORITY POLLUTANTS:							
OTHER SUBSTANCES							
ALUMINUM (limits are total recoverable)	7429905	NA	750	28712.832	87		3330.688512
AMMONIA as N(winter/summer)	7664417		12.1 | 12.1	5E+05 | 5E+05	1.73 | 1.73		66230.9 | 66230.9
4BROMOPHENYL PHENYL ETHER			18	689.107968	0.4		15.3135104
CHLORIDE	16887006		860000	32924047.36	230000		8805268.48
CHLORINE	7782505		19	909.23968	11		526.40192
4CHLORO2METHYLPHENOL			15	574.25664	0.32		12.25080832
1CHLORONAPHTHALENE			80	3062.70208	1.8		68.9107968
4CHLOROPHENOL	106489		192	7350.484992	4.3		164.6202368
2,4DICHLORO6METHYLPHENOL			22	842.243072	0.48		18.37621248
1,1DICHLOROPROPANE			1150	44026.3424	26		995.378176
1,3DICHLOROPROPANE	142289		303	11599.98413	6.7		256.5012992
2,3DINITROTOLUENE			17	650.824192	0.37		14.16499712
2,4DINITRO6METHYL PHENOL			12	459.405312	0.26		9.95378176
IRON	7439896			No Criteria	1000		38283.776
pentachlorobenzene	608935		13	497.689088	0.28		10.71945728
PENTACHLOROETHANE			362	13858.72691	8		306.270208
1,2,3,5tetrachlorobenzene			321	12289.0921	7.1		271.8148096
1,1,1,2TETRACHLOROETHANE	630206		980	37518.10048	22		842.243072
2,3,4,6TETRACHLOROPHENOL	58902		7	267.986432	0.16		6.12540416
2,3,5,6TETRACHLOROPHENOL			8.5	325.412096	0.19		7.27391744
2,4,5TRICHLOROPHENOL	95954		23	880.526848	0.51		19.52472576
2,4,6TRINITROPHENOL	88062		4235	162131.7914	94		3598.674944
XYLENE	1330207		133	5091.742208	3		114.851328

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Pawtucket WTP Outfall 002B RIPDES PERMIT #: RI0001589

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
PRIORITY POLLUTANTS:			
TOXIC METALS AND CYANIDE			
ANTIMONY	7440360	17227.70	382.84
ARSENIC, TOTAL	7440382	13016.48	53.60
ASBESTOS	1332214	No Criteria	0.00000
BERYLLIUM	7440417	287.13	6.51
CADMIUM, TOTAL	7440439	40.09	6.16838
CHROMIUM III, TOTAL	16065831	38911.17	1859.82
CHROMIUM VI, TOTAL	18540299	623.77	437.76
COPPER, TOTAL	7440508	277.15	196.38
CYANIDE	57125	842.24	199.08
LEAD, TOTAL	7439921	1282.32	49.97
MERCURY, TOTAL	7439976	63.06	6.76
NICKEL, TOTAL	7440020	9935.59	1104.64
SELENIUM, TOTAL	7782492	765.68	191.42
SILVER, TOTAL	7440224	46.62	No Criteria
THALLIUM	7440280	1761.05	17.99
ZINC, TOTAL	7440666	2535.02	2535.02
VOLATILE ORGANIC COMPOUNDS			
ACROLEIN	107028	111.02	2.29703
ACRYLONITRILE	107131	14471.27	95.71
BENZENE	71432	10145.20	225.87
BROMOFORM	75252	56085.73	1263.36
CARBON TETRACHLORIDE	56235	52257.35	612.54
CHLOROBENZENE	108907	30435.60	689.11
CHLORODIBROMOMETHANE	124481	No Criteria	4976.89
CHLOROFORM	67663	55320.06	1225.08
DICHLOROBROMOMETHANE	75274	No Criteria	6508.24
1,2DICHLOROETHANE	107062	225874.28	5015.17
1,1DICHLOROETHYLENE	75354	22204.59	497.69
1,2DICHLOROPROPANE	78875	100494.91	2220.46
1,3DICHLOROPROPYLENE	542756	No Criteria	803.96
ETHYLBENZENE	100414	61254.04	1378.22
BROMOMETHANE (methyl bromide)	74839	No Criteria	57425.66
CHLOROMETHANE (methyl chloride)	74873	No Criteria	0.00000
METHYLENE CHLORIDE	75092	369438.44	8192.73
1,1,2,2TETRACHLOROETHANE	79345	17840.24	382.84
TETRACHLOROETHYLENE	127184	9188.11	202.90
TOLUENE	108883	24310.20	535.97
1,2TRANSDICHLOROETHYLENE	156605	No Criteria	382837.76
1,1,1TRICHLOROETHANE	71556	No Criteria	0.00000
1,1,2TRICHLOROETHANE	79005	34455.40	765.68
TRICHLOROETHYLENE	79016	74653.36	1646.20
VINYL CHLORIDE	75014	No Criteria	91.88
ACID ORGANIC COMPOUNDS			
2CHLOROPHENOL	95578	4938.61	111.02
2,4DICHLOROPHENOL	120832	3866.66	84.22
2,4DIMETHYLPHENOL	105679	4058.08	91.88
4,6DINITRO2METHYL PHENOL	534521	No Criteria	10719.46
2,4DINITROPHENOL	51285	1186.80	26.42
4NITROPHENOL	88755	No Criteria	0.00000
PENTACHLOROPHENOL	87865	2.15	1.65294
PHENOL	108952	9609.23	214.39
2,4,6TRICHLOROPHENOL	88062	612.54	13.78
BASE NEUTRAL COMPUNDS			
ACENAPHTHENE	83329	3254.12	72.74
ANTHRACENE	120127	No Criteria	1531351.04
BENZIDINE	92875	No Criteria	0.07657
PAHs		No Criteria	6.89
BIS(2CHLOROETHYL)ETHER	111444	No Criteria	202.90
BIS(2CHLOROISOPROPYL)ETHER	108601	No Criteria	2488445.44
BIS(2ETHYLHEXYL)PHTHALATE	117817	21247.50	459.41
BUTYL BENZYL PHTHALATE	85687	3254.12	72.74
2CHLORONAPHTHALENE	91587	No Criteria	61254.04
1,2DICHLOROBENZENE	95501	3024.42	68.91
1,3DICHLOROBENZENE	541731	14930.67	333.07
1,4DICHLOROBENZENE	106467	2143.89	45.94
3,3DICHLOROBENZIDENE	91941	No Criteria	10.72
DIETHYL PHTHALATE	84662	99729.24	2220.46
DIMETHYL PHTHALATE	131113	63168.23	1416.50
DI-n-BUTYL PHTHALATE	84742	No Criteria	172276.99
2,4DINITROTOLUENE	121142	59339.85	1301.65
1,2DIPHENYLHYDRAZINE	122667	535.97	11.87
FLUORANTHENE	206440	7618.47	168.45

