RHODE ISLAND DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
Office of Water Resources

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RIPDES SMALL MS4 ANNUAL REPORT

GENERAL INFORMATION PAGE

RIPDES PERMIT #RIR0400 _____

REPORTING PERIOD: ☒ **YEAR 16**
Jan 2019-Dec 2019

OPERATOR OF MS4

Name: City of Providence			
Mailing Address: 25 Dorrance Street			
City: Providence	State: RI	Zip: 02921	Phone: (401) 680-5000
Contact Person: William C. Bombard, P.E.	Title: City Engineer		
	Email: wbombard@providenceri.gov		
Legal status (circle one): PRI - Private (PUB - Public) BPP - Public/Private STA - State FED – Federal Other (please specify):			

OWNER OF MS4 (if different from OPERATOR)

Name:			
Mailing Address:			
City:	State:	Zip:	Phone: ( )
Contact Person:	Title:		
	Email:		

CERTIFICATION

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

Print Name _____

Print Title _____

Signature _____ Date _____

MINIMUM CONTROL MEASURE #1:
PUBLIC EDUCATION AND OUTREACH (Part IV.B.1 General Permit)

SECTION I. OVERALL EVALUATION:

GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:

Include information relevant to the implementation of each measurable goal, such as activities, topics addressed, audiences and pollutants targeted. Discuss activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for choosing the education activity to address the pollutant of concern.

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: William C. Bombard, P.E., City Engineer

Phone: 401.680.7535 **Email:** wbombard@providenceri.gov

IV.B.1.b.1	Use the space below to provide a General Summary of activities implemented to educate your community on how to reduce stormwater pollution. For TMDL affected areas, with stormwater associated pollutants of concern, indicate rationale for choosing the education activity. List materials used for public education and topics addressed. Summarize implementation status and discuss if the activity is appropriate and effective.

The City has not implemented formal activities to educate the community on how to reduce stormwater pollution regardless of TMDL status. The Department of Public Works, Parks Department and the Office of Sustainability share responsibility for implementing the public education and outreach measure. There are many independent events/activities, which incorporate stormwater education, including:

- The City holds monthly, ward-specific community meetings to educate residents on the City's ongoing effort to reduce stormwater pollution and to inform residents on how they can help.
- The City is working with community partners, such as the Green Infrastructure Coalition, to educate on reducing stormwater pollution, including implementing demonstration projects in the neighborhoods and public events.
- The Sustainability Department maintains an active e-newsletter on stormwater management and pollution prevention, which is sent to approximately 300 community members.
- Roger Williams Park added informational signs regarding stormwater green infrastructure and the impact of feeding the waterfowl near around the park, some of which are even permeable.
- The Planning Department, in conjunction with the Department of Public Works, has been working with Crossman Engineering on an SEP to restore the Seekonk River bank along River Road and Irving Avenue with a strong emphasis on green infrastructure. Public meetings have been held on this project.
- The Department of Sustainability, in conjunction with the Woonasquatucket River Watershed Council (WRWC), held the SustainPVD Fair in the Spring, where residents could come and learn about stormwater management in a fun and relaxed environment. Residents could also learn about the rain barrel program the City is implanting. About 40 rain barrels were distributed again this year.

IV.B.1.b.2	Use the space below to provide a general summary of how the public education program was used to educate the community on how to become involved in the municipal or statewide stormwater program. Describe partnerships with governmental and non-governmental agencies used to involve your community.

There has been no formal public education program in the reporting year.

The City's Forestry Division of the Parks Department is a partner in the Providence Neighborhood Planting Program (PNPP), which plants approximately 500 trees every year with the help of neighborhood residents. This program is becoming more popular as the years go on.

The City also works with neighborhood groups and environmental group to supply tools and collect trash during neighborhood cleanup events.

A key partner in the Mashapaug Pond area is the Urban Ponds Procession Arts (UPP Arts). The City is a partner in their annual event, the Urban Ponds Procession.

The City works closely with the Woonasquatucket River Watershed Council (WRWC) in their efforts to implement green infrastructure, educate residents, and clean up the river. For example, with the support of the City, the WRWC installed several tree filters along Pleasant Valley Parkway and Manton Avenue to increase the water quality before discharging into the Woonasquatucket River. In addition, the WRWC completed a green infrastructure retrofit of the Citizens Bank parking lot between Westminster Street and San Souci Drive. All of the WRWC projects incorporate public education and outreach, whether it be through public meetings or installing signage explaining the benefits of the retrofit.

