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

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

This permit shall become effective on October 1, 2012.

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, 2006.

This permit consists of 13 pages in Part I including effluent limitations, monitoring requirements, etc. and ten (10) pages in Part II including General Conditions.

Signed this 24th day of August 2012.

Angelo S. Liberti

Angelo S. Liberti, P.E., Chief 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)*	Average Weekly	Maximum Daily (Maximum)*	Measurement Frequency	Sample Type
Flow		--- MGD				1/Quarter	Calculated[1]
TSS					--- mg/l	1/Quarter	Grab[2]
BOD_5					--- mg/l	1/Quarter	Grab[2]
pH			(--- SU)		(--- SU)	1/Quarter	Grab[2]
Oil and Grease					--- mg/l	1/Quarter	Grab[2]
Phosphorus, Total					--- mg/l	1/Quarter	Grab[2]
Lead, Total					--- mg/l	1/Quarter	Grab[2]
Zinc, Total					--- mg/l	1/Quarter	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.

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

Samples must be obtained from a discharge which is the result of a representative storm event that occurs at least seventy-two (72) 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.

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

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

      (3) Five (5) times the maximum concentration 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 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 ug/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 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 storm water runoff and the following allowable non-storm water discharges: discharges from fire fighting activities; fire hydrant flushings; external building washdowns that do not use detergents; lawn watering; uncontaminated ground water; air conditioning condensate; potable waterline flushings; irrigation drainage; and 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. If any of these discharges may reasonably be expected to be present, they must be specifically identified and addressed in the facility's Storm Water 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. STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

1. A Storm Water Pollution Prevention Plan (SWPPP) shall be maintained by the permittee. 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 storm water discharges from the site. 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 storm water discharges 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 RIPDES Rule 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 it 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 storm water discharges. Changes must be noted and then submitted to the Department of Environmental Management. 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 storm water 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 indicating: a delineation of the drainage area of each storm water outfall, each existing structural control measure to reduce pollutants in storm water runoff, locations where significant materials are exposed to storm water, locations where significant leaks or spills have occurred, a delineation of all impervious surfaces, all surface water bodies, all separate storm sewers, and the locations of the following activities where such areas are exposed to storm water: fueling stations, vehicle and equipment maintenance and/or cleaning areas, material handling areas, material storage areas, process areas, and waste disposal areas;

      (2) 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) A narrative description of significant materials that have been treated, stored, or disposed of in a manner to allow exposure to storm water in the past three (3) years; method of on-site storage or disposal; materials management practices employed to minimize contact of these materials with storm water runoff in the past three (3) years; materials loading and access areas; the location and description of existing structural and non-structural control measures to reduce pollutants in storm water runoff; and description of any treatment the storm water receives;

(5) A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at the facility in the past three (3) years;

(6) 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 RIPDES Rule 11.02(a)(14)(iii)-(v) or 40 CFR 122.21(g)(iii)-(v);

(7) For each area of the facility that generates storm water 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 storm water;

(8) A summary of existing sampling data describing pollutants in storm water discharges from the facility; and

b. Storm Water Management Controls. The permittee must develop a description of storm water 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 storm water 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 Plan.

(2) *Risk Identification and Assessment/Material Inventory.* The SWPPP must assess the potential of various sources that contribute pollutants to storm water. 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 storm water, 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 storm water 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) *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.

(5) *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 storm water 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.

(6) *Storm Water Management.* The SWPPP must contain a narrative consideration of the appropriateness of traditional storm water management practices. Based on an assessment of the potential of various sources to contribute pollutants to storm water 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.

(7) *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.

(8) *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.

(9) *Employee Training.* Employee training programs must inform personnel responsible for implementing activities identified in the SWPPP, or otherwise responsible for storm water 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.

(10) *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.

(11) *Record keeping and Internal Reporting Procedures.* Incidents such as spills, or other discharges, along with other information describing the quality and quantity of storm water 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 Storm Water Management in New Development and Redevelopment. The permittee shall develop and implement a conceptual redevelopment plan that contains standards and criteria to address storm water runoff from new development and redevelopment projects, except parking lot resurfacing that does not include subsurface disturbances. The plan must address direct discharges of storm water to waters of the State in addition to the discharges to the storm drainage system. The permittee must ensure that controls are in place or are proposed in new or redevelopment projects to prevent or minimize water quality impacts through the management of peak flows, the reduction of runoff volume, or treatment for sediment or other pollutants of concern. 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 structural methods such as detention basins, wet basins, infiltration basins, trenches, dry wells, galleys, vegetated swales and/or vegetated filter strips and non-structural BMPs.

