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: Monday, April 7, 2025

PUBLIC NOTICE NUMBER: PN-25-01

**DRAFT RIPDES PERMITS**

RIPDES PERMIT NUMBER: **RI0023175**

NAME AND MAILING ADDRESS OF APPLICANT:

**Warwick Mall**
400 Bald Hill Road, Suite 100
Warwick, RI 02886

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**Warwick Mall**
100 West Natick Road
Warwick, Rhode Island 02886

RECEIVING WATER: **Pawtuxet River Main Stem (Waterbody ID#: RI0006017R-03)**

RECEIVING WATER CLASSIFICATION: **B1**

The facility is located in Warwick and is engaged in the operation of a retail mall. The discharge consists of stormwater from the mall, various detached retail stores, a car care center, a movie theater, detached restaurants, and their associated parking lots. In 1994, the DEM designated the facility as a significant contributor of pollutants to the Pawtuxet River. Therefore, in accordance with 250-RICR-150-10-1, the facility was required to apply for an individual RIPDES permit. The facility has reapplied to the Rhode Island Department of Environmental Management for reissuance of an individual RIPDES permit to authorize the stormwater discharge from the facility though Outfalls 001A, 001B, 001C, 002A, 003A, and 003B. This permit includes benchmarks to ensure that the discharge will not cause a water quality violation. It requires that the facility

maintain a Stormwater Pollution Prevention Plan (SWPPP) to manage stormwater pollution controls. Benchmark exceedances shall trigger a review of the facility's SWPPP and the implementation of the appropriate corrective actions. The draft permit contains new requirements for corrective actions, updated benchmark values, and new monitoring periods.

The DEM has determined that the proposed activities comply with the Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations (250-RICR-150-1) 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 which is available as noted below.

RIPDES PERMIT NUMBER: **RI0023299**

NAME AND MAILING ADDRESS OF APPLICANT:

**Rhode Island Mall Condominium Association, Inc.**
c/o TKG Management, Inc.
211 N. Stadium Boulevard, Suite 201
Columbia, MO 65203

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**Rhode Island Mall Condominium Association, Inc.**
East Avenue and Bald Hill Road
Warwick, Rhode Island 02886

RECEIVING WATER: **Pawtuxet River Main Stem (Waterbody ID#: RI0006017R-03)**

RECEIVING WATER CLASSIFICATION: **B1**

The facility is located in Warwick and is engaged in the operation of a retail shopping site, including a mall, a detached building housing a BJ's Wholesale Club, and their associated parking lots. In 1994, the DEM designated the facility as a significant contributor of pollutants to the Pawtuxet River. Therefore, in accordance with 250-RICR-150-10-1, the facility was required to apply for an individual RIPDES permit. The facility has reapplied to the Rhode Island Department of Environmental Management for reissuance of an individual RIPDES permit to discharge stormwater from the facility though Outfalls 002A, 002B, 003A, 004A, and 005A. This permit includes benchmarks to ensure that the discharge will not cause a water quality violation. It requires that the facility maintain a Stormwater Pollution Prevention Plan (SWPPP) to manage stormwater controls. Benchmark exceedances shall trigger a review of the facility's SWPPP and the implementation of the appropriate corrective actions. The draft permit contains new requirements for corrective actions, updated benchmark values, and new monitoring periods.

The DEM has determined that the proposed activities comply with the Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations (250-RICR-150-1) 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 which is available as noted below.

RIPDES PERMIT NUMBER: **RI0023302**

NAME AND MAILING ADDRESS OF APPLICANT:

**S-BHR Condominium Association, Inc.**
c/o Raymour and Flanigan Properties LLC
7248 Morgan Road
Liverpool, New York 13088

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**S-BHR Condominium Association, Inc.**
650 Bald Hill Road
Warwick, Rhode Island 02886

RECEIVING WATER: **Pawtuxet River Main Stem (Waterbody ID#: RI0006017R-03)**

RECEIVING WATER CLASSIFICATION: **B1**

The facility is located in Warwick and is engaged in the operation of a retail mall which includes various detached buildings, a former auto service center, and the associated parking lots. In 1994, the DEM designated the facility as a significant contributor of pollutants to the Pawtuxet River. Therefore, in accordance with 250-RICR-150-10-1, the facility was required to apply for an individual RIPDES permit. The facility has reapplied to the Rhode Island Department of Environmental Management for reissuance of an individual RIPDES permit to discharge stormwater from the facility though Outfalls 001A, 002A, and 004A. This permit includes benchmarks to ensure that the discharge will not cause a water quality violation. It requires that the facility maintain a Stormwater Pollution Prevention Plan (SWPPP) to manage stormwater controls. Benchmark exceedances shall trigger a review of the facility's SWPPP and the implementation of the appropriate corrective actions. The draft permit contains new requirements for corrective actions, updated benchmark values, and new monitoring periods.

The DEM has determined that the proposed activities comply with the Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations (250-RICR-150-1) 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 which is available as noted below.

**PERMITS TO BE TERMINATED**

RIPDES PERMIT NUMBER: **RI0020150**

NAME AND MAILING ADDRESS OF APPLICANT:

**Naval Station Newport**
1 Simonpietri Drive
Newport, RI 02841

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**Defense Fuel Support Point**
Melville Fuel Depot
Portsmouth, Rhode Island 02871

RECEIVING WATER: **Narragansett Bay–East Passage (Waterbody ID#: RI0007029E-01D)**

RECEIVING WATER CLASSIFICATION: **SB1**

The facility, which was the source of the discharge, was previously engaged in the operations of a fuel storage terminal for use by the Department of the Navy ("the Navy"). The facility was issued a permit to discharge on October 30, 1985 that expired on October 30, 1990. However, since the permittee submitted a timely and complete application on May 17, 1990, this permit was administratively continued in accordance with 250-RICR-150-10-1.13 of the Regulations for the Rhode Island Pollutant Discharge Elimination System (RIPDES). The discharges from this facility consisted of stormwater, groundwater, and fuel tank condensate water from Tanks Farms 1 – 3, which were treated by oil/water separators and conveyed to Narragansett Bay via Outfall 008A (Tank Farms 1 and 2) and Outfall 005A (Tank Farm 3). The discharge points are no longer active as they were secured/shut off as of October 31, 2016 for Outfall 008A and July 18, 2017 for Outfall 005A.

In accordance with 250-RICR-150-10-1.25.A.5 of the Regulations for the Rhode Island Pollutant Discharge Elimination System, the permit is being terminated since there has been a change in conditions that resulted in the elimination of any discharges controlled by the permit. The basis for terminating the October 30, 1985 RIPDES permit are as follows: (1) the permitted discharges from Outfalls 008A and 005A have been secured/shut off since October 31, 2016 and July 18, 2017, respectively, and (2) the facility has plans to demolish Tank Farms 1 – 3 that will remove the infrastructure and any petroleum contamination due to past operations from these sites. Any subsequent point source discharges of pollutants from these sites will require a new permit. Further information regarding the site's history and DEM's tentative decision to terminate the RIPDES permit RI0020150 may be found in the Statement of Basis for this permit termination, 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:

Ekaterini Papazekos, Environmental Engineering Associate
Rhode Island Department of Environmental Management
Office of Water Resources
235 Promenade Street
Providence, Rhode Island 02908-5767
(401) 537-4036
Email: ekaterini.papazekos@dem.ri.gov

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 Ekaterini Papazekos as 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 4:00 p.m., Wednesday, May 7, 2025, a public hearing will be held at the following time and place:

5:00 PM Wednesday, May 14, 2025
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 individuals who are handicapped. If communication assistance (readers/interpreters/captioners) is needed, or any other accommodation to ensure equal participation, please call Ekaterini Papazekos or RI Relay 711 at least three (3) business days prior to the meeting so arrangements can be made to provide such assistance at no cost to the person requesting.

Interested parties may submit comments on the permit actions and the administrative record to the address above no later than 4:00 p.m. on Friday, May 16, 2025.

If, during the public comment period, significant new questions are raised concerning any of the permits, 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 250-RICR-150-10-1.42 of the Regulations for the Rhode Island Pollutant Discharge Elimination System. The public comment period is from Monday, April 7, 2025 to Friday, May 16, 2025. 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 250-RICR-150-10-1.50 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

31 March 2025
Date

Heidi Travers
Heidi Travers, P.E.
Environmental Engineer IV
RIPDES, Office of Water Resources
Department of Environmental Management

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,

**Warwick Mall**
400 Bald Hill Road, Suite 100
Warwick, RI 02886

is authorized to discharge from a facility located at the

**Warwick Mall**
100 West Natick Road
Warwick, Rhode Island 02886

to receiving waters named

**Pawtuxet River Main Stem**

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 July 10, 2019.

This permit consists of seventeen (17) pages in Part I including effluent limitations, monitoring requirements, etc. and eight (8) pages in Part II including General Conditions.

Signed this _____ day of _____ 2025.



Joseph B. Haberek, P.E., Administrator of Surface Water Protection
Office of Water Resources
Rhode Island Department of Environmental Management
Providence, Rhode Island

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial numbers 001A, 001B, 001C, 002A, 003A, and 003B. The permittee shall monitor the discharges from outfalls 001B, 001C, 002A, 003A, and 003B.

| Effluent Characteristic | Discharge Limitations | | | | | Monitoring Requirement | |
|---|---|---|---|---|---|---|---|
| | Quantity – lbs./day | | Concentration – Specify Units | | | | |
| | Average Monthly | Maximum Daily | Average Monthly | Minimum | Maximum | Measurement Frequency | Sample Type |
| **Flow** | | -- MGD | | | | 2 samples/6-Months[3] | Calculated[1] |
| **TSS** | | | | --- mg/L | --- mg/L | 2 samples/6-Months[3] | Grab[2] |
| **Enterococci**[4] | | | | --- cfu/100 mL | --- cfu/100 mL | 2 samples/6-Months[3] | Grab[2] |
| **Oil and Grease** | | | | --- mg/L | --- mg/L | 2 samples/6-Months[3] | Grab[2] |
| **Lead, Total**[4] | | | | --- mg/L | --- mg/L | 2 samples/6-Months[3] | Grab[2] |
| **Zinc, Total** | | | | --- mg/L | --- mg/L | 2 samples/6-Months[3] | Grab[2] |

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

[1]Flow shall be calculated using the drainage area, runoff coefficient, and the amount of rainfall.

[2]The Grab or "First Flush" value shall be obtained using a grab sample, consisting of an individual sample of at least 100 mL, collected during the first thirty (30) minutes of a discharge. A grab sample can be taken during the first hour of discharge, and the discharger shall submit a description of why a sample during the first thirty (30) minutes was impracticable.

[3]Monitoring is required twice per each 6-month interval (January 1 through June 30 and July 1 through December 31). Each monitoring event must be conducted during a representative and measurable storm event that follows the preceding monitoring event by at least thirty (30) days. Samples must be obtained from a discharge which is the result of a representative storm event that occurs at least forty-eight (48) hours after the previously measurable (greater than 0.1 inches in magnitude) storm event. A representative storm event should be within 50% of the average Rhode Island storm event (0.7 inches in depth and 12 hours in duration) for both depth and duration, but in no case less than 0.1 inches per twenty-four (24) hours.

[4]After two (2) consecutive monitoring periods (i.e., 12 consecutive months and at least four samples), if the pollutant is not detected in the discharge (i.e., non-detect using sufficiency sensitive detection limits), after notifying the Department ***and*** receiving written approval from the Department, the permittee may discontinue monitoring unless a TMDL or other water quality determination has specific instructions to the contrary, in which case the permittee must follow those instructions. Written notification must include a cover letter and an analytic sampling report.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: 001B (42” reinforced concrete pipe that collects stormwater runoff from the outfall 001 drainage area), 001C (24” reinforced concrete pipe that collects stormwater runoff from the northern portion of the outfall 001 drainage area), 002A (36” reinforced concrete pipe that collects stormwater runoff from the outfall 002 drainage area), 003A (24” reinforced concrete pipe that collects stormwater runoff from the southern portion of the outfall 003 drainage area), and 003B (36” reinforced concrete pipe that collects stormwater runoff from the northern portion of the outfall 003 drainage area).

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

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

4. 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 µg/L);

      (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/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 reported for that pollutant in the permit application in accordance with 40CFR122.21(g)(7); or

      (4) Any other notification level established by the Director in accordance with 40CFR122.44(f) and Rhode Island Code of 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 not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

      (1) Five hundred micrograms per liter (500 µg/L);

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

      (3) Ten (10) times the maximum concentration reported for that pollutant in the permit application in accordance with 40CFR122.21(g)(7); or

      (4) Any other notification level established by the Director in accordance with 40CFR122.44(f) and Rhode Island Code of 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.