Check all topics that were included in the Public Education and Outreach program during this reporting period. For each of the topics selected, provide the target pollutant (e.g. construction sites, total suspended solids):

Topic	**Target Pollutant(s)**
☐ Construction Sites	
☐ Pesticide and Fertilizer Application	
☐ General Stormwater Management Information	
☒ Pet Waste Management	Pet waste signs and waste collection bags are provided at various city parks. Target Pollutant: Fecal Coliform
☒ Household Hazardous Waste Disposal	The City participates in hosting Eco-Depot events at the Department of Public Works. This event is advertised on the City's social media. Target Pollutants: Floatables, hazardous materials
☒ Recycling	The DPW Environmental Division has expanded its recycling enforcement compliance area tremendously in the reporting year. They have increased from 21 active recycling routes to 35 active recycling routes, which is the target goal. All City residents were mailed a multilingual informational brochure on recycling compliance. Target Pollutant: Floatables
☐ Illicit Discharge Detection and Elimination	
☒ Riparian Corridor Protection/Restoration	The City has been working on a design to revitalize the riverbank along the Seekonk River, which has been exposed to erosion throughout the years. The Planning Department has held many public meetings to discuss the goals of the project. Target Pollutant: Sediment.
☒ Infrastructure Maintenance	The DPW works to clean catch basins and sweep streets throughout the City. Target Pollutants: Sediment, floatables
☒ Trash Management	The DPW Environmental Division has expanded its recycling enforcement compliance area tremendously. This is an ongoing effort to reduce contaminated recycling loads, which are then diverted to the landfill. If non-compliant, the load is rejected at the curb, with multilingual informational literature left at the dwelling. The City also maintains sidewalk trash containers in high pedestrian areas. Target Pollutant: Floatables
☐ Smart Growth	
☐ Vehicle Washing	
☐ Storm Drain Marking	
☐ Water Conservation	
☒ Green Infrastructure/Better Site Design/LID	The Department of Public Works has worked with community groups, including the Woonasquatucket River Watershed Council and Groundwork Rhode Island, to install green infrastructure within the public right-of-way. Target Pollutant: Sediment, floatables
☐ Wetland Protection	
☐ Other:	
☐ None	

Specific audiences targeted during this reporting period:

- ☒ Public Employees
- ☒ Residential
- ☐ Businesses
- ☐ Restaurants
- ☒ Other: Dog owner
- ☐ Contractors
- ☐ Developers
- ☒ General Public
- ☐ Industries
- ☐ Agricultural

Additional Measurable Goals and Activities

Please list all stormwater training attended by your staff during the 2019 calendar year and list the name(s) and municipal position of all staff who attended the training.

Trainings:
2-28-19 (APWA) "Stretching Your Green Infrastructure Dollars"
Attending name of staff and title: William Bombard, City Engr

5-14-19 (EPA) "Reaching Public Consensus: Stormwater Funding in Ashland, MA"
Attending name of staff and title: William Bombard, City Engr

5-16-19 (MMSA) "St. Anthony Falls Lab Stormwater Seminar"
Attending name of staff and title: William Bombard, City Engr

8-28-19 (EPA) "Accelerating Statewide Green Infrastructure Investment in RI"
Attending name of staff and title: William Bombard, City Engr

9-24-19 (EPA) "Soak up the Rain—Stormwater Mapping"
Attending name of staff and title: William Bombard, City Engr

10-224-19 (APWA) "Hydraulic Modeling"
Attending name of staff and title: William Bombard, City Engr

12-5-19 (EPA) "Working Together: Collaborative Stormwater Management in Central Mass"
Attending name of staff and title: William Bombard, City Engr

12-12-19 (DEM) "Implementing your Stormwater Program – an MS4 Gathering"
Attending name of staff and title, William Bombard, City Engr; Brian Byrnes, Parks Deputy Superintendent; Justin Mateus, Civil Engineer

12-17-19 (EPA) "Rain Gardens for Residents on Aquidnick Island"
Attending name of staff and title: William Bombard, City Engr