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Pawtucket WTP Outfall 002B RIPDES PERMIT #: RI0001589

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
FLUORENE	86737	No Criteria	202904.01
HEXACHLOROBENZENE	118741	No Criteria	0.11102
HEXACHLOROBUTADIENE	87683	No Criteria	6891.08
HEXACHLOROCYCLOPENTADIENE	77474	13.40	0.30627
HEXACHLOROETHANE	67721	1875.91	42.11
ISOPHORONE	78591	223960.09	4976.89
NAPHTHALENE	91203	4402.63	99.54
NITROBENZENE	98953	51683.10	1148.51
N-NITROSODIMETHYLAMINE	62759	No Criteria	1148.51
N-NITROSODI-N-PROPYLAMINE	621647	No Criteria	195.25
N-NITROSODIPHENYLAMINE	86306	11217.15	248.84
PYRENE	129000	No Criteria	153135.10
1,2,4trichlorobenzene	120821	2871.28	65.08
PESTICIDES/PCBs			
ALDRIN	309002	114.85	0.01914
Alpha BHC	319846	No Criteria	1.88
Beta BHC	319857	No Criteria	6.51
Gamma BHC (Lindane)	58899	36.37	36.37
CHLORDANE	57749	91.88	0.16462
4,4DDT	50293	42.11	0.03828
4,4DDE	72559	No Criteria	0.08422
4,4DDD	72548	No Criteria	0.11868
DIELDRIN	60571	9.19	0.02067
ENDOSULFAN (alpha)	959988	8.42	2.14389
ENDOSULFAN (beta)	33213659	8.42	2.14389
ENDOSULFAN (sulfate)	1031078	No Criteria	3407.26
ENDRIN	72208	3.29	1.38
ENDRIN ALDEHYDE	7421934	No Criteria	11.49
HEPTACHLOR	76448	19.91	0.03
HEPTACHLOR EPOXIDE	1024573	19.91	0.01
POLYCHLORINATED BIPHENYLS3	1336363	No Criteria	0.02
2,3,7,8TCDD (Dioxin)	1746016	No Criteria	0.00
TOXAPHENE	8001352	27.95	0.01
TRIBUTYLTIN		17.61	2.76

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
NON PRIORITY POLLUTANTS:			
OTHER SUBSTANCES			
ALUMINUM, TOTAL	7429905	28712.83	3330.69
AMMONIA (as N), WINTER (NOV-API	7664417	463233.69	66230.93
AMMONIA (as N), SUMMER (MAY-OC	7664417	463233.69	66230.93
4BROMOPHENYL PHENYL ETHER		689.11	15.31
CHLORIDE	16887006	32924047.36	8805268.48
CHLORINE	7782505	909.24	526.40
4CHLORO2METHYLPHENOL		574.26	12.25
1CHLORONAPHTHALENE		3062.70	68.91
4CHLOROPHENOL	106489	7350.48	164.62
2,4DICHLORO6METHYLPHENOL		842.24	18.38
1,1DICHLOROPROPANE		44026.34	995.38
1,3DICHLOROPROPANE	142289	11599.98	256.50
2,3DINITROTOLUENE		650.82	14.16
2,4DINITRO6METHYL PHENOL		459.41	9.95
IRON	7439896	No Criteria	38283.78
pentachlorobenzene	608935	497.69	10.72
PENTACHLOROETHANE		13858.73	306.27
1,2,3,5tetrachlorobenzene		12289.09	271.81
1,1,1,2TETRACHLOROETHANE	630206	37518.10	842.24
2,3,4,6TETRACHLOROPHENOL	58902	267.99	6.13
2,3,5,6TETRACHLOROPHENOL		325.41	7.27
2,4,5TRICHLOROPHENOL	95954	880.53	19.52
2,4,6TRINITROPHENOL	88062	162131.79	3598.67
XYLENE	1330207	5091.74	114.85

DEM/RIPDES
Samuel Kaplan, P.E.