5. This permit authorizes the discharge of stormwater runoff and the following allowable non-stormwater discharges only:

   a. firefighting activities;

   b. fire hydrant flushings;

   c. external building washdowns that do not use detergents or hazardous cleaning products (such as those containing bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols) and do employ appropriate control measures to minimize discharges of mobilized solids and other pollutants;

   d. lawn watering;

e. uncontaminated ground water, springs;

f. air conditioning condensate;

g. potable waterline flushings;

h. irrigation drainage;

i. foundation or footing drains where flows are not contaminated with process materials, such as solvents, or contaminated by contact with soils, where spills or leaks of toxic or hazardous materials has occurred.

j. Water sprayed for dust control;

k. Uncontaminated utility vault dewatering; dechlorinated waterline testing water; hydrostatic test water that does not contain any treatment chemicals and is not contaminated with process chemicals;

l. Pavement wash waters, provided that detergents or hazardous cleaning products are not used (e.g., bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols), and the wash waters do not come into contact with oil and grease deposits, sources of pollutants associated with industrial activities, or any other toxic or hazardous materials, unless residues are first cleaned up using dry clean-up methods (e.g., applying absorbent materials and sweeping, using hydrophobic mops/rags), and for which appropriate control measures are in place to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement);

m. Discharges from washing of vehicles provided: chemicals, soaps, detergents, hazardous cleaning products (such as those containing bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols), steam, or heated water are not used; cleaning is restricted to the outside of the vehicle (e.g., no engines, transmissions, undercarriages, or truckbeds); or washing is not used to remove accumulated industrial materials, paint residues, heavy metals or any other potentially hazardous materials from surfaces; and

If any of these discharges may reasonably be expected to be present, they must be specifically identified and addressed in the facility's Stormwater Pollution Prevention Plan (SWPPP) required under Part I.B.

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

**B. STORMWATER POLLUTION PREVENTION PLAN REQUIREMENTS**

1. A Stormwater Pollution Prevention Plan (SWPPP) shall be implemented and maintained by the permittee. **The SWPPP dated March 2011 shall be amended and submitted to the DEM within ninety (90) days of the effective date of this permit.** The SWPPP shall be prepared in accordance with good engineering practices and identify potential sources of pollutants, which may reasonably be expected to affect the quality of stormwater discharges associated with the facility. In addition, the SWPPP shall describe and ensure the implementation of Best Management Practices (BMPs) that are to be used to reduce or eliminate the amount of pollutants in stormwater discharges associated with the facility and to assure compliance with the terms and conditions of this permit. Some of the specific BMPs that must be evaluated in the SWPPP are the reduction of peak runoff flows and volumes, reduction of impervious surfaces, restoration of natural buffers and drainage systems (e.g., overland flow and grassy swales),

infiltration of rooftop runoff, vacuum-assisted sweeping, and the use of permeable parking surfaces.

2. The SWPPP shall be signed by the permittee in accordance with the RIPDES Regulations (RI Code of Regulations: 250-RICR-150-10-1.12) and retained on-site. Upon request, the SWPPP shall also be made available to the Department of Environmental Management at any time.

3. If the SWPPP is reviewed by the Department of Environmental Management, the permittee may be notified at any time that the SWPPP does not meet one or more of the minimum requirements of this part. After such notification, the permittee shall make changes to the SWPPP and shall submit a written certification that the requested changes have been made. Unless otherwise provided by the Department of Environmental Management, the permittee shall have thirty (30) days after such notification to make the necessary changes.

4. The permittee shall immediately amend the SWPPP whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the State; a release of reportable quantities of hazardous substances and oil; or if the SWPPP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges. Changes must be noted and then submitted to the DEM within fourteen (14) days. Amendments to the Plan may be reviewed in the same manner as Part I.B.3 of this permit.

5. The SWPPP shall include, at a minimum, the following items:

   a. Description of Potential Pollutant Sources. The SWPPP must provide a description of potential sources which may be reasonably expected to add significant amounts of pollutants to stormwater discharges, or which may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. It must identify all activities and significant materials, which may potentially be significant pollutant sources. The SWPPP shall include:

      (1) A site map with a suitable scale (no smaller than 1"=100') that supports easy identification of the following items indicating:

         a. property boundaries and the overall size of the property in acres;

         b. a delineation of the drainage area of each stormwater outfall including the directions of storm water flow;

         c. a delineation of all surface water bodies in the vicinity of the facility;

         d. a delineation of all impervious surfaces, and the location of all significant structures;

         e. each existing stormwater control measure;

         f. locations of stormwater inlets and outfalls, with a unique identification code for each outfall (e.g., Outfall 001), identify if the outfall will be used as a stormwater monitoring point, and an approximate outline of the area draining to each outfall;

         g. locations where significant materials are exposed to stormwater, and locations of potential pollutant sources;

         h. locations where significant leaks or spills have occurred;

i. all separate storm sewers;

j. location and description of non-stormwater discharges;

k. the locations of the following activities where such areas are exposed to stormwater: fueling stations, vehicle and equipment maintenance and/or cleaning areas, loading/unloading areas, access roads and rail lines, material handling areas, material storage areas, process areas, and waste disposal areas;

(2) Location and source of runoff from adjacent property containing significant quantities of pollutants of concern to the facility and an evaluation of how the quality of the stormwater running onto the facility impacts the storm water discharges may be included. Provide a topographic map extending one-quarter of a mile beyond the property boundaries of the facility;

(3) An estimate of the overall runoff coefficient for the site, determined by an acceptable method, such as, but not limited to, area weighting;

(4) Receiving Waters and Wetlands. The name of the nearest receiving water(s) with waterbody identification number (if one is assigned), including intermittent streams, the areal extent and description of wetland that may receive discharges from the facility, impairments and a list of pollutants causing impairments if applicable.

(5) A narrative description of significant materials that have been treated, stored, or disposed of in a manner to allow exposure to stormwater in the past five (5) years; method of on-site storage or disposal; materials management practices employed to minimize contact of these materials with stormwater runoff in the past five (5) years; materials loading and access areas; the location and description of existing structural and non-structural control measures to reduce pollutants in stormwater runoff; and description of any treatment the stormwater receives;

(6) A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at the facility in the past five (5) years;

(7) A list of any pollutants limited in effluent guidelines to which a facility is subject under 40 CFR Subchapter N, any pollutants listed on a RIPDES permit to discharge process water, and any information required under the RIPDES Regulations (RI Code of Regulations: 250-RICR-150-10-1.11.D).

(8) For each area of the facility that generates stormwater discharges with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow and an estimate of the types of pollutants, which are likely to be present in stormwater including significant spills and leaks, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under CWA §311 (see 40 CFR 110.10 and 40 CFR 117.21) or section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA);

(9) A summary of existing sampling data describing pollutants in stormwater discharges from the facility;

b. Stormwater Management Controls. The permittee must develop a description of stormwater management controls appropriate for the facility and implement such controls. The appropriateness for implementing controls listed in the SWPPP must reflect identified potential sources of pollutants at the facility. The description of stormwater management

controls must address the following minimum components, including a schedule for implementing such controls:

(1) *Pollution Prevention Team.* The SWPPP must identify a specific individual(s) within the facility organization as members of a team that are responsible for developing the SWPPP and assisting in its implementation, maintenance, and revision. The SWPPP must clearly identify the responsibilities of each team member. The activities and responsibilities of the team must address all aspects of facility's SWPPP.

(2) *Risk Identification and Assessment/Material Inventory.* The SWPPP must assess the potential of various sources that contribute pollutants to stormwater. The SWPPP must also include an inventory of the types of materials handled. Each of the following must be evaluated for the reasonable potential for contributing pollutants to runoff: loading and unloading operations, outdoor manufacturing or processing activities, significant dust or particulate generating processes, and on-site waste disposal practices. Factors to consider include the toxicity of chemicals; quantity of chemicals used, produced, or discharged; the likelihood of contact with stormwater, and the history of significant leaks or spills of toxic or hazardous pollutants.

(3) *Preventative Maintenance.* A preventative maintenance program must involve inspection and maintenance of stormwater management devices (i.e., oil/water separators, catch basins) as well as inspecting and testing equipment and systems to uncover conditions that could cause breakdown or failures resulting in discharges of pollutants to surface waters. The SWPPP must include a preventative maintenance schedule for all components of the collection system. This schedule must include all of the minimum requirements from Part I.C of this permit.

(4) *Minimizing Exposure.* Where practicable, industrial materials and activities should be protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt, or runoff.

(5) *Good Housekeeping.* Good housekeeping requires the maintenance of a clean, orderly facility. The SWPPP must include a schedule for parking lot sweeping that addresses both floatables control and TSS removal. This schedule must comply with the minimum requirements of Part I.C.

a. Keep all exposed areas free of solid waste, garbage, and floatable debris. Solid waste, garbage and floatable debris must be stored and disposed of in such way that prevents exposure;

b. Use all known, available and reasonable methods to prevent rodents, birds, and other animals from feeding/nesting/roosting at the facility;

c. Install structural source control BMPs to address on-site activities and sources that could cause bacterial/pathogen contamination (e.g., dumpsters, compost piles, food waste and animal products).

(6) *Spill Prevention and Response Procedure.* Areas where potential spills can occur, and their accompanying drainage points, must be identified clearly in the SWPPP. The potential for spills to enter the stormwater drainage system must be eliminated wherever feasible. Where appropriate, specific material handling procedures, storage requirements, and procedures for cleaning up spills must be identified in the SWPPP and be made available to the appropriate personnel. The necessary equipment to implement a clean-up must also be made available to personnel. The permittee shall immediately

notify the Department of Environmental Management of any chemical releases in excess of reportable quantities.

(7) *Stormwater Management.* The SWPPP must contain a narrative consideration of the appropriateness of traditional stormwater management practices. Based on an assessment of the potential of various sources to contribute pollutants to stormwater discharges (see Part I.B.5.b(2) of this permit), the SWPPP must also provide that measures, determined to be reasonable and appropriate, must be implemented and maintained.

(8) *Sediment Transport.* The SWPPP must identify the sanding/salting procedures and/or practices that will be used to minimize the discharge of pollutants from sanding/salting practices. Items to include are; sand/salt storage, application methods, application rates, and clean-up procedures.

(9) *Sediment and Erosion Prevention.* The SWPPP must identify areas which; due to topography, activities, or other factors; have a high potential for significant soil erosion and identify measures to limit erosion.

(10) *Employee Training.* Employee training programs must inform personnel responsible for implementing activities identified in the SWPPP, or otherwise responsible for stormwater management at all levels, of the components and goals of the SWPPP. Training should address topics such as spill response, good housekeeping, and material management practices. The SWPPP must identify periodic dates for such training.

(11) *Visual Inspections.* Qualified plant personnel must be identified to inspect designated equipment and site areas. Material handling areas must be inspected for evidence of, or the potential for, pollutants entering the drainage system. A tracking or follow up procedure must be used to ensure that the appropriate action has been taken in response to the inspection. Records of inspections must be maintained on site for at least five (5) years.

(12) *Record keeping and Internal Reporting Procedures.* Incidents such as spills, or other discharges, along with other information describing the quality and quantity of stormwater discharges must be included in the records. All inspections and maintenance activities must be documented and maintained on site for at least five (5) years.

c. Post-Construction Stormwater Management in New Development and Redevelopment. The permittee shall develop and implement a conceptual redevelopment plan that contains standards and criteria to address stormwater runoff from new development and redevelopment projects, as defined by the RIDEM Stormwater Management, Design, and Installation Rules (250-RICR-150-10-8). The plan must address direct discharges of stormwater to waters of the State in addition to the discharges to the storm drainage system. All new and redevelopment projects are required to meet the eleven minimum standards and comply with the specific performance criteria of the RIDEM Stormwater Management, Design, and Installation Rules (250-RICR-150-10-8). The post-construction program must include:

(1) Development and implementation of preferred strategies, which are to be incorporated into new projects. These strategies shall include a combination of Low Impact Development (LID) and, structural methods such as infiltration practices, sand filters, bioretention practices, vegetated swales and/or vegetated filter strips.

(2) Requirements that all controls to address post-construction runoff are consistent with the March 2015 State of Rhode Island Stormwater Design and Installation Manual (as

amended).

(3) Development of an Operation and Maintenance Plan to ensure the stormwater conveyance systems and management practices continue to function as designed.

(4) Strategies to provide groundwater recharge, water quality treatment, and where appropriate, preserving, enhancing, or establishing buffers along surface waterbodies and tributaries.

(5) Strategies to reduce runoff volume which may include minimizing impervious areas such as roads, parking, paving or other surfaces; encouraging infiltration of non-contaminated runoff; preventing channelization; encouraging sheet flow; and where appropriate, preserving, enhancing or establishing buffers along surface water bodies and tributaries.

6. Site Inspection. An annual site inspection must be conducted by appropriate personnel named in the SWPPP to verify that the description of potential pollutant sources required under Part I.B.5.a is accurate, that the drainage map has been updated or otherwise modified to reflect current conditions, and controls to reduce pollutants in stormwater discharges identified in the SWPPP are being implemented and are adequate. A tracking or follow up procedure must be used to ensure that the appropriate action has been taken in response to the inspections. Records documenting significant observations made during the site inspection must be retained as part of the SWPPP for a minimum of five (5) years from the date of inspection.