MINIMUM CONTROL MEASURE #2:
PUBLIC INVOLVEMENT/PARTICIPATION (Part IV.B.2 General Permit)

SECTION I. OVERALL EVALUATION:

GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:

Include information relevant to the implementation of each measurable goal, such as types of activities and audiences/groups engaged. Discuss activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: William C. Bombard, P.E., City Engineer

Phone: 401.680.7535 **Email:** wbombard@providenceri.gov

IV.B.2.b.2.ii	Use the space below to describe audiences targeted for the public involvement minimum measure, include a description of the groups engaged, and activities implemented and if a particular pollutant(s) was targeted. If addressing TMDL requirements indicate how the audience(s) and/or activity address the pollutant(s) of concern. Name of person(s) and/or parties responsible for implementation of activities identified. Assess the effectiveness of BMP and measurable goal.

The City has not implemented a formal program for the public involvement measure. The Department of Public Works, Parks Department and the Office of Sustainability share responsibility for implementing the public involvement and participation measure. There are many independent events/activities, which incorporate stormwater education, including:

- The City holds monthly, ward-specific community meetings to educate residents on the City's ongoing effort to reduce stormwater pollution and to inform residents on how they can help.
- The City of Providence participates in the RI Green Infrastructure Coalition, which engages more than 40 not-for-profit organizations with city officials to promote and construct pathways for rainwater, melting snow and other runoff, resulting in a cityscape to be attractive to business, tourism, and residents while improving the water quality in nearby waterbodies. More information can be found at the following website: http://www.greeninfrastructureri.org/
- The City works with neighborhoods and environmental groups to provide trash bags and remove trash during neighborhood cleanup events, such as on Earth Day weekend.
- The Providence Parks Department, Forestry Division has planted 758 trees in the reporting year. A majority of street trees are planted by neighborhood groups and volunteers. Planting of street trees has resulted in an estimated 7,400 sf of impervious sidewalk removal. https://www.providenceri.com/parks-and-rec/forestry/street-tree-planting
- The Department of Sustainability, in conjunction with the Woonasquatucket River Watershed Council (WRWC), held the SustainPVD Fair in the Spring, where residents could come and learn about stormwater management in a fun and relaxed environment. Residents could also learn about the rain barrel program the City is implanting. About 40 rain barrels were distributed again this year.
-The Parks Department opened their Stormwater Innovation Center in Roger Williams Park. The opening of the facility was accompanied by a tour around the park to display the various BMP's installed and how their improving the water quality. Non-profit community groups, such as the Green Infrastructure Coalition and the Woonasquatucket River Watershed Council, and interested residents can utilize the facility.

Opportunities provided for public participation in implementation, development, evaluation, and improvement of the Stormwater Management Program Plan (SWMPP) during this reporting period. Check all that apply:

- ☒ Cleanup Events
- ☐ Comments on SWMPP Received
- ☐ Community Hotlines
- ☒ Community Meetings
- ☐ Other (describe)
- ☐ Storm Drain Markings
- ☐ Stakeholder Meetings
- ☐ Volunteer Monitoring
- ☒ Plantings

Additional Measurable Goals and Activities

SECTION II. Public Notice Information (Parts IV.G.2.h and IV.G.2.i) *Note: attach copy of public notice

Was the availability of this Annual Report and the Stormwater Management Program Plan (SWMPP) announced via public notice? ☒ YES ☐ NO	If YES, Date of Public Notice: March 5, 2020
How was public notified: ☐ List-Serve (Enter # of names in List: _____) ☐ TV/Radio Notices ☒ Website ☐ Newspaper Advertising ☐ Town Hall posting ☐ Other: Enter Web Page URL: http://www.providenceri.gov/public-works/forms/	
Was public meeting held? ☐ YES ☒ NO Date:	Where:
Summary of public comments received: None	
Planned responses or changes to the program:	

MINIMUM CONTROL MEASURE #3:
ILLICIT DISCHARGE DETECTION AND ELIMINATION (Part IV.B.3 General Permit)

SECTION I. OVERALL EVALUATION:

GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS

Include information relevant to the implementation of each measurable goal, such as activities implemented (when reporting tracked and eliminated illicit discharges, please explain the rationale for targeting the illicit discharge) to comply with on-going requirements, and illicit discharge public education activities, audiences and pollutants targeted. Discuss activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: William C. Bombard, P.E., City Engineer

Phone: 401.680.7535 **Email:** wbombard@providenceri.gov

Has *this person* received training on Illicit Discharge Detection and Elimination (IDDE)? No

If yes, when and where? N/A

If no, who *is* trained on IDDE? Justin Mateus, DPW Civil Engineer, received NPDES Certified Stormwater Inspector training on February 16, 2018.