Facility Name: *Pawtucket WTP Outfall 002B*

RIPDES Permit #: *RI0001589*

Outfall #: *002B*

NOTE: METALS LIMITS ARE TOTAL METALS

Parameter	CAS #	Concentration Limits (ug/L) Based on WQ Criteria		Antideg. Limits (ug/L)	Date (ug/L) 12/16 Permit Ap.		Ave. DMR Data (ug/L) 1/13-12/17		Potential Permit Limits (ug/L)		Reasonable Potential?	
		Daily Max	Monthly Ave	Monthly Ave	Max	Ave	Daily Max	Monthly Ave	Daily Max	Monthly Ave	Daily Max	Monthly Ave
PRIORITY POLLUTANTS												
TOXIC METALS AND CYANIDE												
ANTIMONY	7440360	17227.70	382.84	---	---	---	---	---	17227.6992	382.83776		
ARSENIC (limits are total recoverable)	7440382	13016.48	53.60	---	---	---	---	---	13016.48384	53.5972864		
ASBESTOS	1332214	No Criteria	0.00	---	---	---	---	---	---	0		
BERYLLIUM	7440417	287.13	6.51	---	---	---	---	---	287.12832	6.50824192		
CADMIUM (limits are total recoverable)	7440439	40.09	6.17	---	---	---	0	0	40.08958765	6.168376112	N	N
CHROMIUM III (limits are total recoverable)	16065831	38911.17	1859.82	---	---	---	---	---	38911.17091	1859.823107		
CHROMIUM VI (limits are total recoverable)	18540299	623.77	437.76	---	---	---	---	---	623.7682444	437.7562744		
COPPER (limits are total recoverable)	7440508	277.15	196.38	---	---	---	---	---	277.1517163	196.3843085		
CYANIDE	57125	842.24	199.08	---	---	---	---	---	842.243072	199.0756352		
LEAD (limits are total recoverable)	7439921	1282.32	49.97	---	---	---	0	0	1282.319841	49.97016325	N	N
MERCURY (limits are total recoverable)	7439976	63.06	6.76	---	---	---	---	---	63.05563106	6.755960471		
NICKEL (limits are total recoverable)	7440020	9935.59	1104.64	---	---	---	---	---	9935.592204	1104.64441		
SELENIUM (limits are total recoverable)	7782492	765.68	191.42	---	---	---	---	---	765.67552	191.41888		
SILVER (limits are total recoverable)	7440224	46.62	No Criteria	---	---	---	---	---	46.62228683	46.62228683		
THALLIUM	7440280	1761.05	17.99	---	---	---	---	---	1761.053696	17.99337472		
ZINC (limits are total recoverable)	7440666	2535.02	2535.02	---	---	---	---	---	2535.016952	2535.016952		
VOLATILE ORGANIC COMPOUNDS												
ACROLEIN	107028	111.02	2.30	---	---	---	---	---	111.0229504	2.29702656		
ACRYLONITRILE	107131	14471.27	95.71	---	---	---	---	---	14471.26733	95.70944		
BENZENE	71432	10145.20	225.87	---	---	---	---	---	10145.20064	225.8742784		
BROMOFORM	75252	56085.73	1263.36	---	---	---	---	---	56085.73184	1263.364608		
CARBON TETRACHLORIDE	56235	52257.35	612.54	---	---	---	---	---	52257.35424	612.540416		
CHLOROBENZENE	108907	30435.60	689.11	---	---	---	---	---	30435.60192	689.107968		
CHLORODIBROMOMETHANE	124481	No Criteria	4976.89	---	---	---	---	---	---	4976.89088		
CHLOROFORM	67663	55320.06	1225.08	---	---	---	---	---	55320.05632	1225.080832		
DICHLOROBROMOMETHANE	75274	No Criteria	6508.24	---	---	---	---	---	---	6508.24192		