7. Consistency with Other Plans. Stormwater management controls may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the CWA or Best Management Practices (BMP) Programs otherwise required by a RIPDES permit and may incorporate any part of such plans into the SWPPP by reference.

**C. INSPECTIONS AND MAINTENANCE**

1. Inspections of the BMPs are to be conducted in a manner consistent with the SWPPP. Results of all inspections must be documented, and records retained on-site for a period of five (5) years.

2. Within 90 days of the effective date of this permit, the permittee shall install and maintain identification signs at all stormwater outfalls owned by the permittee. The permittee must place the signs at or near each stormwater outfall and ensure that the signs are easily readable. The signs must be a durable material, be at least 12 inches on each side, and contain both the outfall identification number from the permit (e.g., Outfall #001) and the words “stormwater outfall”. DEM notification that the signs have been installed must include a picture of each installed sign.

3. At a minimum, the following activities must be conducted at the specified frequency:

   a. Perform monthly inspections of any erodible surfaces for evidence of erosion and, if present, reseed and ensure that seed and mulch remain in place and are not washed from the soil surface until the area has been stabilized.

   b. Perform monthly inspection of outfalls for evidence of a failure in the stormwater controls to remove sediment, floatables, color, odor, foam, and/or oil from the discharge.

   c. Perform monthly inspections of any hazardous waste storage areas for evidence of leaks. All leaks must be repaired, and the spilled material cleaned out immediately.

   d. Perform monthly inspections of the facility for evidence of any spills of oil and/or gasoline.

Any spills must be cleaned up immediately and notification shall be provided in accordance with the SPCC Plan.

e. Perform monthly inspections of the facility to ensure that the good housekeeping measures identified in the SWPPP are being followed.

f. Inspect and monitor sediment accumulation in all catch basins and solids removal systems a minimum of monthly.

g. Remove sediment accumulation from all catch basins and solids removal systems when the sediment volume reaches the manufacturer's recommended "clean out" level and/or if there is a failure in the solids removal system. At a minimum, sediment must be removed from all catch basins and solids removal systems quarterly.

h. Perform monthly inspections of solid waste storage areas for evidence of leaks and/or spills. All leaks and spills must be repaired, and the spilled material cleaned out immediately.

i. The permittee is required to sweep all streets, roads, and parking areas within its regulated area a minimum of monthly. If it is determined that monthly sweeping is not adequate to control the amount of sediment and/or floatables being discharged from the facility, the permittee shall increase the frequency of sweeping. Any changes to the sweeping program and all documentation and supporting rationale should be reported to the DEM as part of the annual comprehensive site evaluation report required under Part I.F of this permit. Any requests to decrease the sweeping frequency must be approved by DEM in writing.

4. Sediment removal and erosion control maintenance must be performed in a manner consistent with the SWPPP. Any sediment removal and/or maintenance performed must be documented and records retained on-site for a period of five (5) years.

5. Quarterly Visual Assessment Procedures: Twice within the January 1-June 30 monitoring period and twice within the July 1-December 31 monitoring period for the entire permit term, (except as noted in Part I.E.), a stormwater sample from each outfall must be collected and a visual assessment of each of these samples must be conducted. These samples are not required to be collected consistent with 40 CFR Part 136 procedures but should be collected in such a manner that the samples are representative of the stormwater discharge.

   The visual assessment must be made:
   - Of a sample in a clean, clear glass, or plastic container, and examined in a well-lit area;
   - On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and the reason why it was not possible to take samples within the first 30 minutes must be documented. In the case of snowmelt, samples must be taken during a period with a measurable discharge from the site; and
   - For storm events, on discharges that occur at least 48 hours (2 days) from the previous discharge. The 48-hour (2-day) storm interval does not apply if it is documented that less than a 48-hour (2-day) interval is representative for local storm events during the sampling period.

The sample must be visually inspected for the following water quality characteristics:

- Color;
- Odor;
- Clarity;
- Floating solids;
- Settled solids;
- Suspended solids;
- Foam;
- Oil sheen; and
- Other obvious indicators of stormwater pollution.

Whenever the visual assessment shows evidence of stormwater pollution, the permittee must amend the SWPPP as described in Part I.B.4 of this permit.

## D. BENCHMARK MONITORING AND CORRECTIVE ACTIONS

1. The permittee shall compare all sampling results to the following benchmark monitoring concentrations. The following benchmark concentrations are only to be used to evaluate the overall effectiveness of the SWPPP and are not to be used as effluent limits:

| Parameter | Benchmark Concentration (mg/L) |
|---|---|
| TSS | 100 |
| Oil and Grease | 15 |
| Total Lead | 0.045 |
| Total Zinc | 0.08 |

2. On a yearly basis, the permittee shall calculate the annual average of all sampling data for each pollutant for the previous calendar year (January 1 – December 31). When calculating the annual average concentrations, pollutant concentrations that were reported as less than the minimum detection limit from Part I.G shall be replaced with zeros. If the annual average exceeds the applicable benchmark concentration and the permittee determines that the exceedance of the benchmark is not attributable solely to the presence of that pollutant in natural background, then the permittee must complete Corrective Actions as detailed in Appendix 1. The first year of a benchmark exceedance will result in Level One Corrective Actions with subsequent years of benchmark exceedances resulting in Level Two Corrective Actions and then Level Three Corrective Actions. Corrective Actions must be summarized and submitted to DEM with the annual Comprehensive Site Evaluation Report required under Part I.F with any amendments to the SWPPP. If the amendments will include changes to structural controls, the report must include a schedule for the implementation of the proposed structural modifications. Proposed changes to structural stormwater controls must be approved by the DEM prior to implementation. Upon DEM approval of the structural changes, the permittee shall implement them in accordance with the approved schedule.

## E. SAMPLING WAIVER

If the permittee is unable to collect samples, due to adverse climactic conditions, which create dangerous conditions for personnel or otherwise makes the collection of a sample impractical, the permittee may submit in lieu of sampling data a description of why samples could not be collected.

The Permittee is prohibited from exercising this waiver more than once during a two (2) year period. A waiver is not required when there is no discharge, due to a lack of sufficient precipitation, during a given monitoring period.

## F. ANNUAL COMPREHENSIVE SITE EVALUATION

In accordance with Part I.B.6, an annual comprehensive site evaluation report must be prepared which summarizes the results of the site inspections required under the SWPPP. This report must include the names of the personnel who conducted the inspections, any major or recurring observations noted in the inspections, and any maintenance performed on the erosion and sedimentation control measures.

The Annual Comprehensive Site Evaluation Report shall also include a summary of any benchmark exceedances from the previous year along with the level of corrective actions that are required in accordance with Appendix 1 of this permit.

The annual comprehensive site evaluation report for a given calendar year must be submitted to the DEM at the following address by January 15th of the following year:

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

## G. DETECTION LIMITS

The permittee shall assure that all testing required by this permit is performed in conformance with the method detection limits listed below (the EPA method is noted for reference, other EPA approved methods found in 40 CFR Part 136 may be utilized). 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 submitted along with the monitoring reports.

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 submitted along with the monitoring report. 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.

Therefore, all sample results shall be reported as: an actual value, "could not be analyzed", less than the reagent water MDL, or less than an effluent or sludge specific MDL. 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.

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 included as zeros.

## 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 µg/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 µg/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 µg/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 µg/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 µg/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 |

* Polynuclear Aromatic Hydrocarbons

| OTHER TOXIC POLLUTANTS | MDL µg/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 | 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, Free Available | 10.0 |
| Phenols, Total | 50.0 |
| TCDD | ** |
| MTBE (Methyl Tert Butyl Ether) | 1.0 |

** 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).

## H. 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 submit its time period monitoring data in discharge monitoring reports (DMRs) to DEM electronically using NetDMR per the following schedule:

| Time Period Testing to be Performed | Report Due No Later Than | Results Submitted on DMR for |
|---|---|---|
| January 1 – June 30 | July 15 | January 1 – June 30 |
| July 1 – December 31 | January 15 | July 1 – December 31 |

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
- Benchmark Comparison

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.

(1) Transfer of Permit Notice
(2) Annual Comprehensive Site Inspection Report (January 15 each year)
(3) Written notifications required under Part II (as needed)
(4) Notice of unauthorized discharges (as needed)
(5) Updated SWPPP (90 days after the effective date of this permit and as needed according to Part 1.D.2, Part I.B.4, and Appendix 1)
(6) Install Stormwater Outfall Identification Signs (90 days after the effective date of this permit)
(7) Request to discontinue monitoring (as needed)

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.(l)(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.

**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 46-12-13 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 $25,000 per day of such violation. Chapter 46-12-14(a) of the Rhode Island General Laws provides that any person who willfully or with criminal negligence violates a permit condition is subject to a criminal penalty of not more than $25,000 per day of such violation or imprisonment for not more than five (5) years, or both. Chapter 46-12-14(b) of the Rhode Island General Laws provides that 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. Page 3 of 10

**(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.

(3) 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 46-12-14(b) 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 250-RICR-150-10-1.12 of the Rhode Island Pollutant Discharge Elimination System (RIPDES) Regulations. Rhode Island General Laws, Chapter 46-12-14(b) provides that any person who knowingly makes any false statement, representation, or certification in any application, record, report (including monitoring reports or reports of compliance or noncompliance), plan, or other document filed or required to be maintained under this permit, shall, upon conviction, be punished by a fine of not more than $5,000 for each instance of 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 250-RICR-150-10-1.14(R) 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 250-RICR-150-10-1.14(R) of the RIPDES Regulations; and

(d) The permittee complied with any remedial measures required under 250-RICR-150-10-1.14(E) 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, 235 Promenade Street, Providence, Rhode Island 02908. 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 250-RICR-150-10-1.16 and 250-RICR-150-10-1.24 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 250-RICR-150-10-1.50 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 |
| µg/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 |

**APPENDIX 1: CORRECTIVE ACTIONS**

**1. Corrective Actions Based on Exceedance of Benchmark(s)**

**a. Level One Corrective Actions - Operational Source Control BMPs**. Following the completion of the first full calendar year of monitoring (January through December) with the average of the required benchmark monitoring results exceeding an applicable benchmark value, and the permittee determines that exceedance of the benchmark is not attributable solely to the presence of that pollutant in the natural background, the permittee must complete Level One Corrective Actions.

(1) For each parameter exceeded, the facility must complete the following corrective actions within fourteen (14) calendar days of receipt of the monitoring results. If it is infeasible to complete the corrective action within 14 calendar days, the permittee must document why it is infeasible to complete the corrective action within the 14-day timeframe. The permittee must also identify the schedule for completing the work, which must be done as soon as practicable after the 14-day timeframe but no longer than 45 calendar days after discovery:

a) Review the SWPPP and ensure that it fully complies with Part I.B of this permit.

b) Conduct an inspection to investigate the cause of the exceedance and to evaluate industrial pollutant sources at the facility that are or may be related to the benchmark exceedance(s).

c) Make appropriate revisions to the SWPPP and implement additional Operational Source Control BMPs with the goal of achieving the applicable benchmark value(s) in future discharges.

(2) Summarize the Level One Corrective Actions in the Annual Comprehensive Site Evaluation Report. Include a detailed description of the SWPPP revisions, any alterations or modifications to the existing BMPs, and any additional BMPs **for each benchmark exceedance.**

(3) Examples of Operational Source Control BMPs include, but are not limited to, increasing sweeping, conducting employee training, increasing inspection frequency, modifying the storage location of the pollutant source away from drainage path to the storm water drain network, limiting the amount of time potential pollutant sources are stored to prevent degradation and leachate, etc.

**b. Level Two Corrective Actions – Structural Source Control BMPs.** Following the completion of the second year of monitoring with the average of the required 4 benchmark(s) monitoring results exceeding an applicable benchmark, the permittee must complete Level 2 Corrective Actions for each parameter exceeded in accordance with the following:

(1) Review the SWPPP and ensure that it fully complies with Part I.B of this permit.

(2) Make appropriate revisions to the SWPPP to include additional Structural Source Control BMPs with the goal of achieving the applicable benchmark value(s) in future discharges.

(3) Fully implement the SWPPP and Structural Source Control BMPs as soon as possible but no later than six months following the second benchmark monitoring year.

a) If installation of Structural Source Control BMPs within six months is not feasible, the

permittee may request an extension for the construction of the Structural Source Control BMPs.

b) If the permittee determines that installation of Structural Source Control BMPs is not necessary to prevent future benchmark exceedance(s), the permittee may request a waiver from this requirement by submitting to the Director a detailed explanation and technical basis for the request, no later than 45 days following the end of the second monitoring year that exceeds benchmarks. The waiver is subject to DEM's approval. For benchmark monitoring conducted prior to the full implementation and construction of Structural Source Control BMPs associated with Level 2 corrective actions, benchmark exceedances (for the same parameter) do not count towards additional Level 2 Corrective Actions.

c) Summarize the Level 2 Corrective Actions in the Annual Comprehensive Site Evaluation Report. Include a detailed description of the SWPPP revisions, any alterations or modifications to the existing BMPs, and any additional BMPs for each benchmark exceedance.