IV.B.3.b.1:	If the outfall map was not completed, use the space below to indicate reasons why, proposed schedule for completion of requirement and person(s)/ Department responsible for completion. (The Department recommends electronic submission of updated EXCEL Tables if this information has been amended.) **Number of Outfalls Mapped within regulated area:** 151 **Percent Complete:** 95% **If 100% Complete, Provide Date of Completion:** N/A

All known outfalls have been mapped using GIS software and include attributes such as pipe material and diameter. Currently, the City's sewer/stormwater consultant, CDM Smith, is working on identifying the connectivity of the mapped storm system to the outfalls. The few areas of uncertainty are utilizing field investigations and possibly dye tests to during the connectivity. Once the system is completely mapped with the correct connectivity, an MS4 watershed map for the City will be developed by CDM Smith to narrow down the regulated area.

IV.B.3.b.2	Indicate if your municipality chose to implement the tagging of outfalls activity under the IDDE minimum measure, activities and actions undertaken under the 2019 calendar year.

The City did not implement the tagging of outfalls in the 2019 reporting year. All outfalls were GPS located during the 2018 inspection and georeferenced on the GIS map.

IV.B.3.b.3	Use the space below to provide a summary of the implementation of recording of system additional elements (catch basins, manholes, and/or pipes). Indicate if the activity was implemented as a result of the tracing of illicit discharges, new MS4 construction projects, and inspection of catch basins required under the IDDE and Pollution Prevention and Good Housekeeping Minimum Measures, and/or as a result of TMDL related requirements and/or investigations. Assess effectiveness of the program minimizing water quality impacts.

A project to digitize the sewer network was awarded in 2017. In 2018, the City worked with their sewer/stormwater consultant, CDM Smith, to create the Providence Sewer GIS Map, which digitized all the City's as-built sewer plans. The Sewer GIS displays the entirely of the sewer system (sanitary, storm, and combined lines) and each line includes attributes such as ownership, flow direction, pipe shape and diameter, and a direct link to the scanned as-built plan.

In the reporting year, 2019, the Sewer GIS was greatly enhanced to include manholes and catch basins. This activity was implemented as a result of trying to identify the City's watershed and regulated area and has proven affective as it has decreased the regulated area. For example, catch basins discharging to a combined system don't contribute to the regulated area as catch basins discharging to the storm system do.

IV.B.3.b.4	Indicate if the IDDE ordinance was **not** developed, adopted, and submitted to RIDEM, explain reasons why, submit proposed schedule for completion and identify person(s) / Department and/or parties responsible for the completion of this requirement. **Date of Adoption:** 12/8/05 (Illicit Discharge Detection and Elimination – No. 569) If the Ordinance was amended in 2019, please indicate why changes were necessary.

No amendments were made to the IDDE ordinance in the reporting year. Once the City's watershed map is created, the City's plans to amend the IDDE ordinance to require new and redevelopment projects within the regulated area to incorporate BMP's to address the TMDL of concern.

IV.B.3.b.5.ii, iii, iv, & v	Use the space below to provide a summary of the implementation of procedures for receipt and consideration of complaints, tracing the source of an illicit discharge, removing the source of the illicit discharge and program evaluation and assessment as a result of removing sources of illicit discharges. Identify person(s) / Department and/or parties responsible for the implementation of this requirement.

The Department of Public Works, Engineering and Sewer Divisions are responsible for tracing an illicit discharge and the Engineering Division alone is responsible for removing the source of an illicit discharge.

The City works with its sewer/stormwater consultant, CDM Smith, to identify outfalls with illicit discharge and trace the line upstream until the contaminant is no longer evident. Once the illicit connection is determined to be within a short range of manholes, closed circuit television (CCTV) is used to identify any connections not on the City's sewer record plans. Once the illicit connection is found, the Chief Engineer sends the responsible party a letter from the City explaining the problem and what they have to do to repair it. The Sewer Division then checks on the responsible party regularly to ensure the illicit connection is disconnected in a timely manner. If no action is taken by the responsible party within a timely manner, the City reserves the right to plug the illicit connection to discontinue and further contamination.