1,2DICHLOROETHANE	107062	225874.28	5015.17	---	---	---	---	---	225874.2784	5015.174656		
1,1DICHLOROETHYLENE	75354	22204.59	497.69	---	---	---	---	---	22204.59008	497.689088		
1,2DICHLOROPROPANE	78875	100494.91	2220.46	---	---	---	---	---	100494.912	2220.459008		
1,3DICHLOROPROPYLENE	542756	No Criteria	803.96	---	---	---	---	---	---	803.959296		
ETHYLBENZENE	100414	61254.04	1378.22	---	---	---	---	---	61254.0416	1378.215936		
BROMOMETHANE (methyl bromide)	74839	No Criteria	57425.66	---	---	---	---	---	---	57425.664		
CHLOROMETHANE (methyl chloride)	74873	No Criteria	0.00	---	---	---	---	---	---	0		
METHYLENE CHLORIDE	75092	369438.44	8192.73	---	---	---	---	---	369438.4384	8192.728064		
1,1,2,2TETRACHLOROETHANE	79345	17840.24	382.84	---	---	---	---	---	17840.23962	382.83776		
TETRACHLOROETHYLENE	127184	9188.11	202.90	---	---	---	---	---	9188.10624	202.9040128		
TOLUENE	108883	24310.20	535.97	---	---	---	---	---	24310.19776	535.972864		
1,2TRANSDICHLOROETHYLENE	156605	No Criteria	382837.76	---	---	---	---	---	---	382837.76		
1,1,1TRICHLOROETHANE	71556	No Criteria	0.00	---	---	---	---	---	---	0		
1,1,2TRICHLOROETHANE	79005	34455.40	765.68	---	---	---	---	---	34455.3984	765.67552		
TRICHLOROETHYLENE	79016	74653.36	1646.20	---	---	---	---	---	74653.3632	1646.202368		
VINYL CHLORIDE	75014	No Criteria	91.88	---	---	---	---	---	---	91.8810624		
ACID ORGANIC COMPOUNDS												
2CHLOROPHENOL	95578	4938.61	111.02	---	---	---	---	---	4938.607104	111.0229504		
2,4DICHLOROPHENOL	120832	3866.66	84.22	---	---	---	---	---	3866.661376	84.2243072		
2,4DIMETHYLPHENOL	105679	4058.08	91.88	---	---	---	---	---	4058.080256	91.8810624		
4,6DINITRO2METHYL PHENOL	534521	No Criteria	10719.46	---	---	---	---	---	---	10719.45728		
2,4DINITROPHENOL	51285	1186.80	26.42	---	---	---	---	---	1186.797056	26.41580544		
4NITROPHENOL	88755	No Criteria	0.00	---	---	---	---	---	---	0		
PENTACHLOROPHENOL	87865	2.15	1.65	---	---	---	---	---	2.15448789	1.652935929		
PHENOL	108952	9609.23	214.39	---	---	---	---	---	9609.227776	214.3891456		
2,4,6TRICHLOROPHENOL	88062	612.54	13.78	---	---	---	---	---	612.540416	13.78215936		
BASE NEUTRAL COMPOUNDS												
ACENAPHTHENE	83329	3254.12	72.74	---	---	---	---	---	3254.12096	72.7391744		
ANTHRACENE	120127	No Criteria	1531351.04	---	---	---	---	---	---	1531351.04		
BENZIDINE	92875	No Criteria	0.08	---	---	---	---	---	---	0.076567552		
POLYCYCLIC AROMATIC HYDROCARBONS		No Criteria	6.89	---	---	---	---	---	---	6.89107968		
BIS(2CHLOROETHYL)ETHER	111444	No Criteria	202.90	---	---	---	---	---	---	202.9040128		
BIS(2CHLOROISOPROPYL)ETHER	108601	No Criteria	2488445.44	---	---	---	---	---	---	2488445.44		
BIS(2ETHYLHEXYL)PHTHALATE	117817	21247.50	459.41	---	---	---	---	---	21247.49568	459.405312		
BUTYL BENZYL PHTHALATE	85687	3254.12	72.74	---	---	---	---	---	3254.12096	72.7391744		
2CHLORONAPHTHALENE	91587	No Criteria	61254.04	---	---	---	---	---	---	61254.0416		
1,2DICHLOROBENZENE	95501	3024.42	68.91	---	---	---	---	---	3024.418304	68.9107968		
1,3DICHLOROBENZENE	541731	14930.67	333.07	---	---	---	---	---	14930.67264	333.0688512		
1,4DICHLOROBENZENE	106467	2143.89	45.94	---	---	---	---	---	2143.891456	45.9405312		
3,3DICHLOROBENZIDENE	91941	No Criteria	10.72	---	---	---	---	---	---	10.71945728		