(4) Examples of Structural Source Control BMPs include, but are not limited to, modifying processes, storage, or handling of the pollutant, using recirculating wash systems, using roofs, canopies, and shed to cover piles, paving spill areas to facilitate cleaning, elevating storage areas, diverting runoff, building secondary containment, etc.

**c. Level Three Corrective Actions – Treatment BMPs.** If the average of the 4 benchmark(s) monitoring results, conducted after level 2 corrective actions have been fully implemented and completed, exceeds an applicable benchmark, the permittee must complete Level Three Corrective Actions for each parameter exceeded in accordance with the following:

(1) Review the SWPPP and ensure that it fully complies with Part B of this permit.

(2) Make appropriate revisions to the SWPPP to include modifications/alterations to the existing treatment BMPs and/or installation of additional Treatment BMPs with the goal of achieving the applicable benchmark value(s) in future discharges. Fully implement the SWPPP and modifications/enhancements of existing BMPs and/or construction of additional Treatment BMPs as necessary, as soon as possible but no later than six months following the Level 3 benchmark monitoring year, unless:

a) Installation of Treatment BMPs within six months is not feasible, in which case the permittee may request an extension for the construction of the Treatment BMPs.

b) The permittee determines that modifications and/or alterations of existing Treatment BMPs or installation of Treatment BMPs are not feasible or necessary to prevent future benchmark exceedance(s), in which case the permittee may request a waiver from this requirement by submitting to the Director a detailed explanation and technical basis for the request, no later than 30 days following the end of the Level 3 benchmark monitoring year.

c) The waiver is subject to DEM's approval. If the waiver is approved, the permittee will not be required to submit a Level Three Corrective Action Report under Part E.3.b.

(3) Summarize the Level Three Corrective Actions in the Annual Comprehensive Site Evaluation Report. Include information on how monitoring, assessment or evaluation information was (or will be) used to determine whether existing Treatment BMPs will be modified/enhanced, or if new/additional Treatment BMPs will be installed.

(4) Examples of Treatment BMPs include, but are not limited to, constructing vegetative buffer strips to capture sediment particles, constructing wet vegetative treatment systems (i.e., bioretention with underdrain), installing of filtering media, etc.

**2. Other Actions Requiring SWPPP Review**

a. The permittee must review and revise the SWPPP to ensure benchmarks are met, when any of the following conditions occur or are detected during an inspection, monitoring or other means, or the Department, EPA or the operator of the MS4 through which the permittee discharges informs the permittee that any of the following conditions have occurred, the permittee must review and revise, as appropriate, the SWPPP (e.g., sources of pollution, spill and leak procedures, non-stormwater discharges, selection, design, installation and implementation of your control measures) so that this permit's effluent limits are met and pollutant discharges are minimized:

(1) The permittee becomes aware, or the Director determines, that the control measures are not stringent enough for the discharge to meet applicable water quality standards or the non-numeric effluent limits in this permit;

(2) A required control measure was never installed, was installed incorrectly, or not in accordance with Parts II. and/or VIII., or is not being properly operated or maintained;

(3) Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam); or

(4) Whenever Indicator Parameter monitoring shows evidence of ineffective control of stormwater pollution.

b. The permittee must review the SWPPP (e.g., sources of pollution, spill and leak procedures, non-stormwater discharges, selection, design, installation, and implementation of the control measures) to determine if modifications are necessary to meet the effluent limits in this permit. If construction or a change in design, operation, or maintenance at the facility significantly changes the nature of pollutants discharged in stormwater from the facility, or significantly increases the quantity of pollutants discharged, the SWPPP must be revised.

c. Deadlines

(1) Immediate Actions. The permittee must document the discovery of any of the conditions listed in Parts 2.a. and 2.b. within 24 hours of making such discovery. If corrective action is needed, the permittee must immediately take all reasonable steps necessary to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational, including cleaning up any contaminated surfaces so that the material will not discharge in subsequent storm events.

Note: In this context, the term "immediately" requires you to, on the same day a condition requiring corrective action is found, take all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational. However, if a problem is identified at a time in the work day when it is too late to initiate corrective action, the initiation of corrective action must begin no later than the following work day.

(2) Subsequent Actions. If the permittee determines that additional actions are necessary beyond those implemented pursuant to Part 2.c.(1), the permittee must complete the corrective actions (e.g., install a new or modified control and make it operational, complete the repair) before the next storm event if possible, and within 14 calendar days from the time of discovery of the corrective action condition. If it is infeasible to complete the corrective action within 14 calendar days, the permittee must document why it is infeasible to complete the corrective action within the 14-day timeframe. The permittee must also identify the schedule for completing the work, which must be done as soon as practicable after the 14-day timeframe but no longer than 45 days after discovery.

Where the corrective actions result in changes to any of the controls or procedures documented in the 24 SWPPP, the permittee must modify the SWPPP accordingly within 14 calendar days of completing corrective action work.

These time intervals are not grace periods, but are schedules considered reasonable for documenting the findings and for making repairs and improvements. They are included in this permit to ensure that the conditions prompting the need for these repairs and improvements are not allowed to persist indefinitely.

d. The permittee must document the existence of any of the conditions listed in Parts 2.a. and 2.b. within 24 hours of becoming aware of such condition. Include the following information in your documentation:

- Description of the condition triggering the need for corrective action review. For any spills or leaks, the following information must be included: a description of the incident including material, date/time, amount, location, and reason for spill, and any leaks, spills or other releases that resulted in discharges of pollutants to waters of the State;

- Date the problem was identified; and

- Description of immediate actions taken pursuant to Part 2.c.(1). to minimize or prevent the discharge of pollutants. For any spills or leaks, include response actions, the date/time clean-up completed, notifications made, and staff involved. Also include any measures taken to prevent the reoccurrence of such releases (see Part II.A.2.d.).

Within 14 days of discovery of any condition listed in Part III.B., the permittee must document the following information:

- The corrective actions taken or to be taken as a result of the conditions listed in Part III.B.1. or III.B.2. (or, for triggering events in Part III.B.2. where you determine that corrective action is not necessary, the basis for this determination);

- Notice of whether SWPPP modifications are required as a result of this discovery or corrective action;

- Date when corrective action was initiated; and

- Date corrective action was completed (or is expected to be completed). If applicable, document why it is infeasible to complete the necessary installations or repairs within the 14-day timeframe and document your schedule for installing the controls and making them operational as soon as practicable after the 14- day timeframe but not longer than 45 days after discovery.

The permittee must submit this documentation in an annual report as required in Part VII.D. and

retain a copy onsite with the SWPPP as required in Part V.I.

**3. Substantially Identical Outfalls**

If the event triggering corrective action is linked to an outfall that represents other substantially identical outfalls, the permittee's review must assess the need for corrective action for each outfall represented by the outfall that triggered the review or corrective action. Any necessary changes to control measures that affect these other outfalls must also be made before the next storm event if possible, or as soon as practicable following that storm event.

**4. Compliance with Other Ordinances, Laws and Permits**

The requirement to implement Corrective Actions does not remove the permittee's obligation to obtain any local, state, or federal approvals or permits required by ordinance or law and does not relieve the permittee from any duties owed to adjacent landowners with specific reference to any changes in drainage.

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

# STATEMENT OF BASIS

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

RIPDES PERMIT NO.: **RI0023175**

NAME AND ADDRESS OF APPLICANT:

**Warwick Mall**
400 Bald Hill Road, Suite 100
Warwick, RI 02886

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**Warwick Mall**
100 West Natick Road
Warwick, Rhode Island 02886

RECEIVING WATER: **Pawtuxet River – Main Stem**
WATERBODY ID: **RI0006017R-03**
CLASSIFICATION: **B1**

**STATEMENT OF BASIS TABLE OF CONTENTS**

## 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 water. The facility is engaged in the operation of a retail mall. The discharge consists of stormwater from the facility, various separate detached retail stores, a car care center, a movie theater, detached restaurants, and their associated parking lots.

## II. DESCRIPTION OF DISCHARGE

A quantitative description of the discharge in terms of significant effluent parameters based on DMR data from January 1, 2019, to December 31, 2024 is shown in Attachment A.

## III. PERMIT BENCHMARKS AND CONDITIONS

The effluent benchmark values of the permit, the monitoring requirements, and any implementation schedule (if required) may be found in the permit and the following attachments.

## IV. PERMIT BASIS AND EXPLANATION OF EFFLUENT BENCHMARK VALUE DERIVATION

### Facility Description

The Warwick Mall (facility) operates a major retail shopping site, which includes a mall, various separate detached retail stores, a car care center, a movie theater, and detached restaurants. The site is bounded by Interstate 295 and Bald Hill Road to the west, West Natick Road to the north, Route 5 to the northeast, residential apartments to the south, and the Pawtuxet River to the east. Some of the activities conducted at the facility are located in separate buildings from the main mall area and are leased from the facility by their respective operators. Stormwater runoff from these facilities enters catch basins and eventually discharges into the Pawtuxet River.

Outfalls that were identified in an August 1996 SWPPP (Stormwater Pollution Prevention Plan) were confirmed by the facility during a 2024 Shoreline Survey. Outfalls authorized by this permit for discharge are Outfall 001A (24” reinforced concrete pipe that collects stormwater runoff from the southern portion of the outfall 001 drainage area), 001B (42” reinforced concrete pipe that collects stormwater runoff from the outfall 001 drainage area), 001C (24” reinforced concrete pipe that collects stormwater runoff from the northern portion of the outfall 001 drainage area), 002A (36” reinforced concrete pipe that collects stormwater runoff from the outfall 002 drainage area), 003A (24” reinforced concrete pipe that collects stormwater runoff from the southern portion of the outfall 003 drainage area), and 003B (36” reinforced concrete pipe that collects stormwater runoff from the northern portion of the outfall 003 drainage area). See Attachment D for a map of the outfall locations.

A review of monitoring data from October 2006 through September 2011 performed during the reissuance of the facility’s 2012 permit revealed that outfalls 001A, 001B and 001C had similar effluent characteristics. That analysis also found that the sampling results for the monitoring period at outfalls 001A and 001B were below the benchmark values for all measured parameters except for pH, which exceeded benchmarks due to acid rain. Since the drainage area for outfall 001A was much smaller than 001B, the monitoring requirements for outfall 001A were eliminated from Part I.A.1 when the permit was reissued in 2012. Therefore, this permit continues to require monitoring at outfalls 001B, 001C, 002A, 003A, and 003B.

### Receiving Water Description

The waterbody that receives the discharge from Warwick Mall is the Pawtuxet River Main Stem, located in Warwick, West Warwick, and Cranston. The waterbody identification number for the Pawtuxet River is RI0006017R-03. This waterbody segment is delineated by the confluence of the North and South Branches

at Riverpoint to the Pawtuxet Cove Dam[1] at Pawtuxet. This segment of the Pawtuxet River is listed on DEM's 2024 303(d) List of Impaired Water Bodies (dated April 2024) as being impaired for Lead, Enterococcus, Non-Native Plants, and Mercury in Fish Tissue. In 2022, the impairment for lead was added, while an impairment for total phosphorus was removed.

The waterbody segment for the Pawtuxet River is classified as a Class B1 waterbody according to the Rhode Island Water Quality Regulations. Class B1 waters are designated for primary and secondary contact recreation 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. Class B1 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.

**Permit Requirement (Benchmarks and BMPs) Development**

In 1972, the Federal Water Pollution Control Act, also referred to as the Clean Water Act (CWA), was amended to provide that the discharge of pollutants to waters of the United States from any point source is prohibited unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) Permit. Amendments to the CWA in 1987 added Section 402(p) to the Act, which established a framework for regulating discharges of stormwater under the NPDES program. In 1990, EPA issued final regulations that established application requirements for stormwater permits, commonly referred to as Phase I Stormwater Rules. These rules required owners or operators of specific categories of industrial facilities, which discharge stormwater directly to the waters of the United States or indirectly through a separate storm sewer system via a point source conveyance, to apply for a NPDES stormwater permit. The State of Rhode Island has been delegated by EPA and is authorized to issue permits under the RIPDES Program to cover point source discharges of pollutants. In 1993 RIDEM amended the RIPDES Regulations (RI Code of Regulations: RICR-150-10-1) to include Stormwater Rules.

In 1994 the DEM designated the facility as a significant contributor of pollutants to the Pawtuxet River. This determination was made because the Pawtuxet River, on which the facility is located, is a heavily urbanized river that is impacted by pollution from contaminated stormwater runoff. Based upon a review of the DEM's Technical Reports #1 and #2 in Support of the Pawtuxet River Basin Plan, titled "Stormwater Runoff Loadings and Impervious Area Calculations in the Pawtuxet River Basin" and "An Evaluation of Storm Drainage Systems in the Pawtuxet River Basin", it was determined that the above-mentioned facility is one of the largest commercial developments in the receiving water's river segment and, as a result, was a significant contributor of stormwater pollutants to the Pawtuxet River. Therefore, in accordance with the RIPDES Regulations (RI Code of Regulations: RICR-150-10-1-32.A.1.g), the facility was required to apply for an individual RIPDES permit.