In addition to working with the consultant, the City also utilizes a computer based service request system where residents can report complaints of illicit discharge and sewer odor via phone call, email, or by downloading the City's application PVD311. The system is capable of generating work orders and will automatically email citizens upon fulfillment of a service request. Such requests are received by the Department of Public Works, Mayor's Center for City Services, and the City Council Office.

Illicit discharges may also be reported directly to the Department of Public Works, Engineering Division for further investigation.

IV.B.3.b.5.vi	Use the space below to provide summary of implementation of catch basin and manhole inspections for illicit connections and non-stormwater discharges. If the required measurable goal of inspecting all catch basins and manholes for this purpose was not accomplished, please indicate reasons why, the proposed schedule of completion and identify person(s) / Department and/or parties responsible for the implementation of this requirement. Evaluate effectiveness of the implementation of this requirement. The operator must keep records of all inspections and corrective actions required and completed. **Number of Catch Basins and Manholes Inspected for illicit connections/IDDE:** 2,974 catch basin, citywide, including MS4 and combined systems. **Percent Complete:** ~25% **Date of Completion:** December 31, 2019

The City has an informal program of inspection for manholes and catch basins. As structures are cleaned, a visual inspection is performed by the operator. If anything out of the ordinary is observed, it is sent to the DPW Engineering Division for investigation and follow-up. This is an effective program for the catch basins surveyed, however, there are many thousands not surveyed in a given reporting year, therefore the goal of inspecting all catch basins and manholes was not accomplished. The City has approximately 16,000 catch basins and gutter inlets, some connected to the combined sewer system. The DPW Sewer Division is responsible for the implementation of this requirement. The Sewer Department uses a pole camera to aid in the inspections while the Department of Public Works tries to procure a sewer CCTV truck.

IV.B.3.b.5.vii	If dry weather surveys including field screening for non-stormwater flows and field tests of selected parameters and bacteria were not completed, indicate reasons why, proposed schedule for the completion of this measurable goal and person(s) / Department and/or parties for the completion of this requirement. Evaluate effectiveness of the implementation of this requirement. **The results of the dry weather survey investigations must be submitted to RIDEM electronically, if not already submitted or if revised since 2009, in the RIDEM-provided EXCEL Tables and should include visual observations for all outfalls during both the high and low water table timeframes, as well as sample results for those outfalls with flow. The EXCEL Tables must include a report of all outfalls and indicate the presence or absence of dry weather discharges.** **Number of Outfalls Surveyed Jan-Apr:** 0 **Number of Outfalls Surveyed Jul-Oct:** 0 **Percent Complete:** 100% **Date of Completion:** June 27, 2018

All 151 outfalls were inspected in the previous reporting year, 2018, from July to October due to an excessively wet spring that year. Of all the outfalls inspected, 22 were determine to have illicit, non-stormwater flow and were added to the prioritization list for further investigation. In 2018, the first four prioritized outfalls (Mash02, Mosh06, Woon02, and Woon44) were investigated upstream and narrowed down to a target area for CCTV.

No additional illicit outfall investigations were completed in the reporting year due to procurement difficulties. However, the City is currently working with its sewer/stormwater consultant, CDM Smith, to finish the first four prioritized outfalls with CCTV and to start the next three outfalls for investigation (Mosh13, Seek01, and SD6).

The Department of Public Works, Engineering Division is responsible for dry weather outfall inspections.

IV.B.3.b.7	Use the space below to provide a description of efforts and actions taken as a result of for coordinating with other physically interconnected MS4s, including State and federal owned or operated MS4s, when illicit discharges were detected or reported. Identify person(s) / Department and/or parties responsible for the implementation of this requirement. Evaluate effectiveness of the implementation of this requirement.

There has been no formal coordination with other interconnected municipal or state owned MS4s regarding illicit discharge. In 2018, the City investigated four outfalls with illicit discharge but the extent of the investigation stayed within the City's MS4 only. In the reporting year, the City met with RIDOT, the most common interconnectee in the city, to discuss our protocol for when interconnection communication is needed. Contact personnel and the process of notification was determined at the meeting.