DIETHYL PHTHALATE	84662	99729.24	2220.46	---	---	---	---	---	99729.23648	2220.459008		
DIMETHYL PHTHALATE	131113	63168.23	1416.50	---	---	---	---	---	63168.2304	1416.499712		
DInBUTYL PHTHALATE	84742	No Criteria	172276.99	---	---	---	---	---	---	172276.992		
2,4DINITROTOLUENE	121142	59339.85	1301.65	---	---	---	---	---	59339.8528	1301.648384		
1,2DIPHENYLHYDRAZINE	122667	535.97	11.87	---	---	---	---	---	535.972864	11.86797056		
FLUORANTHENE	206440	7618.47	168.45	---	---	---	---	---	7618.471424	168.4486144		
FLUORENE	86737	No Criteria	202904.01	---	---	---	---	---	---	202904.0128		
HEXACHLOROBENZENE	118741	No Criteria	0.11	---	---	---	---	---	---	0.11102295		
HEXACHLOROBUTADIENE	87683	No Criteria	6891.08	---	---	---	---	---	---	6891.07968		
HEXACHLOROCYCLOPENTADIENE	77474	13.40	0.31	---	---	---	---	---	13.3993216	0.306270208		
HEXACHLOROETHANE	67721	1875.91	42.11	---	---	---	---	---	1875.905024	42.1121536		
ISOPHORONE	78591	223960.09	4976.89	---	---	---	---	---	223960.0896	4976.89088		
NAPHTHALENE	91203	4402.63	99.54	---	---	---	---	---	4402.63424	99.5378176		
NITROBENZENE	98953	51683.10	1148.51	---	---	---	---	---	51683.0976	1148.51328		
NNITROSODIMETHYLAMINE	62759	No Criteria	1148.51	---	---	---	---	---	---	1148.51328		
NNITROSODINPROPYLAMINE	621647	No Criteria	195.25	---	---	---	---	---	---	195.2472576		
NNITROSODIPHENYLAMINE	86306	11217.15	248.84	---	---	---	---	---	11217.14637	248.844544		
PYRENE	129000	No Criteria	153135.10	---	---	---	---	---	---	153135.104		
1,2,4trichlorobenzene	120821	2871.28	65.08	---	---	---	---	---	2871.2832	65.0824192		
PESTICIDES/PCBs												
ALDRIN	309002	114.85	0.02	---	---	---	---	---	114.851328	0.019141888		
Alpha BHC	319846	No Criteria	1.88	---	---	---	---	---	---	1.875905024		
Beta BHC	319857	No Criteria	6.51	---	---	---	---	---	---	6.50824192		
Gamma BHC (Lindane)	58899	36.37	36.37	---	---	---	---	---	36.3695872	36.3695872		
CHLORDANE	57749	91.88	0.16	---	---	---	---	---	91.8810624	0.164620237		
4,4DDT	50293	42.11	0.04	---	---	---	---	---	42.1121536	0.038283776		
4,4DDE	72559	No Criteria	0.08	---	---	---	---	---	---	0.084224307		
4,4DDD	72548	No Criteria	0.12	---	---	---	---	---	---	0.118679706		
DIELDRIN	60571	9.19	0.02	---	---	---	---	---	9.18810624	0.020673239		
ENDOSULFAN (alpha)	959988	8.42	2.14	---	---	---	---	---	8.42243072	2.143891456		
ENDOSULFAN (beta)	33213659	8.42	2.14	---	---	---	---	---	8.42243072	2.143891456		
ENDOSULFAN (sulfate)	1031078	No Criteria	3407.26	---	---	---	---	---	---	3407.256064		
ENDRIN	72208	3.29	1.38	---	---	---	---	---	3.292404736	1.378215936		
ENDRIN ALDEHYDE	7421934	No Criteria	11.49	---	---	---	---	---	---	11.4851328		
HEPTACHLOR	76448	19.91	0.03	---	---	---	---	---	19.90756352	0.030244183		
HEPTACHLOR EPOXIDE	1024573	19.91	0.01	---	---	---	---	---	19.90756352	0.014930673		
POLYCHLORINATED BIPHENYLS3	1336363	No Criteria	0.02	---	---	---	---	---	---	0.024501617		
2,3,7,8TCDD (Dioxin)	1746016	No Criteria	0.00	---	---	---	---	---	---	1.95247E-06		
TOXAPHENE	8001352	27.95	0.01	---	---	---	---	---	27.94715648	0.007656755		
TRIBUTYLTIN		17.61	2.76						17.61053696	2.756431872		

NON PRIORITY POLLUTANTS:												
OTHER SUBSTANCES												
ALUMINUM (limits are total recoverable)	7429905	28712.83	3330.69	---	2410	660	668.1	452.1	28712.832	3330.688512	N	Y
AMMONIA (winter)	7664417	463233.69	66230.93	---	---	---	---	---	463233.6896	66230.93248		
AMMONIA (summer)		463233.69	66230.93	---	---	---	---	---	463233.6896	66230.93248		
4BROMOPHENYL PHENYL ETHER	16887006	689.11	15.31	---	---	---	---	---	689.107968	15.3135104		
CHLORIDE	7782505	32924047.36	8805268.48						32924047.36	8805268.48		
CHLORINE		909.24	526.40	---	20	10	39.2	32.5	909.23968	526.40192	N	Y
4CHLORO2METHYLPHENOL		574.26	12.25	---	---	---	---	---	574.25664	12.25080832		
1CHLORONAPHTHALENE	106489	3062.70	68.91	---	---	---	---	---	3062.70208	68.9107968		
4CHLOROPHENOL		7350.48	164.62	---	---	---	---	---	7350.484992	164.6202368		
2,4DICHLORO6METHYLPHENOL		842.24	18.38	---	---	---	---	---	842.243072	18.37621248		
1,1DICHLOROPROPANE	142289	44026.34	995.38	---	---	---	---	---	44026.3424	995.378176		
1,3DICHLOROPROPANE		11599.98	256.50	---	---	---	---	---	11599.98413	256.5012992		
2,3DINITROTOLUENE		650.82	14.16	---	---	---	---	---	650.824192	14.16499712		
2,4DINITRO6METHYL PHENOL	7439896	459.41	9.95	---	---	---	---	---	459.405312	9.95378176		
IRON	608935	No Criteria	38283.78						---	38283.776		
pentachlorobenzene		497.69	10.72	---	---	---	---	---	497.689088	10.71945728		
PENTACHLOROETHANE		13858.73	306.27	---	---	---	---	---	13858.72691	306.270208		
1,2,3,5tetrachlorobenzene	630206	12289.09	271.81	---	---	---	---	---	12289.0921	271.8148096		
1,1,1,2TETRACHLOROETHANE	58902	37518.10	842.24	---	---	---	---	---	37518.10048	842.243072		
2,3,4,6TETRACHLOROPHENOL		267.99	6.13	---	---	---	---	---	267.986432	6.12540416		
2,3,5,6TETRACHLOROPHENOL	95954	325.41	7.27	---	---	---	---	---	325.412096	7.27391744		
2,4,5TRICHLOROPHENOL	88062	880.53	19.52	---	---	---	---	---	880.526848	19.52472576		
2,4,6TRINITROPHENOL	1330207	162131.79	3598.67	---	---	---	---	---	162131.7914	3598.674944		
XYLENE		5091.74	114.85						5091.742208	114.851328		