When developing effluent limits for RIPDES Permits, DEM is required to consider limits based on the technology available to treat the pollutants (technology-based limits) and limits that are protective of the designated uses of the receiving water (water quality-based limits). EPA and DEM regulations require RIPDES permits to contain effluent limits that are more stringent than technology-based limits where more stringent limits are necessary to maintain or achieve Federal or State water quality standards. The permit must also limit any pollutants that are or may be discharged at levels that caused, have the reasonable potential to cause, or contribute to an excursion above any water quality criterion. An excursion occurs if the projected or actual in stream concentrations exceed the applicable criterion.

Effluent limitations are not defined exclusively as numeric Water-Quality Based Effluent Limitations (WQBELs). To the contrary, Section 502 of the CWA defines "effluent limitations" as "any restriction established by a State or the Administrator on quantities, rates, and concentrations of … other constituents which are discharged from point sources". Therefore, although RIPDES permits must contain conditions to

[1] Pawtuxet Cove Dam was removed in 2011. The waterbody description will be updated in the next update to the Water Quality Regulations.

ensure that water quality standards are met, DEM can use narrative conditions and best management practices (BMPs) to achieve this requirement. These BMPs may include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

This concept is further outlined in the EPA's *Interim Permitting Approach for Water Quality-Based Effluent Limitations in Stormwater Permits* guidance document. This document states that it is appropriate for stormwater discharge permits to "use best management practices (BMPs) in first-round stormwater permits and expanded or better-tailored BMPs in subsequent permits, where necessary". The EPA supports the use of BMP-based permits since "numeric limitations for stormwater permits can be very difficult to develop at this time because of the existing state of knowledge about the intermittent and variable nature of these types of discharges and their effects on receiving waters" and since the current methodologies for developing WQBELs "were designed primarily for process wastewater discharges which occur at predictable rates with predictable pollutant loadings under low flow conditions in receiving waters".

The RIPDES Regulations (RI Code of Regulations: RIPDES 250-RICR-150-10-1-16.A) state that each permit shall contain conditions, when applicable, to adopt BMPs to control or abate the discharge of pollutants when: authorized under Section 402(p) of CWA for the control of stormwater discharges. Therefore, this permit contains terms and conditions to ensure that the permittee implements appropriate BMPs and a SWPPP as the key strategies to assure compliance with water quality standards.

This permit authorizes the discharge of stormwater and certain allowable non-stormwater discharges. Non-stormwater discharges that are authorized under this permit are limited to those described in Part I.5 of the permit document. The list of allowable non-stormwater discharges has been updated from the list found in the 2019 permit to align with the allowable non-stormwater discharges in DEM's 2024 Multi-Sector General Permit (MSGP) for industrial stormwater as they reflect the operation of this facility. If any of those listed discharges may reasonably be expected to be present and to be mixed with stormwater discharges, they must be specifically identified and addressed in the facility's Stormwater Pollution Prevention Plan.

***Selection of Pollutants of Concern***

As indicated above, RIPDES permits may contain narrative conditions and best management practices (BMPs) to ensure that water quality standards will be met. These BMPs may include operating procedures and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage. However, it is necessary to identify the specific pollutants that will be used to monitor the permittee's effectiveness in implementing the BMPs. When determining the specific pollutants of concern, the DEM compared historical discharge data reported through NetDMR and the Pawtuxet River's list of impairments. The previous permit had evaluated the pollutant contributions of various pollutant sources in the watershed along with land use and impaired water status to determine that Total Suspended Solids (TSS), Total Lead, Total Zinc, Oil and Grease, pH, Total Phosphorus, and Enterococci were pollutants of concern that should be monitored. This permit requires monitoring for TSS, Total Lead, Total Zinc, Oil and Grease, and Enterococci.

TSS, Total Lead, and Total Zinc monitoring is required due to the potential presence of these pollutants in stormwater from facilities of this type. In addition, since stormwater is also a significant source of hydrocarbons due to the potential for runoff from commercial areas to contain automobile fluids, Oil and Grease monitoring is being maintained. Lastly, the main stem of the Pawtuxet River is listed as being impaired for enterococcus and lead in the 2024 Impaired Waters Report. Facilities discharging to an impaired water must monitor for all pollutants for which the waterbody is impaired, and for which a standard analytical method exists. Therefore, enterococcus and lead are pollutants of concern and must be monitored according to the appropriate analytical method described in 40 CFR Part 136.

DEM is removing monitoring requirements for total Phosphorus from this permit. For this permit, DEM compared Warwick Mall sampling data to the water quality criteria listed in the EPA Gold Book, which sets a total phosphorus goal in flowing waters of 100 µg/L or 0.1 mg/L. This numerical goal can be compared to the average daily maximum of phosphorus at each outfall during the last permit cycle, as seen in Attachment A,

to determine whether the facility is a significant contributor of phosphorus to the waterbody. For all outfalls, the five-year average daily maximum total phosphorous value is well below the goal listed by the EPA; therefore, the facility is not a significant contributor of phosphorus in the waterbody. Additionally, the waterbody is no longer impaired for phosphorus, as seen in the 2024 303(d) Impaired Waters Report.

DEM is also removing pH monitoring requirements from this permit. DEM reviewed the pH data submitted by this facility and found that the pH is periodically below the minimum benchmark. These excursions can be attributed to the causes outside of the facility's control (i.e., acid rain).

***Monitoring and Reporting Protocol***

Consistent with 250-RICR-150-10-1.14.K, the required monitoring protocols are described in the permit document in Part I.A and Part I.H.1. The monitoring protocol has been updated from the previous permit reissuance such that the current monitoring protocols are consistent with the 2024 MSGP. Changes to the monitoring protocol include a switch from quarterly to semi-annual monitoring and reporting (January through June and July through December). The permittee must collect two (2) samples per six (6) months. Additionally, the antecedent dry period requirement has been reduced from 72 hours (3 days) to 48 hours (2 days). This change intends to increase the number of sampling opportunities and improve flexibility for the facility to comply with the monitoring requirements. Part I.H.2 of the 2024 permit reissuance reflects the changes made to the reporting requirements. The reporting period has changed from quarterly reports to twice per year (once every six (6) months). Electronic reporting via NetDMR is required.

Benchmark exceedances during any single monitoring period no longer trigger a reevaluation of the SWPPP or its implementation. With the reissuance of this permit, corrective actions as described in Part I.D and Appendix 1 of the permit shall take effect if the average of a calendar year of monitoring results exceeds the benchmark value of any one pollutant.

***Water Quality-Based Permit Requirements***

Due to the intermittent nature of stormwater discharges, it is difficult to determine which pollutants may have reasonable potential to cause a water quality violation, Therefore, the DEM does not typically establish numeric water quality-based effluent limits for stormwater discharges. Instead, the DEM uses benchmark monitoring to monitor the quality of the stormwater discharges. Benchmark monitoring concentrations are not permit limits and are not directly correlated to water quality standards. Instead, they are generic pollutant levels that EPA developed to be protective of water quality under nearly all scenarios. The DEM applies these benchmarks across stormwater discharges covered by both individual and general permits. The 2024 MSGP was used as a basis for comparison. As described in the Fact Sheet for the 2024 MSGP, benchmarks are target concentrations that are intended to assist facilities in determining whether their pollution control measures are adequate to protect water quality. A benchmark exceedance does not necessarily indicate that a discharge is causing or contributing to a violation of an instream water quality standard, but it does require that the facility evaluate control measures and follow-up corrective actions by triggering a review of the facility's stormwater controls by modifying such controls as necessary.

Since TSS, Total Lead, Total Zinc, and Oil & Grease have been identified as pollutants of concern for this facility, based on their potential to cause adverse water quality impacts, benchmark concentrations for TSS, and Oil & Grease have maintained in this permit. Also as noted above, Total Phosphorus and pH monitoring have been removed from the permit. Enterococci and Total Lead monitoring remains in the permit due to the continued impairment status of the receiving water.

Benchmarks for Total Lead and Total Zinc are consistent with the benchmarks from the 2024 MSGP. The values for the Total Lead and Total Zinc benchmarks were selected using a hardness range of 50-75 mg/L as $CaCO_3$ from Table D-1 in Appendix D of the 2024 MSGP. DEM used hardness data collected between 2019 and 2022 by the United States Geological Survey (USGS) at Warwick Avenue, downstream of the facility. The $75^{th}$ percentile hardness value for the receiving water was 50.15 mg/L. Benchmarks for Total Lead and Total Zinc are higher in this permit than the previous permit because the hardness of the Pawtuxet River increased. Hardness data is attached to this document as Attachment B.

Historic annual average effluent data was compared to benchmarks, and that analysis, presented in Attachment C, has shown that this facility consistently met its applicable benchmark concentrations for Lead. The benchmark for Zinc was only met for about 24% of the samples. Therefore, the permit requires that the facility continue to implement its SWPPP and BMPs. When comparing Zinc and Lead monitoring data for the last 6 years to the updated benchmarks for Zinc and Lead, the facility meets its Zinc benchmarks 60% of the time and meets the Lead benchmark 100% of the time.

A permit condition has been added to Part 1.A.1 that allows permittee to discontinue monitoring for lead or enterococci if after two (2) consecutive monitoring periods (i.e., 12 consecutive months), all sample results are non-detect. The permittee must notify DEM in writing (i.e., cover letter and analytic reports). Sampling can only be eliminated after DEM provides written approval.

***Technology-Based Permit Requirements***

The above-mentioned facility is not subject to any federal effluent guidelines. Therefore, there are no technology-based limits for this discharge at this time.

***BPJ-Based Permit Requirements***

Based on best professional judgment, the DEM has assigned a requirement that the facility develop and implement a Stormwater Pollution Prevention Plan (SWPPP). The requirements for a facility's SWPPP have been updated and are listed in Part 1.B of the Permit.

**Antibacksliding and Antidegradation**

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***

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:

1. 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.

2. 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 asked is whether or not the receiving water is attaining the water quality standard. The DEM has determined the most appropriate evaluation of existing water quality is by calculating pollutant levels, which would result after the 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 DEM's "*Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations July 2006*" (the Policy) established 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 criteria exceeds the levels necessary to support the

propagation of fish, 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 Policy.

**Tier 2½**. Where high quality waters constitute Special Resource Protection Waters SRPWs[2], there shall be no measurable degradation of the existing water quality necessary to protect the characteristics 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 or 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, DEM 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 significant enough to require the important benefits demonstration described below. [If not then as a general rule DEM 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 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 in 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, DEM evaluates existing water quality by determining the pollutant levels which would result under the design conditions appropriate for the particular

[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.

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.

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

$$C_p = \frac{(DF - 1) \cdot C_B + (1 \cdot C_d)}{DF}$$

where: $C_b$ = background concentration[4]
$C_d$ = discharge data[5]
DF = dilution factor

Although this permit sets forth benchmark values as opposed to numerical limits, the antibacksliding and antidegradation policies still apply. The Total Lead and Total Zinc limits are less stringent than those set in the 2019 permit, yet antibacksliding regulations are still met. The benchmark values are calculated using the most recent five years of waterbody hardness data and have been updated to reflect the changes in ambient waterbody conditions. The limits themselves did not become less stringent, the waterbody simply falls under a different hardness range. Therefore, an increase in harness corresponds to less stringent lead and zinc limits without violating the Antibacksliding Provision.

**Additional Permit Requirements**

Consistent with the 2019 issuance of this permit, the 2024 permit requires that inspections of the stormwater controls be conducted in a manner consistent with the updated SWPPP requirements found in Part I.B of the permit. Key inspections and their minimum frequencies are indicated in the reissuance in Part I.C. An annual comprehensive site evaluation report is still required, submitted to the DEM by January 15th of each year, for the previous calendar year. These reports must summarize the results of the site inspections required under the permit. With the issuance of this permit, the facility must amend the current SWPPP to comply with the updated requirements described in Part I.B of the permit and submit this document to the DEM within 90 days.

Following any condition which triggers corrective actions, such as benchmark exceedances, the facility must implement corrective actions as described in Appendix 1 of the permit. These corrective actions are consistent with the 2024 MSGP. The facility is to follow the corrective action framework to prevent repeated benchmark exceedances. Additional corrective actions shall be implemented as necessary and as described in Appendix 1. Years without annual average benchmark exceedances do not require corrective actions. Corrective Actions must be summarized and submitted to DEM with the annual Comprehensive Site Evaluation Report. Should the required corrective actions require SWPPP amendments, the facility shall resubmit the updated SWPPP to the DEM.

The remaining general and specific conditions of the permit are based on the RIPDES Regulations (RI Code of Regulations: 250-RICR-150-10) as well as 40 CFR Parts 122 through 125 and consist primarily of requirements common to all stormwater permits.

**Permit Limit Summary**

Presented in Table 1 is a summary of the permit sampling frequencies.

[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 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.