IV.B.3.b.8	Use the space below to provide a description of efforts and actions taken for the referral to RIDEM of non-stormwater discharges not authorized in accordance to Part I.B.3 of this permit or another appropriate RIPDES permit, which the operator has deemed appropriate to continue discharging to the MS4, for consideration of an appropriate permit. Identify person(s) / Department and/or parties responsible for the implementation of this requirement. Evaluate effectiveness of the implementation of this requirement.

At this point, no illicit discharges that have been investigated warranted a referral to RIDEM. Once the CCTV portion of the investigation is completed and a source is located, RIDEM will be notified of the illicit discharge and our actions to eradicate the issue.

The Department of Public Works is responsible for implementing this measure.

IV.B.3.b.9	Use the space below to provide a description of efforts and actions taken to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste, as well as allowable non-stormwater discharges identified as significant contributors of pollutants. Include a description on how this activity was coordinated with the public education minimum measure and the pollution prevention/good housekeeping minimum measure programs. Identify person(s) / Department and/or parties responsible for the implementation of this requirement. Evaluate effectiveness of the implementation of this requirement.

No formal efforts have been taken to inform public employees, businesses and the general public of hazards associated with illegal discharges, etc.

Implementing this requirement has not been effective.

Additional Measurable Goals and Activities

SECTION II.A Other Reporting Requirements - Illicit Discharge Investigation and System Mapping (Part IV.G.2.m)

# of Illicit Discharges Identified in 2019: 1	# of Illicit Discharges Tracked in 2019: 5
# of Illicit Discharges Eliminated in 2019: 0	# of Complaints Received: 1
# of Complaints Investigated: 1	# of Violations Issued: 1
# of Violations Resolved: 0	# of Unresolved Violations Referred to RIDEM: 0
Total # of Illicit Discharges Identified to Date (since 2003): 6	Total # of Illicit Discharges remaining unresolved at the end of 2019: 5

Summary of Enforcement Actions: No enforcement actions have been taken for the four illicit discharges investigated from the IDDE investigation.

The City received one illicit discharge complaint from a resident in the reporting year. The incident involves the property owner at 39 Luna Street having their sewer lateral tied into a local catch basin. When the illicit discharge was discovered, a letter was sent to the property from the Chief Engineer stating the problem and their required actions to fix the issues and the Sewer Division cleaned the storm line from the illicit connection to the receiving waterbody. A permit was taken out by the property owner for a sewer repair but there's no evidence of the work being completed. Since the end of the reporting year, the Department of Public Works has been in contact with the property owner to again enforce the importance of the repair. Actions are currently going on to remove the illicit connection.

Extent to which the MS4 system has been mapped: The Providence MS4 system has been mapped to include pipes, manholes, and catch basins. The pipes include attributes such as ownership, type, shape, diameter, and a direct link to the as-built sewer plan.

Total # of Outfalls Identified and Mapped to date:151

SECTION II.B Interconnections (Parts IV.G.2.k and IV.G.2.l)

Interconnection:	Date Found:	Location:	Name of Connectee:	Originating Source:	Planned and Coordinated Efforts and Activities with Connectee:
N/A					
N/A					
N/A					

MINIMUM CONTROL MEASURE #4:
CONSTRUCTION SITE STORMWATER RUNOFF CONTROL
(Part IV.B.4 General Permit)

SECTION I. OVERALL EVALUATION:

GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:

Include information relevant to the implementation of each measurable goal, such as activities implemented to support the review, issuance and tracking of permits, inspections and receipt of complaints. Discuss activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: William C. Bombard, P.E., City Engineer

Phone: 401.680.7535 **Email:** wbombard@providenceri.gov

IV.B.4.b.1	Indicate if the Sediment and Erosion Control and Control of Other Wastes at Construction Sites ordinance was **not** developed, adopted, and submitted to RIDEM, explain reasons why, submit proposed schedule for completion and identify person(s) / Department and/or parties responsible for the completion of this requirement. **Date of Adoption:** 12/08/05 (Soil Erosion and Sediment Control – No. 568) If the Ordinance was amended in 2019, please indicate why changes were necessary. Please also indicate if amendments have been made based on the 2010 *RI Stormwater Design and Installation Standards Manual*, and provide references to the amended portions of the local codes/ordinances.