PART II
TABLE OF CONTENTS

GENERAL REQUIREMENTS

(a) Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Chapter 46-12 of the Rhode Island General Laws and the Clean Water Act (CWA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(1) The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

(2) The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307 or 308 of the Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment of not more than 1 year, or both.

(3) Chapter 46-12 of the Rhode Island General Laws provides that any person who violates a permit condition is subject to a civil penalty of not more than $5,000 per day of such violation. Any person who willfully or negligently violates a permit condition is subject to a criminal penalty of not more than $10,000 per day of such violation and imprisonment for not more than 30 days, or both. Any person who knowingly makes any false statement in connection with the permit is subject to a criminal penalty of not more than $5,000 for each instance of violation or by imprisonment for not more than 30 days, or both.

(b) Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(c) Need to Halt or Reduce Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(e) Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures, and, where applicable, compliance with DEM "Rules and Regulations Pertaining to the Operation and Maintenance of Wastewater Treatment Facilities" and "Rules and Regulations Pertaining to the Disposal and Utilization of Wastewater Treatment Facility Sludge." This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the permit.

(f) Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause, including but not limited to: (1) Violation of any terms or conditions of this permit; (2) Obtaining this permit by misrepresentation or failure to disclose all relevant facts; or (3) A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

(h) Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

(i) Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times any records that must be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

(4) Sample or monitor any substances or parameters at any location, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA or Rhode Island law.

(j) Monitoring and Records

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the volume and nature of the discharge over the sampling and reporting period.

(2) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings from continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 5 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

(3) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(4) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 and applicable Rhode Island regulations, unless other test procedures have been specified in this permit.

(5) The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall upon conviction, be punished by a fine of not more than $10,000 per violation or by imprisonment for not more than 6 months per violation or by both. Chapter 46-12 of the Rhode Island General Laws also provides that such acts are subject to a fine of not more than $5,000 per violation, or by imprisonment for not more than 30 days per violation, or by both.

(6) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(7) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136, applicable State regulations, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(k) Signatory Requirement

All applications, reports, or information submitted to the Director shall be signed and certified in accordance with Rule 12 of the Rhode Island Pollutant Discharge Elimination System (RIPDES) Regulations. Rhode Island General Laws, Chapter 46-12 provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $5,000 per violation, or by imprisonment for not more than 30 days per violation, or by both.

(l) Reporting Requirements

(1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with the permit requirements.

(3) Transfers. This permit is not transferable to any person except after written notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under State and Federal law.

(4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) Twenty-four hour reporting. The permittee shall immediately report any noncompliance which may endanger health or the environment by calling DEM at (401) 222-4700 or (401) 222-3070 at night.

A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; 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; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The following information must be reported immediately:

(i) Any unanticipated bypass which causes a violation of any effluent limitation in the permit; or

(ii) Any upset which causes a violation of any effluent limitation in the permit; or

(iii) Any violation of a maximum daily discharge limitation for any of the pollutants specifically listed by the Director in the permit.

The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

(6) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (1), (2), and (5), of this section, at the time monitoring reports are submitted. The reports shall contain the information required in paragraph (l)(5) of the section.

(7) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, they shall promptly submit such facts or information.

(m) Bypass

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

(1) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (2) and (3) of this section.

(2) Notice.

(i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.

(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Rule 14.18 of the RIPDES Regulations.

(3) Prohibition of bypass.

(i) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, where "severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production;

(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(C) The permittee submitted notices as required under paragraph (2) of this section.

(ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (3)(i) of this section.

(n) Upset

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(1) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph (2) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(2) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(a) An upset occurred and that the permittee can identify the cause(s) of the upset;

(b) The permitted facility was at the time being properly operated;

(c) The permittee submitted notice of the upset as required in Rule 14.18 of the RIPDES Regulations; and

(d) The permittee complied with any remedial measures required under Rule 14.05 of the RIPDES Regulations.

(3) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

(o) Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. Discharges which cause a violation of water quality standards are prohibited. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different or increased discharges of pollutants must be reported by submission of a new NPDES application at least 180 days prior to commencement of such discharges, or if such changes will not violate the effluent limitations specified in this permit, by notice, in writing, to the Director of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by the permit constitutes a violation.