Table 1: Final Permit Monitoring Requirements – Outfalls 001B, 001C, 002A, 003A, and 003B

| Parameter | Monthly Average | Weekly Average | Daily Maximum |
|---|---|---|---|
| **Flow** | --- MGD | | |
| **TSS** | | | --- mg/l |
| **Enterococci** | | | CFU/100 mL |
| **Oil and Grease** | | | --- mg/l |
| **Lead, Total** | | | --- mg/l |
| **Zinc, Total** | | | --- mg/l |

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

## 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 the RIPDES Regulations (RI Code of Regulations: 250-RICR-150-10-1.50).

## VI. 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:

Ekaterini Papazekos, E.I.T.
Associate Environmental Engineer
RIPDES Program

Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 537-4036

31 March 2025
Date

Heidi Travers
Heidi Travers, P.E.
Environmental Engineer IV
RIPDES Program
Office of Water Resources
Department of Environmental Management

## VII. ATTACHMENTS

**Attachment A: Average Effluent Characteristics by Outfall 2019-2024**

| EFFLUENT CHARACTERISTICS: Outfall 001B (2019-2024) | | |
|---|---|---|
| **PARAMETER** | **AVERAGE DAILY MAX** | **GREATEST DAILY MAX** |
| **Flow** | 0.686 MGD | 3.07 MGD |
| **Total Lead** | 0.00307 mg/L | 0.025 mg/L |
| **Oil & Grease** | 1.37 mg/L | 5.4 mg/L |
| **Phosphorus** | 0.0587 mg/L | 0.17 mg/L |
| **TSS** | 7.76 mg/L | 49.0 mg/L |
| **Total Zinc** | 0.0786 mg/L | 0.23 mg/L |

| EFFLUENT CHARACTERISTICS: Outfall 001C (2019-2024) | | |
|---|---|---|
| **PARAMETER** | **AVERAGE DAILY MAX** | **GREATEST DAILY MAX** |
| **Flow** | 0.0272 MGD | 0.119 MGD |
| **Total Lead** | 0.00294 mg/L | 0.025 mg/L |
| **Oil & Grease** | 1.16 mg/L | 2.5 mg/L |
| **Phosphorus** | 0.0706 mg/L | 0.17 mg/L |
| **TSS** | 8.96 mg/L | 57 mg/L |
| **Total Zinc** | 0.0643 mg/L | 0.25 mg/L |

| EFFLUENT CHARACTERISTICS: Outfall 002A (2019-2024) | | |
|---|---|---|
| **PARAMETER** | **AVERAGE DAILY MAX** | **GREATEST DAILY MAX** |
| **Flow** | 0.724 MGD | 3.25 MGD |
| **Total Lead** | 0.00291 mg/L | 0.025 mg/L |
| **Oil & Grease** | 12.0 mg/L | 168 mg/L |
| **Phosphorus** | 0.385 mg/L | 7.20 mg/L |
| **TSS** | 19.3 mg/L | 310 mg/L |
| **Total Zinc** | 0.116 mg/L | 0.49 mg/L |

| EFFLUENT CHARACTERISTICS: Outfall 003A (2019-2024) | | |
|---|---|---|
| **PARAMETER** | **AVERAGE DAILY MAX** | **GREATEST DAILY MAX** |
| **Flow** | 0.0663 MGD | 0.294 MGD |
| **Total Lead** | 0.00276 mg/L | 0.025 mg/L |
| **Oil & Grease** | 2.27 mg/L | 16 mg/L |
| **Phosphorus** | 0.0543 mg/L | 0.17 mg/L |
| **TSS** | 8.79 mg/L | 62 mg/L |
| **Total Zinc** | 0.0518 mg/L | 0.13 mg/L |

| EFFLUENT CHARACTERISTICS: Outfall 003B (2019-2024) | | |
|---|---|---|
| **PARAMETER** | **AVERAGE DAILY MAX** | **GREATEST DAILY MAX** |
| **Flow** | 1.30 MGD | 5.84 MGD |
| **Total Lead** | 0.00291 mg/L | 0.025 mg/L |
| **Oil & Grease** | 3.26 mg/L | 35 mg/L |
| **Phosphorus** | 0.0661 mg/L | 0.24 mg/L |
| **TSS** | 11.7 mg/L | 72 mg/L |
| **Total Zinc** | 0.0852 mg/L | 0.69 mg/L |

| EFFLUENT CHARACTERISTICS: pH (2019-2024) | | |
|---|---|---|
| **OUTFALL** | **MAXIMUM VALUE** | **MINIMUM VALUE** |
| **001B** | 6.88 S.U. | 4.93 S.U. |
| **001C** | 6.87 S.U. | 5.00 S.U. |
| **002A** | 7.20 S.U. | 5.50 S.U. |
| **003A** | 6.87 S.U. | 5.70 S.U. |
| **003B** | 6.71 S.U. | 4.40 S.U. |

**Attachment B: Ambient Waterbody Hardness Data – Pawtuxet River**

| Result ID | Organization | Waterbody | Station | StationType | SampleDate | Parameter | Result | Unit |
|---|---|---|---|---|---|---|---|---|
| 448771 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 1/30/2019 0:00 | Hardness | 20.4 | mg/L |
| 448774 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 4/24/2019 0:00 | Hardness | 21.7 | mg/L |
| 609962 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 2/15/2022 0:00 | Hardness | 23.8 | mg/L |
| 448773 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 3/25/2019 0:00 | Hardness | 26.8 | mg/L |
| 609940 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 5/7/2020 0:00 | Hardness | 26.8 | mg/L |
| 609963 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 3/15/2022 0:00 | Hardness | 26.9 | mg/L |
| 448772 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 2/27/2019 0:00 | Hardness | 29.2 | mg/L |
| 609952 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 4/28/2021 0:00 | Hardness | 29.4 | mg/L |
| 448784 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 2/27/2020 0:00 | Hardness | 29.5 | mg/L |
| 609959 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 11/18/2021 0:00 | Hardness | 31.2 | mg/L |
| 609955 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 7/22/2021 0:00 | Hardness | 31.8 | mg/L |
| 609961 | USGS | Pawtuxet River Main Stem | 1116617 | Grab | 1/21/2022 0:00 | Hardness | 32.3 | mg/L |
| 448777 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 7/24/2019 0:00 | Hardness | 33.8 | mg/L |
| 448782 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 12/17/2019 0:00 | Hardness | 34.3 | mg/L |
| 448783 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 1/27/2020 0:00 | Hardness | 34.5 | mg/L |
| 609964 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 4/18/2022 0:00 | Hardness | 34.6 | mg/L |
| 448776 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 6/26/2019 0:00 | Hardness | 35.7 | mg/L |
| 448775 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 5/29/2019 0:00 | Hardness | 35.9 | mg/L |
| 609941 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 5/28/2020 0:00 | Hardness | 37.2 | mg/L |
| 609954 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 6/24/2021 0:00 | Hardness | 37.6 | mg/L |
| 448780 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 10/30/2019 0:00 | Hardness | 38.1 | mg/L |
| 609960 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 12/17/2021 0:00 | Hardness | 38.5 | mg/L |
| 609951 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 3/22/2021 0:00 | Hardness | 39.2 | mg/L |
| 609948 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 12/15/2020 0:00 | Hardness | 39.8 | mg/L |
| 609957 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 9/28/2021 0:00 | Hardness | 39.9 | mg/L |
| 609947 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 11/23/2020 0:00 | Hardness | 40.6 | mg/L |
| 609950 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 2/23/2021 0:00 | Hardness | 41.1 | mg/L |
| 448781 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 11/26/2019 0:00 | Hardness | 42.3 | mg/L |
| 609949 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 1/26/2021 0:00 | Hardness | 43.3 | mg/L |
| 609958 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 10/25/2021 0:00 | Hardness | 43.4 | mg/L |
| 609953 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 5/26/2021 0:00 | Hardness | 45.4 | mg/L |
| 609956 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 8/26/2021 0:00 | Hardness | 46.6 | mg/L |
| 609966 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 6/21/2022 0:00 | Hardness | 49.9 | mg/L |

| Result ID | Organization | Waterbody | Station | StationType | SampleDate | Parameter | Result | Unit |
|---|---|---|---|---|---|---|---|---|
| 609967 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 7/19/2022 0:00 | Hardness | 50.9 | mg/L |
| 609946 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 10/28/2020 0:00 | Hardness | 53.4 | mg/L |
| 609965 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 5/16/2022 0:00 | Hardness | 55 | mg/L |
| 609944 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 8/26/2020 0:00 | Hardness | 58.6 | mg/L |
| 609942 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 6/22/2020 0:00 | Hardness | 59.1 | mg/L |
| 609943 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 7/30/2020 0:00 | Hardness | 63.1 | mg/L |
| 448778 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 8/28/2019 0:00 | Hardness | 63.2 | mg/L |
| 609969 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 9/19/2022 0:00 | Hardness | 65.9 | mg/L |
| 448779 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 9/25/2019 0:00 | Hardness | 67.1 | mg/L |
| 609945 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 9/22/2020 0:00 | Hardness | 72.8 | mg/L |
| 609968 | USGS | Pawtuxet River Main Stem | 1116617 | Composite | 8/15/2022 0:00 | Hardness | 74.6 | mg/L |

| | | | | | | |
|---|---|---|---|---|---|---|
| input: | percentile: | 0.75 | | hardness @ percentile: | 50.15 | mg/L |
| output: | Zn Benchmark: | 0.08 | mg/L | River ID = RI0006017R-03 | | |
| | Pb Benchmark: | 0.045 | mg/L | note: main river stem starts near the mall and goes downstream | | |

**Attachment C: Annual Benchmark Comparisons by Pollutant and by Outfall**

| Lead, total as Pb (mg/L) | | @ outfall 001B | @ outfall 001C | @ outfall 002A | @ outfall 003A | @ outfall 003B |
|---|---|---|---|---|---|---|
| qtr/annual | year | | | | | |
| 1 | 2019 | 0 | 0 | 0 | 0 | 0 |
| 2 | 2019 | 0 | 0 | 0 | 0 | 0 |
| 3 | 2019 | 0 | 0 | 0 | 0 | 0 |
| 4 | 2019 | N/A * | N/A * | N/A * | N/A * | N/A * |
| **annual ave** | **2019** | **0** | **0** | **0** | **0** | **0** |
| 1 | 2020 | 0 | 0 | 0 | 0 | 0 |
| 2 | 2020 | 0 | 0 | 0 | 0 | 0 |
| 3 | 2020 | N/A * | N/A * | N/A * | N/A * | N/A * |
| 4 | 2020 | 0 | 0 | 0 | 0 | 0 |
| **annual ave** | **2020** | **0** | **0** | **0** | **0** | **0** |
| 1 | 2021 | 0 | 0 | 0 | 0 | 0 |
| 2 | 2021 | 0 | 0 | 0 | 0 | 0 |
| 3 | 2021 | 0 | 0 | 0 | 0 | 0 |
| 4 | 2021 | 0 | 0 | 0 | 0 | 0 |
| **annual ave** | **2021** | **0** | **0** | **0** | **0** | **0** |
| 1 | 2022 | 0 | 0 | 0 | 0 | 0 |
| 2 | 2022 | 0.025 | 0.025 | 0.025 | 0.025 | 0.025 |
| 3 | 2022 | 0 | 0 | 0 | 0 | 0 |
| 4 | 2022 | 0 | 0 | 0 | 0 | 0 |
| **annual ave** | **2022** | **0.00625** | **0.00625** | **0.00625** | **0.00625** | **0.00625** |
| 1 | 2023 | 0 | 0 | 0 | 0 | 0 |
| 2 | 2023 | 0.006 | 0.005 | 0.01 | 0.005 | 0.0056 |
| 3 | 2023 | 0.005 | 0.005 | 0.0053 | 0.005 | 0.0056 |
| 4 | 2023 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 |
| **annual ave** | **2023** | **0.004** | **0.00375** | **0.00508** | **0.00375** | **0.00405** |
| 1 | 2024 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 |
| 2 | 2024 | 0.0065 | 0.005 | 0.0059 | 0.0059 | 0.01 |
| 3 | 2024 | 0.012 | 0.0082 | 0.005 | 0.0071 | 0.005 |
| 4 | 2024 | 0.0072 | 0.005 | 0.005 | 0.005 | 0.0064 |
| **annual ave** | **2024** | **0.00768** | **0.0058** | **0.00523** | **0.00575** | **0.0066** |

* quarters where the facility failed to sample and analysis was not conducted are not included in calculations.