(2) Requirements that all controls to address post-construction runoff are consistent with the December 2010 State of Rhode Island Storm Water Design and Installation Manual (as amended).

(3) Procedures to ensure adequate and long-term operation and maintenance of BMPs.

(4) 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 storm water 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. Storm water management controls may reflect requirements for Spill Prevention Control and Counter-measure (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. At a minimum, the following activities must be conducted at the specified frequency:

   a. Perform monthly inspections of any erodable 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 storm water controls to remove sediment, floatables, 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.

3. 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.

D. BENCHMARK MONITORING

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
pH	6.0 – 9.0 S.U.
Oil and Grease	15
Total Lead	0.0816
Total Zinc	0.117

2. Any quarterly exceedances of the benchmark concentrations shall trigger a reevaluation of the implementation of the existing SWPPP and facility operations to determine if there are possible problems with non-structural BMPs or maintenance that can be corrected. The SWPPP shall be promptly revised in response to these reevaluations and in no case later than thirty (30) calendar days following the receipt of monitoring results that exceed the benchmark concentrations. A report of the permittee's comparison of monitoring results with the benchmark concentrations shall be submitted with each DMR. If the permittee exceeds any of the benchmark concentrations during the monitoring period the report shall include a detailed description of the possible causes of the exceedances or of any significant increases in parameter concentrations, the dates and scopes of inspections, a summary of monitoring results and visual inspections, and any modifications made to the SWPPP to reduce the pollutant levels.

3. 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, then the permittee shall perform a detailed review of all storm water controls, BMPs, and maintenance schedules contained in the SWPPP and shall make all reasonable amendments to reduce the pollutant levels in the discharge. These amendments shall be submitted to the Department of Environmental Management - Office of Water Resources with the annual Comprehensive Site Evaluation Report required under Part I.F. 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 storm water 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. 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 for a given calendar year must be submitted to the DEM at the following address by January 15th of the following year:

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

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

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

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

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

OTHER TOXIC POLLUTANTS

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

* Polynuclear Aromatic Hydrocarbons
** No Rhode Island Department of Environmental Management (RIDEM) MDL
*** Not a priority pollutant as designated in the 1997 Water Quality Regulations (Table 5)

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 Federal Regulations (40 CFR Part 136).

2. Reporting

Monitoring results obtained during the previous quarter shall be summarized and reported on Discharge Monitoring Report (DMR) Forms, postmarked no later than the 15th day of the month following the completed quarter as follows:

Quarter Testing to be Performed	Report Due No Later Than	Results Submitted on DMR for
January 1 - March 31	April 15	January 1 - March 31
April 1 - June 30	July 15	April 1 - June 30
July 1 - September 30	October 15	July 1 - September 30
October 1 - December 31	January 15	October 1 - December 31

A signed copy of these, and all other reports required herein, shall be submitted to:

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

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**

CLASSIFICATION: **B1**

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

The above named applicant has applied to the Rhode Island Department of Environmental Management (DEM) for reissuance of a RIPDES Permit to discharge into the designated receiving water. The facility is engaged in the operation of a retail mall. The discharge consists of storm water from the mall, various separate detached retail stores, a car care center, a movie theater, detached restaurants, and their associated parking lots.

II. Permit and Administrative Compliance Order Limitations and Conditions

The final effluent limitations and monitoring requirements may be found in the permit.

III. Permit Basis and Explanation of Effluent Limitation Derivation

The Warwick Mall (Mall) 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 Natic 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 Mall are located in separate buildings from the main mall facility and are leased from the Mall by their respective operators. Storm water runoff from all of these facilities enters catch basins and eventually discharges into the Pawtuxet River.

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 storm water under the NPDES program. In 1990, EPA issued final regulations that established application requirements for storm water permits, commonly referred to as Phase I Storm Water Rules. These rules required owners or operators of specific categories of industrial facilities, which discharge storm water 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 storm water 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 RI DEM amended the RIPDES Regulations to include Storm Water Rules.

In 1994 the DEM designated the facility as a significant contributor of pollutants to the Pawtuxet River. This determination was made since the Pawtuxet River, on which the facility is located, is a heavily urbanized river that is impacted by pollution from contaminated storm water 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, is a significant contributor of storm water pollutants to the Pawtuxet River. Therefore, in accordance with Rule 31(a)(1)(vii) of the RIPDES Regulations, 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 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 Storm Water Permits* guidance document. This document states that it is appropriate for storm water discharge permits to "use best management practices (BMPs) in first-round storm water 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 storm water 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".