(p) Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner consistent with applicable Federal and State laws and regulations including, but not limited to the CWA and the Federal Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq., Rhode Island General Laws, Chapters 46-12, 23-19.1 and regulations promulgated thereunder.

(q) Power Failures

In order to maintain compliance with the effluent limitation and prohibitions of this permit, the permittee shall either:

> In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;

or if such alternative power source is not in existence, and no date for its implementation appears in Part I,

> Halt reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

(r) Availability of Reports

Except for data determined to be confidential under paragraph (w) below, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the DEM, 291 Promenade Street, Providence, Rhode Island. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA and under Section 46-12-14 of the Rhode Island General Laws.

(s) State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law.

(t) Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, nor does it relieve the permittee of its obligation to comply with any other applicable Federal, State, and local laws and regulations.

(u) Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

(v) Reopener Clause

The Director reserves the right to make appropriate revisions to this permit in order to incorporate any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the CWA or State law. In accordance with Rules 15 and 23 of the RIPDES Regulations, if any effluent standard or prohibition, or water quality standard is promulgated under the CWA or under State law which is more stringent than any limitation on the pollutant in the permit, or controls a pollutant not limited in the permit, then the Director may promptly reopen the permit and modify or revoke and reissue the permit to conform to the applicable standard.

(w) Confidentiality of Information

(1) Any information submitted to DEM pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, DEM may make the information available to the pubic without further notice.

(2) Claims of confidentiality for the following information will be denied:

(i) The name and address of any permit applicant or permittee;

(ii) Permit applications, permits and any attachments thereto; and

(iii) NPDES effluent data.

(x) Best Management Practices

The permittee shall adopt Best Management Practices (BMP) to control or abate the discharge of toxic pollutants and hazardous substances associated with or ancillary to the industrial manufacturing or treatment process and the Director may request the submission of a BMP plan where the Director determines that a permittee's practices may contribute significant amounts of such pollutants to waters of the State.

(y) Right of Appeal

Within thirty (30) days of receipt of notice of a final permit decision, the permittee or any interested person may submit a request to the Director for an adjudicatory hearing to reconsider or contest that decision. The request for a hearing must conform to the requirements of Rule 49 of the RIPDES Regulations.

DEFINITIONS

1. For purposes of this permit, those definitions contained in the RIPDES Regulations and the Rhode Island Pretreatment Regulations shall apply.

2. The following abbreviations, when used, are defined below.

cu. M/day or M^3/day	cubic meters per day
mg/l	milligrams per liter
ug/l	micrograms per liter
lbs/day	pounds per day
kg/day	kilograms per day
Temp. ^oC	temperature in degrees Centigrade
Temp. ^oF	temperature in degrees Fahrenheit
Turb.	turbidity measured by the Nephelometric Method (NTU)
TNFR or TSS	total nonfilterable residue or total suspended solids
DO	dissolved oxygen
BOD	five-day biochemical oxygen demand unless otherwise specified
TKN	total Kjeldahl nitrogen as nitrogen
Total N	total nitrogen
NH_3-N	ammonia nitrogen as nitrogen
Total P	total phosphorus
COD	chemical oxygen demand
TOC	total organic carbon
Surfactant	surface-active agent
pH	a measure of the hydrogen ion concentration
PCB	polychlorinated biphenyl
CFS	cubic feet per second
MGD	million gallons per day
Oil & Grease	Freon extractable material
Total Coliform	total coliform bacteria
Fecal Coliform	total fecal coliform bacteria
ml/l	milliliter(s) per liter
NO_3-N	nitrate nitrogen as nitrogen
NO_2-N	nitrite nitrogen as nitrogen
NO_3-NO_2	combined nitrate and nitrite nitrogen as nitrogen
$C1_2$	total residual chlorine

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
PERMITS SECTION
235 PROMENADE STREET
PROVIDENCE, RHODE ISLAND 02908-5767

PUBLIC NOTICE OF PROPOSED PERMIT ACTIONS UNDER THE RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PROGRAM WHICH REGULATES DISCHARGES INTO THE WATERS OF THE STATE UNDER CHAPTER 46-12 OF THE RHODE ISLAND GENERAL LAWS OF 1956, AS AMENDED.

DATE OF NOTICE: Thursday, October 25, 2018

PUBLIC NOTICE NUMBER: PN-18-06

DRAFT RIPDES PERMITS

RIPDES PERMIT NUMBER: **RI0021601**

NAME AND MAILING ADDRESS OF APPLICANT:

Providence Water
125 Dupont Drive
Providence, RI 02907

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

P.J. Holton Water Treatment Plant
61 North Road, Route 116
Scituate, RI 02831

RECEIVING WATER: unnamed tributary to the Pawtuxet River – North Branch

RECEIVING WATER CLASSIFICATION: B

The facility which is the source of the wastewater discharge is engaged in the production of potable water. The facility has reapplied to the Rhode Island Department of Environmental Management for reissuance of an individual RIPDES permit to discharge water from the treatment plant. The discharge is composed of treated filter backwash, treated sedimentation basin cleaning discharges, and treated water quality analyzer flows. The wastewater is treated using a settling lagoon system and is discharged to an unnamed tributary which discharges into the Pawtuxet River – North Branch through one of two outfalls 001B or 002A. The draft permit contains discharge limits that are protective of water quality.