Note: quarters with effluent values below MDL are shown as 0

# of annual exceedences shown are hypothetical - evaluated by comparing annual average effluent values by outfall to 2024 draft permit benchmarks.

| permit | benchmark (mg/L) | # exceedences |
|---|---|---|
| 2019 permit | 0.023 | 0 out of 30 |
| 2024 draft permit | 0.045 | 0 out of 30 |

| Oil & Grease (mg/L) | | @ outfall | @ outfall | @ outfall | @ outfall | @ outfall |
|---|---|---|---|---|---|---|
| qtr/annual | year | 001B | 001C | 002A | 003A | 003B |
| 1 | 2019 | 2.4 | 1.8 | 1.9 | 2.4 | 3.2 |
| 2 | 2019 | 1.3 | 1.8 | 168 | 1.4 | 2.5 |
| 3 | 2019 | 0.7 | 1 | 0 | 2.8 | 1.6 |
| 4 | 2019 | N/A * | N/A * | N/A * | N/A * | N/A * |
| **annual ave** | **2019** | **1.46667** | **1.53333** | **56.6333** | **2.2** | **2.43333** |
| 1 | 2020 | 2 | 2.1 | 5.2 | 3.5 | 4.2 |
| 2 | 2020 | 2.6 | 1.8 | 2.4 | 1.3 | 3.1 |
| 3 | 2020 | N/A * | N/A * | N/A * | N/A * | N/A * |
| 4 | 2020 | 3.8 | 1.1 | 2.7 | 1.3 | 2 |
| **annual ave** | **2020** | **2.8** | **1.66667** | **3.43333** | **2.03333** | **3.1** |
| 1 | 2021 | 0 | 2.4 | 1.3 | 0 | 2.4 |
| 2 | 2021 | 1.4 | 1.6 | 1.4 | 1.4 | 1.4 |
| 3 | 2021 | 0.52 | 0 | 0 | 0 | 0 |
| 4 | 2021 | 2 | 0.92 | 1 | 2.5 | 2 |
| **annual ave** | **2021** | **0.98** | **1.23** | **0.925** | **0.975** | **1.45** |
| 1 | 2022 | 1.2 | 0 | 1 | 3 | 0.76 |
| 2 | 2022 | 5.4 | 2.5 | 58 | 2.3 | 3.4 |
| 3 | 2022 | 0.8 | 0 | 0.84 | 1.6 | 0 |
| 4 | 2022 | 0 | 0 | 0 | 0 | 0.7 |
| **annual ave** | **2022** | **1.85** | **0.625** | **14.96** | **1.725** | **1.215** |
| 1 | 2023 | 0 | 0 | 0.56 | 2.1 | 2.1 |
| 2 | 2023 | 0.79 | 1.8 | 1.4 | 16 | 35 |
| 3 | 2023 | 0.76 | 1.1 | 2.4 | 0.79 | 0 |
| 4 | 2023 | 0.51 | 2.5 | 1.5 | 2 | 1.8 |
| **annual ave** | **2023** | **0.515** | **1.35** | **1.465** | **5.2225** | **9.725** |
| 1 | 2024 | 0.79 | 0.5 | 1 | 1.1 | 1.1 |
| 2 | 2024 | 0.89 | 0.69 | 1.1 | 1.3 | 1.1 |
| 3 | 2024 | 0.88 | 0.78 | 1.2 | 0.78 | 0 |
| 4 | 2024 | 0.7 | 0.6 | 2 | 1.3 | 0.6 |
| **annual ave** | **2024** | **0.815** | **0.6425** | **1.325** | **1.12** | **0.7** |

* quarters where the facility failed to sample and analysis was not conducted are not included in calculations.

Note: quarters with effluent values below MDL are shown as 0

# of annual exceedences shown are hypothetical - evaluated by comparing annual average effluent values by outfall to 2024 draft permit benchmarks.

| **permit** | **benchmark (mg/L)** | **# exceedences** |
|---|---|---|
| 2019 permit | 15 | 1 out of 30 |
| 2024 draft permit | 15 | 1 out of 30 |

| Total Suspended Solids (mg/L) | | @ outfall 001B | @ outfall 001C | @ outfall 002A | @ outfall 003A | @ outfall 003B |
|---|---|---|---|---|---|---|
| qtr/annual | year | | | | | |
| 1 | 2019 | 17 | 17 | 17 | 62 | 72 |
| 2 | 2019 | 13 | 16 | 310 | 30 | 47 |
| 3 | 2019 | 8 | 16 | 6.3 | 3.3 | 3.3 |
| 4 | 2019 | N/A * | N/A * | N/A * | N/A * | N/A * |
| **annual ave** | **2019** | **12.6667** | **16.3333** | **111.1** | **31.7667** | **40.7667** |
| 1 | 2020 | 7.3 | 15 | 22 | 12 | 14 |
| 2 | 2020 | 0 | 0 | 0 | 2.2 | 0 |
| 3 | 2020 | N/A * | N/A * | N/A * | N/A * | N/A * |
| 4 | 2020 | 0 | 3 | 8.7 | 2.3 | 4.3 |
| **annual ave** | **2020** | **2.43333** | **6** | **10.2333** | **5.5** | **6.1** |
| 1 | 2021 | 49 | 17 | 4.7 | 5.7 | 6.7 |
| 2 | 2021 | 5.3 | 6 | 4.7 | 9.3 | 20 |
| 3 | 2021 | 0 | 0 | 0 | 0 | 0 |
| 4 | 2021 | 3 | 2 | 3.7 | 8.7 | 3 |
| **annual ave** | **2021** | **14.325** | **6.25** | **3.275** | **5.925** | **7.425** |
| 1 | 2022 | 5.3 | 2.3 | 3.3 | 5.7 | 6.7 |
| 2 | 2022 | 22 | 19 | 2 | 8.3 | 8.7 |
| 3 | 2022 | 0 | 0 | 0 | 0 | 2.3 |
| 4 | 2022 | 3.8 | 0 | 0 | 0 | 4 |
| **annual ave** | **2022** | **7.775** | **5.325** | **1.325** | **3.5** | **5.425** |
| 1 | 2023 | 0 | 4 | 12 | 3.8 | 12 |
| 2 | 2023 | 0 | 57 | 0 | 72 | 25 |
| 3 | 2023 | 15 | 0 | 0 | 0 | 3.7 |
| 4 | 2023 | 0 | 0 | 0 | 0 | 0 |
| **annual ave** | **2023** | **3.75** | **15.25** | **3** | **18.95** | **10.175** |
| 1 | 2024 | 0 | 0 | 0 | 0 | 0 |
| 2 | 2024 | 8 | 2.8 | 3.3 | 3.3 | 12 |
| 3 | 2024 | 6.3 | 11 | 6.7 | 0 | 0 |
| 4 | 2024 | 8 | 7.3 | 16 | 12 | 12 |
| **annual ave** | **2024** | **5.575** | **5.275** | **6.5** | **3.825** | **6** |

* quarters where the facility failed to sample and analysis was not conducted are not included in calculations.

Note: quarters with effluent values below MDL are shown as 0

# of annual exceedences shown are hypothetical - evaluated by comparing annual average effluent values by outfall to 2024 draft permit benchmarks.

| **permit** | **benchmark (mg/L)** | **# exceedences** |
|---|---|---|
| 2019 permit | 100 | 1 out of 30 |
| 2024 draft permit | 100 | 1 out of 30 |

| Zinc, total as Zn (mg/L) | | @ outfall 001B | @ outfall 001C | @ outfall 002A | @ outfall 003A | @ outfall 003B |
|---|---|---|---|---|---|---|
| qtr/annual | year | | | | | |
| 1 | 2019 | 0 | 0 | 0 | 0.069 | 0.69 |
| 2 | 2019 | 0 | 0 | 0.113 | 0.068 | 0.13 |
| 3 | 2019 | 0.108 | 0.107 | 0.64 | 0 | 0 |
| 4 | 2019 | N/A * | N/A * | N/A * | N/A * | N/A * |
| **annual ave** | **2019** | **0.036** | **0.03567** | **0.251** | **0.04567** | **0.27333** |
| 1 | 2020 | 0.2 | 0.25 | 0.15 | 0.1 | 0.09 |
| 2 | 2020 | 0.13 | 0.073 | 0.35 | 0.035 | 0.044 |
| 3 | 2020 | N/A * | N/A * | N/A * | N/A * | N/A * |
| 4 | 2020 | 0.078 | 0.069 | 0.12 | 0.054 | 0.054 |
| **annual ave** | **2020** | **0.136** | **0.13067** | **0.20667** | **0.063** | **0.06267** |
| 1 | 2021 | 0.091 | 0.09 | 0.061 | 0.054 | 0.049 |
| 2 | 2021 | 0.11 | 0.12 | 0.12 | 0.08 | 0.085 |
| 3 | 2021 | 0 | 0.039 | 0.057 | 0.032 | 0.034 |
| 4 | 2021 | 0.13 | 0.055 | 0.12 | 0.13 | 0.13 |
| **annual ave** | **2021** | **0.08275** | **0.076** | **0.0895** | **0.074** | **0.0745** |
| 1 | 2022 | 0.045 | 0 | 0.072 | 0.049 | 0.035 |
| 2 | 2022 | 0.087 | 0.092 | 0.14 | 0.071 | 0.062 |
| 3 | 2022 | 0.091 | 0.093 | 0.11 | 0.049 | 0.048 |
| 4 | 2022 | 0.03 | 0.033 | 0.038 | 0.038 | 0.038 |
| **annual ave** | **2022** | **0.06325** | **0.0545** | **0.09** | **0.05175** | **0.04575** |
| 1 | 2023 | 0 | 0.0086 | 0.13 | 0.021 | 0.058 |
| 2 | 2023 | 0.01 | 0.065 | 0.027 | 0.072 | 0.061 |
| 3 | 2023 | 0.23 | 0.072 | 0.14 | 0.059 | 0.063 |
| 4 | 2023 | 0.036 | 0.032 | 0.031 | 0.013 | 0.032 |
| **annual ave** | **2023** | **0.069** | **0.0444** | **0.082** | **0.04125** | **0.0535** |
| 1 | **2024** | 0.078 | 0.14 | 0.071 | 0.074 | 0.075 |
| 2 | **2024** | 0.017 | 0.012 | 0.027 | 0.02 | 0.012 |
| 3 | **2024** | 0.18 | 0 | 0.49 | 0 | 0 |
| 4 | **2024** | 0.043 | 0.044 | 0.048 | 0.036 | 0.038 |
| **annual ave** | **2024** | **0.0795** | **0.049** | **0.159** | **0.0325** | **0.03125** |

* quarters where the facility failed to sample and analysis was not conducted are not included in calculations.

Note: quarters with effluent values below MDL are shown as 0

# of annual exceedences shown are hypothetical - evaluated by comparing annual average effluent values by outfall to 2024 draft permit benchmarks.

| **permit** | **benchmark (mg/L)** | **# exceedences** |
|---|---|---|
| 2019 permit | 0.05 | 21 out of 30 |
| 2024 draft permit | 0.08 | 10 out of 30 |

| Maximum pH (SU) | | @ outfall 001B | @ outfall 001C | @ outfall 002A | @ outfall 003A | @ outfall 003B |
|---|---|---|---|---|---|---|
| qtr/annual | year | | | | | |
| 1 | 2019 | 6.6 | 6.6 | 6.7 | 6.5 | 6.5 |
| 2 | 2019 | 6.5 | 5 | 6.1 | 6.2 | 6.2 |
| 3 | 2019 | 5.8 | 5.6 | 6 | 6.5 | 4.4 |
| 4 | 2019 | N/A * | N/A * | N/A * | N/A * | N/A * |
| **annual ave** | **2019** | **6.3** | **5.73333** | **6.26667** | **6.4** | **5.7** |
| 1 | 2020 | 6.4 | 6.8 | 6.6 | 6.7 | 6.6 |
| 2 | 2020 | 6.4 | 5.9 | 5.6 | 5.7 | 5.6 |
| 3 | 2020 | N/A * | N/A * | N/A * | N/A * | N/A * |
| 4 | 2020 | 6.6 | 6.6 | 6.5 | 6.5 | 6.6 |
| **annual ave** | **2020** | **6.46667** | **6.43333** | **6.23333** | **6.3** | **6.26667** |
| 1 | 2021 | 6.8 | 6.8 | 6.3 | 6.7 | 6.5 |
| 2 | 2021 | 6.7 | 6.7 | 6.5 | 6.5 | 6.5 |
| 3 | 2021 | 6.4 | 6.5 | 6.7 | 6.4 | 6.6 |
| 4 | 2021 | 6.3 | 6.3 | 5.5 | 6.2 | 6.3 |
| **annual ave** | **2021** | **6.55** | **6.575** | **6.25** | **6.45** | **6.475** |
| 1 | 2022 | 6.4 | 6.6 | 6.7 | 6.6 | 6.7 |
| 2 | 2022 | 5.5 | 5.6 | 6.2 | 6.1 | 6 |
| 3 | 2022 | 6.1 | 6.2 | 6.4 | 6.4 | 6.3 |
| 4 | 2022 | 6.6 | 6.5 | 6.4 | 6.3 | 6.2 |
| **annual ave** | **2022** | **6.15** | **6.225** | **6.425** | **6.35** | **6.3** |
| 1 | 2023 | 6.88 | 6.87 | 6.83 | 6.78 | 6.56 |
| 2 | 2023 | 6.73 | 6.22 | 7.2 | 6.51 | 6.35 |
| 3 | 2023 | 4.96 | 6.5 | 6.43 | 6.44 | 6.49 |
| 4 | 2023 | 4.93 | 6.19 | 6.26 | 6.38 | 6.49 |
| **annual ave** | **2023** | **5.875** | **6.445** | **6.68** | **6.5275** | **6.4725** |
| 1 | 2024 | 5.91 | 6.47 | 6.21 | 6.29 | 6.35 |
| 2 | 2024 | 6.58 | 6.72 | 6.54 | 6.52 | 6.58 |
| 3 | 2024 | 6.09 | 5.86 | 5.85 | 6.51 | 6.71 |
| 4 | 2024 | 5.99 | 5.86 | 5.02 | 5.92 | 5.99 |
| **annual ave** | **2024** | **6.1425** | **6.2275** | **5.905** | **6.31** | **6.4075** |

* quarters where the facility failed to sample and analysis was not conducted are not included in calculations.