RIPDES Rule 15.01 states 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 storm water 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 storm water and certain allowable non-storm water discharges. Non-storm water discharges that are authorized under this permit are limited to discharges from fire fighting activities; fire hydrant flushings; external building washdowns that do not use detergents; lawn watering; uncontaminated ground water; springs; air conditioning condensate; potable waterline flushings; irrigation drainage; and 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. If any of these discharges may reasonably be expected to be present and to be mixed with storm water discharges, they must be specifically identified and addressed in the facility's Storm Water Pollution Prevention Plan.

The following outfalls were identified in a August 1996 SWPPP and are authorized by this permit: Outfall 001A (24" reinforced concrete pipe that collects storm water runoff from the southern portion of the outfall 001 drainage area), 001B (42" reinforced concrete pipe that collects storm water runoff from the outfall 001 drainage area), 001C (24" reinforced concrete pipe that collects storm water runoff from the northern portion of the outfall 001 drainage area), 002A (36" reinforced concrete pipe that collects storm water runoff from the outfall 002 drainage area), 003A (24" reinforced concrete pipe that collects storm water runoff from the southern portion of the outfall 003 drainage area), and 003B (36" reinforced concrete pipe that collects storm water runoff from the northern portion of the outfall 003 drainage area). A review of historic monitoring data from October 2006 – September 2011 has revealed that outfalls 001A, 001B and 001C have similar effluent characteristics. In addition the sampling results for the monitoring period at outfalls 001A and 001B were below the benchmark values (except pH). Since the drainage area for outfall 001A is much smaller than 001B the monitoring requirements for outfall 001A have been eliminated from Part I.A.1. Therefore, this permit requires monitoring at outfalls 001B, 001C, 002A, 003A, and 003B.

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 the allowable pollutant loads that can be discharged from point sources into the Pawtuxet River (based on the effective RIPDES permit limitations) to the pollutant loads from storm water discharges (based upon the data contained in the DEM's Technical Reports and the National Urban Runoff Program (NURP) data). Based upon a review of this comparison (see Attachment 1), it was determined that storm water is a significant source of Total Suspended Solids (TSS), Total Lead, and Total Zinc to the Pawtuxet River, contributing 36%, 84% and 54% of the total load to the river, respectively. In addition, storm water is also a significant source of hydrocarbons due to the potential for runoff from commercial areas to contain automobile fluids. Therefore, it was determined that the permittee is a significant source of Oil & Grease. Contamination of storm water can also have the potential to impact the pH of the runoff. As a result, pH was viewed as a pollutant of concern. Lastly, since the main stem of the Pawtuxet River is listed as being impaired for low dissolved oxygen and nutrients, it was determined that Biological Oxygen Demand (BOD) and Total Phosphorus were pollutants of concern. As a result of this analysis, it was determined that the pollutants of concern for this facility include BOD, TSS, Total Lead, Total Zinc, Oil & Grease, Total Phosphorus, and pH.

Water Quality-Based Permit Requirements

Water quality-based effluent limitations are established based on the class of the water body and by using the acute and chronic aquatic life criteria and human health criteria specified in Appendix B of the August 6, 1997 Rhode Island Water Quality Regulations. In accordance with 40 CFR 122.4(d)(1)(iii), water quality based effluent limitations are only required for those pollutants in the discharge that have the reasonable potential to cause or contribute to the exceedence of in stream criteria. However, due to the difficulty in determining which pollutants may have reasonable potential to cause a water quality violation, based on the intermittent nature of storm water discharges, the DEM does not typically establish numeric water quality based effluent limits for storm water discharges. Instead, the DEM uses benchmark monitoring to monitor the quality of the storm water 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. Any exceedances of the benchmark values shall trigger a review of the facility's storm water controls by the permittee and modification as necessary.

Since TSS, Total Lead, Total Zinc, Oil & Grease, and pH have been identified as pollutants of concern for this facility, based on their potential to cause adverse water quality impacts, benchmark concentrations for these pollutants have been added to the permit. In addition, since the Pawtuxet River, in the vicinity of the discharge, is listed as being impaired for low dissolved oxygen and nutrients, monitoring requirements for these pollutants have also been incorporated into the permit. It should be noted that benchmark concentrations for BOD and Total Phosphorus have not been included in this permit, since the pollutant loads for these pollutant from this facility were much lower than their loads from other facilities (see attachment 1). However, the monitoring data for these pollutants will allow the DEM to be able to characterize the pollutant loading from this facility be used to verify that the relative loading of these pollutants remains low. Historic effluent data, presented in Attachment A, has shown that this facility has consistently met its applicable benchmark concentrations. Therefore, the permit requires that the facility continue to implement its SWPP and BMPs.