RIPDES PERMIT NUMBER: **RI0021601**

NAME AND MAILING ADDRESS OF APPLICANT:

The City of Pawtucket, Pawtucket Water Supply Board
85 Branch Street
Pawtucket, RI 02860

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Pawtucket Water Treatment Plant
87 Branch Street
Pawtucket, RI 02860

RECEIVING WATER: Blackstone River

RECEIVING WATER CLASSIFICATION: B1

The facility which is the source of the wastewater discharge is engaged in the production of potable water. The facility has reapplied to the Rhode Island Department of Environmental Management for reissuance of an individual RIPDES permit to discharge water from the treatment plant. The discharge to the Blackstone River is composed of treated filter backwash via outfall 002B, and may include emergency overflows of potable water via outfall 003A. The wastewater from the filter backwash process is treated using a settling lagoon system. The draft permit contains discharge limits that are protective of water quality.

RIPDES PERMIT NUMBER: **RI0001619**

NAME AND MAILING ADDRESS OF APPLICANT:

The Town of Jamestown
93 Narragansett Avenue
Jamestown, RI 02835

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Jamestown Water Treatment Plant
North Road
Jamestown, RI 02835

RECEIVING WATER: Unnamed Tributary to West Passage

RECEIVING WATER CLASSIFICATION: SA

The facility which is the source of the wastewater discharge is engaged in the production of potable water. The facility has reapplied to the Rhode Island Department of Environmental Management for reissuance of an individual RIPDES permit to discharge water from the treatment plant. The discharge is composed of treated ultrafiltration filter backwash and solids drying underdrain effluent. The discharge is made to an unnamed tributary to the West

Passage via outfall 002A. The wastewater from the filter backwash process is treated using sedimentation tanks. The draft permit contains discharge limits that are protective of water quality.

The DEM has determined that the proposed activities for these three above three facilities comply with the Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations and that existing uses will be maintained and protected. A detailed evaluation of the water quality impact from the proposed activities and any important benefits demonstrations, if required, may be found in the statement of basis which is available as noted below.

FURTHER INFORMATION:

A statement of basis (describing the type of facility and significant factual, legal and policy questions considered in these permit actions) may be obtained at no cost by writing or calling DEM as noted below:

Samuel Kaplan, P.E.
Rhode Island Department of Environmental Management
Office of Water Resources
Permits Section
235 Promenade Street
Providence, Rhode Island 02908-5767
(401) 222-4700 x7046

The administrative record containing all documents relating to these permit actions is on file and may be inspected, by appointment, at the DEM's Providence office mentioned above between 8:30 a.m. and 4:00 p.m., Monday through Friday, except holidays.

PUBLIC COMMENT AND REQUEST FOR PUBLIC HEARING:

Pursuant to Chapter 42-17.4 of the Rhode Island General Laws a public hearing has been scheduled to consider these permits if requested. Requests for a Public Hearing must be submitted in writing to the attention of Samuel Kaplan, P.E. at the address indicated above. Notice should be taken that if DEM receives a request from twenty-five (25) people, a governmental agency or subdivision, or an association having no less than twenty-five (25) members on or before Monday, November 26, 2018, a public hearing will be held at the following time and place:

Thursday, November 29, 2018 5:00 PM
Room 280
235 Promenade Street
Providence, Rhode Island 02908

Interested persons should contact DEM to confirm if a hearing will be held at the time and location noted above.

235 Promenade Street is accessible to the handicapped. Individuals requesting communication assistance (assistive listening devices/readers/interpreters/captions) must notify the D.E.M. at the telephone number listed above or at 831-5508 (T.D.D.) 48 hours in advance of the hearing date.

Interested parties may submit comments on the permit actions and the administrative record to the address above no later than 4:00 PM on Friday, November 30, 2018.

If, during the public comment period, significant new questions are raised concerning the permit, DEM may require a new draft permit or statement of basis or may reopen the public comment period. A public notice will be issued for any of these actions.

Any person, including the permittee/applicant, who believes these permit actions are inappropriate, must raise all reasonably ascertainable issues and submit all reasonably available arguments and factual grounds supporting their position, including all supporting material, by the close of the public comment period under Rule 41. The public comment period is from Thursday, October 25, 2018 to Friday, November 30, 2018. Commenters may request a longer comment period if necessary to provide a reasonable opportunity to comply with these requirements. Comments should be directed to DEM as noted above.

FINAL DECISION AND APPEALS:

Following the close of the comment period, and after a public hearing, if such hearing is held, the Director will issue a final decision and forward a copy of the final decision to the permittee and each person who has submitted written comments or requested notice. Within 30 days following the notice of the final decision, any interested person may submit a request for a formal hearing in accordance with the requirements of Rule 49.

10/18/18
Date

Joseph B. Haberek, P.E.
Supervising Sanitary Engineer
Permits Section, Office of Water Resources
Department of Environmental Management