Note: quarters with effluent values below MDL are shown as 0

# of annual exceedences shown are hypothetical - evaluated by comparing annual average effluent values by outfall to 2024 draft permit benchmarks.

| **permit** | **benchmark (SU)** | **# exceedences** |
|---|---|---|
| 2019 permit | 9 | 0 out of 30 |
| 2024 draft permit | 9 | 0 out of 30 |

| Minimum pH (SU) | | @ outfall 001B | @ outfall 001C | @ outfall 002A | @ outfall 003A | @ outfall 003B |
|---|---|---|---|---|---|---|
| qtr/annual | year | | | | | |
| 1 | 2019 | 6.6 | 6.6 | 6.7 | 6.5 | 6.5 |
| 2 | 2019 | 6.5 | 5 | 6.1 | 6.2 | 6.2 |
| 3 | 2019 | 5.8 | 5.6 | 6 | 6.5 | 4.4 |
| 4 | 2019 | N/A* | N/A* | N/A* | N/A* | N/A* |
| **annual ave** | **2019** | **6.3** | **5.73333** | **6.26667** | **6.4** | **5.7** |
| 1 | 2020 | 6.2 | 6.5 | 6.4 | 6.3 | 6.3 |
| 2 | 2020 | 6.4 | 5.9 | 5.6 | 5.7 | 5.6 |
| 3 | 2020 | N/A * | N/A * | N/A * | N/A * | N/A * |
| 4 | 2020 | 6.5 | 6.5 | 6.5 | 6.4 | 6.4 |
| **annual ave** | **2020** | **6.36667** | **6.3** | **6.16667** | **6.13333** | **6.1** |
| 1 | 2021 | 6.8 | 6.8 | 6.3 | 6.7 | 6.5 |
| 2 | 2021 | 6.7 | 6.7 | 6.5 | 6.5 | 6.5 |
| 3 | 2021 | 6.4 | 6.5 | 6.7 | 6.4 | 6.6 |
| 4 | 2021 | 6.3 | 6.3 | 5.5 | 6.2 | 6.3 |
| **annual ave** | **2021** | **6.55** | **6.575** | **6.25** | **6.45** | **6.475** |
| 1 | 2022 | 6.4 | 6.6 | 6.7 | 6.6 | 6.7 |
| 2 | 2022 | 5.5 | 5.6 | 6.2 | 6.1 | 6 |
| 3 | 2022 | 6.1 | 6.2 | 6.4 | 6.4 | 6.3 |
| 4 | 2022 | 6.6 | 6.5 | 6.4 | 6.3 | 6.2 |
| **annual ave** | **2022** | **6.15** | **6.225** | **6.425** | **6.35** | **6.3** |
| 1 | 2023 | 6.88 | 6.87 | 6.83 | 6.78 | 6.56 |
| 2 | 2023 | 6.73 | 6.22 | 7.2 | 6.51 | 6.35 |
| 3 | 2023 | 4.96 | 6.5 | 6.43 | 6.44 | 6.49 |
| 4 | 2023 | 4.93 | 6.19 | 6.26 | 6.38 | 6.49 |
| **annual ave** | **2023** | **5.875** | **6.445** | **6.68** | **6.5275** | **6.4725** |
| 1 | 2024 | 5.91 | 6.47 | 6.21 | 6.29 | 6.35 |
| 2 | 2024 | 6.58 | 6.72 | 6.54 | 6.52 | 6.58 |
| 3 | 2024 | 6.09 | 5.86 | 5.85 | 6.51 | 6.71 |
| 4 | 2024 | 5.99 | 5.86 | 5.02 | 5.92 | 5.99 |
| **annual ave** | **2024** | **6.1425** | **6.2275** | **5.905** | **6.31** | **6.4075** |

* quarters where the facility failed to sample and analysis was not conducted are not included in calculations.

Note: quarters with effluent values below MDL are shown as 0

# of annual exceedences shown are hypothetical - evaluated by comparing annual average effluent values by outfall to 2024 draft permit benchmarks.

| **permit** | **benchmark (SU)** | **# exceedences** |
|---|---|---|
| 2019 permit | 6 | 4 out of 30 |
| 2024 draft permit | 6 | 4 out of 30 |

| Phosphorus, total as P (mg/L) | | @ outfall 001B | @ outfall 001C | @ outfall 002A | @ outfall 003A | @ outfall 003B |
|---|---|---|---|---|---|---|
| qtr/annual | year | | | | | |
| 1 | 2019 | 0.04 | 0.06 | 0.05 | 0.09 | 0.11 |
| 2 | 2019 | 0.07 | 0.09 | 7.2 | 0.17 | 0.22 |
| 3 | 2019 | 0.06 | 0.08 | 0.1 | 0.16 | 0.24 |
| 4 | 2019 | NODI: E | NODI: E | NODI: E | NODI: E | NODI: E |
| **annual ave** | **2019** | **0.05667** | **0.07667** | **2.45** | **0.14** | **0.19** |
| 1 | 2020 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| 2 | 2020 | 0.05 | 0.06 | 0.02 | 0.06 | 0.05 |
| 3 | 2020 | NODI: E | NODI: E | NODI: E | NODI: E | NODI: E |
| 4 | 2020 | 0.04 | 0.06 | 0 | 0.05 | 0.05 |
| **annual ave** | **2020** | **0.04667** | **0.05667** | **0.02333** | **0.05333** | **0.05** |
| 1 | 2021 | 0.12 | 0.16 | 0.045 | 0.056 | 0.054 |
| 2 | 2021 | 0.093 | 0.16 | 0.051 | 0.091 | 0.09 |
| 3 | 2021 | 0.029 | 0.017 | 0.051 | 0.028 | 0.035 |
| 4 | 2021 | 0.11 | 0.17 | 0.062 | 0.081 | 0.11 |
| **annual ave** | **2021** | **0.088** | **0.12675** | **0.05225** | **0.064** | **0.07225** |
| 1 | 2022 | 0.039 | 0.037 | 0.036 | 0.044 | 0.039 |
| 2 | 2022 | 0.037 | 0.038 | 0.01 | 0.012 | 0.013 |
| 3 | 2022 | 0.066 | 0.17 | 0.057 | 0.043 | 0.035 |
| 4 | 2022 | 0 | 0 | 0 | 0 | 0 |
| **annual ave** | **2022** | **0.0355** | **0.06125** | **0.02575** | **0.02475** | **0.02175** |
| 1 | 2023 | 0 | 0.011 | 0.064 | 0 | 0.047 |
| 2 | 2023 | 0.04 | 0.11 | 0.04 | 0.03 | 0.03 |
| 3 | 2023 | 0.17 | 0.028 | 0.069 | 0.054 | 0.049 |
| 4 | 2023 | 0.051 | 0.019 | 0.012 | 0.018 | 0.024 |
| **annual ave** | **2023** | **0.06525** | **0.042** | **0.04625** | **0.0255** | **0.0375** |
| 1 | 2024 | 0 | 0.012 | 0.037 | 0.019 | 0.034 |
| 2 | 2024 | 0.047 | 0.03 | 0.013 | 0.023 | 0.061 |
| 3 | 2024 | 0.12 | 0.12 | 0.12 | 0.061 | 0.048 |
| 4 | 2024 | 0.042 | 0.055 | 0.17 | 0.043 | 0.05 |
| **annual ave** | **2024** | **0.05225** | **0.05425** | **0.085** | **0.0365** | **0.04825** |

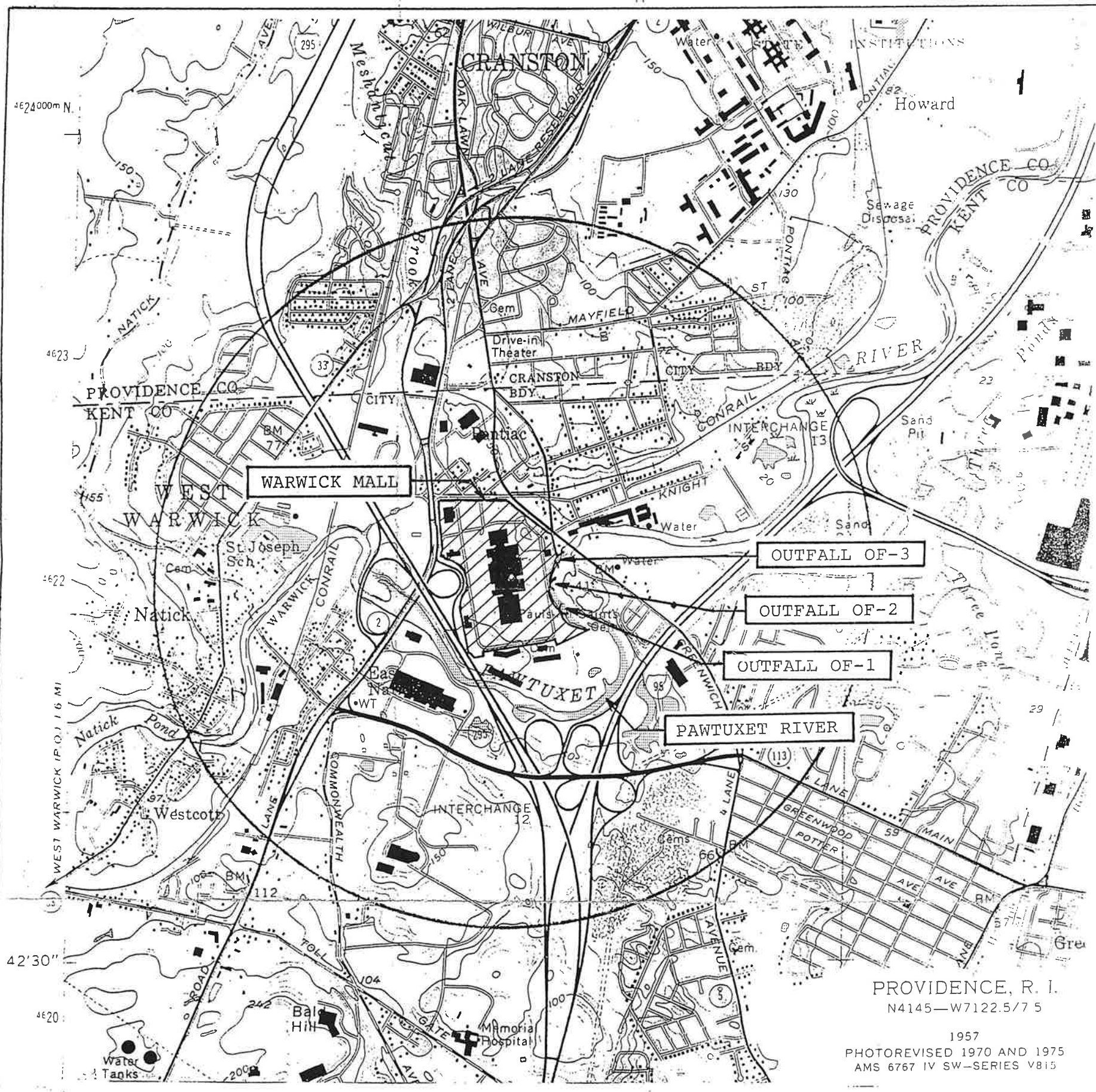
* quarters where the facility failed to sample and analysis was not conducted are not included in calculations.

Note: quarters with effluent values below MDL are shown as 0

# of annual exceedences shown are hypothetical - evaluated by comparing annual average effluent values by outfall to 2024 draft permit benchmarks.

| **permit** | **benchmark (mg/L)** | **# exceedences** |
|---|---|---|
| hypothetical permit | 0.1 | 4 out of 25 |

**Attachment D: Site Plan**




PROVIDENCE, R. I.
N4145—W7122.5/7 5

1957
PHOTOREVISED 1970 AND 1975
AMS 6767 IV SW—SERIES V815

SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

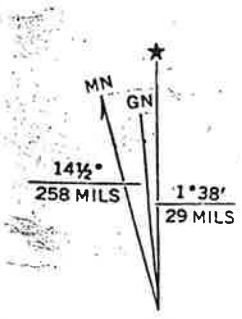
1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

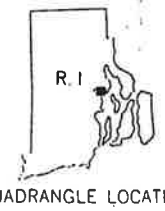
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS APPROXIMATELY 4.4 FEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ANGELO F. FERRARI
No. 8765
REGISTERED
PROFESSIONAL ENGINEER




UTM GRID AND 1975 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET




QUADRANGLE LOCATION

ONE-MILE RADIUS MAP
WARWICK MALL
BALD HILL RD. WARWICK, RI