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 Storm Water Pollution Prevention Plan (SWPPP). The requirements from the SWPPP section are consistent with those from Rhode Island's General Permit for Storm Water Discharges Associated with Industrial Activity.

Additional Permit Requirements

The permit requires that inspections of the storm water controls be conducted in a manner consistent with the SWPPP and identifies some of the key inspections that must be conducted along with their minimum frequencies. The permit also requires that the SWPPP address post-construction storm water management in new development and redevelopment projects. Lastly, the permit also includes a requirement that the permittee complete an annual comprehensive site evaluation report and submit it 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. The remaining general and specific conditions of the permit are based on the RIPDES regulations as well as 40 CFR Parts 122 through 125 and consist primarily of requirements common to all storm water permits.

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

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

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

V. DEM Contact

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

Joseph Camara
Sanitary Engineer
RIPDES Program
Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-4700, extension 7715

6/25/12
Date

Joseph B. Haberek, P.E.
Principal Sanitary Engineer
RIPDES Program
Office of Water Resources
Department of Environmental Management

ATTACHMENT A

AVERAGE EFFLUENT CHARACTERISTICS: Outfall 001A (10/06 - 9/11)

PARAMETER	AVERAGE	MAXIMUM
Flow	0.30 MGD	1.3 MGD
TSS	8.69 mg/l	55 mg/l
Oil and Grease	3.21 mg/l	7.3 mg/l
Total Lead	0.0384 mg/l	0.04 mg/l
Total Zinc	0.0401 mg/l	0.104 mg/l
pH	6.24 S.U.	
BOD	6.875 mg/l	20 mg/l
Phosphorus	0.0869mg/l	0.26 mg/l

AVERAGE EFFLUENT CHARACTERISTICS: Outfall 001B (10/06 - 9/11)

PARAMETER	AVERAGE	MAXIMUM
Flow	0.30 MGD	1.2 MGD
TSS	15.13 mg/l	66 mg/l
Oil and Grease	4.29 mg/l	14 mg/l
Total Lead	0.0388 mg/l	0.044 mg/l
Total Zinc	0.0488 mg/l	0.11 mg/l
pH	6.3 S.U.	
BOD	6.37mg/l	24 mg/l
Phosphorus	0.0906 mg/l	0.27 mg/l

AVERAGE EFFLUENT CHARACTERISTICS: Outfall 001C (10/06 - 9/11)

PARAMETER	AVERAGE	MAXIMUM
Flow	0.20 MGD	1.2 MGD
TSS	11.28 mg/l	40 mg/l
Oil and Grease	3.79 mg/l	7.9 mg/l
Total Lead	0.0383 mg/l	0.04 mg/l
Total Zinc	0.0729 mg/l	0.314 mg/l
pH	6.3 S.U	
BOD	6.61 mg/l	26 mg/l
Phosphorus	0.0864 mg/l	0.18 mg/l

AVERAGE EFFLUENT CHARACTERISTICS: Outfall 002A (10/06 - 9/11)

PARAMETER	AVERAGE	MAXIMUM
Flow	0.49 MGD	2.4 MGD
TSS	11.7 mg/l	74 mg/l
Oil and Grease	3.97 mg/l	11 mg/l
Total Lead	0.0419 mg/l	0.089 mg/l
Total Zinc	0.1822 mg/l	1.3 mg/l
pH	6.2 S.U.	
BOD	8.69 mg/l	30 mg/l
Phosphorus	0.1159 mg/l	0.39 mg/l

ATTACHMENT A

AVERAGE EFFLUENT CHARACTERISTICS: Outfall 003A (10/06 - 9/11)

PARAMETER	AVERAGE	MAXIMUM
Flow	0.42 MGD	2.1 MGD
TSS	26.21 mg/l	110 mg/l
Oil and Grease	6.55 mg/l	19 mg/l
Total Lead	0.0597 mg/l	0.4 mg/l
Total Zinc	0.0919 mg/l	0.52 mg/l
pH	6.4 S.U.	
BOD	22.25 mg/l	240 mg/l
Phosphorus	0.13 mg/l	0.29 mg/l

AVERAGE EFFLUENT CHARACTERISTICS: Outfall 003B (10/06 - 9/11)

PARAMETER	AVERAGE	MAXIMUM
Flow	0.31 MGD	1.3 MGD
TSS	14.62 mg/l	56 mg/l
Oil and Grease	10.15 mg/l	100 mg/l
Total Lead	0.0384 mg/l	0.04 mg/l
Total Zinc	0.0919 mg/l	0.59 mg/l
pH	6.3 S.U.	
BOD	10.53 mg/l	271 mg/l
Phosphorus	0.0929 mg/l	0.14 mg/l