Amendments have not been made based on the 2010 RI Stormwater Design and Installation Standards Manual.

IV.B.4.b.6	Use the space below to describe actions taken as a result of receipt and consideration of information submitted by the public.

The City maintains a computer based service request system to receive citizen inquiries and complaints by phone and e-mail. The system is capable of generating work orders and will automatically email citizens upon fulfillment of a service request.

The Department of Public Works is responsible for responding to considerations and complaints. This measure is effective as response times range from 12-72 hours.

IV.B.4.b.8	Use the space below to describe activities and actions taken as a result of referring to the State non-compliant construction site operators. The operator may rely on the Department for assistance in enforcing the provisions of the RIPDES General Permit for Stormwater Discharges Associated with Construction Activity to the MS4 if the operator of the construction site fails to comply with the local and State requirements of the permit and the non-compliance results or has the potential to result in significant adverse environmental impacts.

All site plans undergo a pre-construction review. The Department of Public Works, Engineering Division and Department of Inspection and Standards, Building Official are responsible for this goal.

The City does not perform erosion and sediment control inspections. The Department of Inspections and Standards requires the submittal of a RIDOA form 128, which requires the engineer/architect to account and to submit reports certifying compliance with submitted plans and specifications outlined in RIGL 23-27.3 Section 128.0 of the RI Building Code.

Non-compliant construction site operators are referred to the relevant agencies (DPW, RIDEM, CRMC, Narragansett Bay Commission, etc.). Non-compliant sites may be referred by the engineer/architect (via Form 128 requirements), by the public, or as observed by the Department of Public Works or the Department of Inspections and Standards.

Additional Measurable Goals and Activities

Public comment and information regarding new development projects and construction runoff related impacts are available at the Department of Inspections and Standards upon request.

SECTION II. A - Plan and SWPPP/SESC Plan Reviews during Year 16 (2019), Part IV.B.4.b.2: Issuance of permits and/or implementation of policies and procedures for all construction projects resulting in land disturbance of greater than 1 acre. **Part IV.B.4.b.4:** Review 100% of plans and SWPPPs/SESC Plans for construction projects resulting in land disturbance of 1-5 acres must be conducted by adequately trained personnel and incorporate consideration of potential water quality impacts.

# of Construction Applications Received: 30 # of Construction Reviews Completed: 30 # of Permits/Authorizations Issued: 30
Summary of Reviews and Findings, include an evaluation of the effectiveness of the program. Post construction stormwater management inspections do not occur, however all construction projects require a pre-construction plan review. The City's Chief Engineer is responsible for reviewing the plans. The Department of Inspections and Standards requires the submittal of a RIDOA form 128 by the engineer of record, requiring reports certifying compliance with submitted plans and specifications. NOTE: The City of Providence has a lower threshold requirement than the RIPDES permit. The City requires a SWPPP for any development of redevelopment disturbing 20,000 square feet or greater. Identify person(s) /Department and/or parties responsible for the implementation of this requirement: The Building Official and City Engineer are responsible for this minimum measure. Identify the type and date of training this person(s)/parties has/have received to be considered "adequately trained": Bill Bombard, Chief Engineer, is self-taught in plan review from many years of professional experience.

SECTION II.B - Erosion and Sediment Control Inspections during Year 16 (2019), Parts IV.G.2.n and IV.B.4.b.7: Inspection of 100% of all construction projects within the regulated area that discharge or have the potential to discharge to the MS4. (The program must include two inspections of all construction sites, first inspection to be conducted during construction for compliance of the Erosion and Sediment controls at the site, the second to be conducted after the final stabilization of the site.) Inspections must be conducted by adequately trained personnel.

# of Active Construction Projects: 12	
# of Site Inspections: 5	# of Complaints Received: 1
# of Violations Issued: 0	# of Unresolved Violations Referred to RIDEM: 0
Summary of Enforcement Actions, include an evaluation of the effectiveness of the program. The City performs random inspections for erosion and sediment control on private sites. The one complaint received was for a developer tracking excessive sediment in the roadway. The developer was instructed to re-establish the erosion and sediment control measures, to sweep the effected streets, and to clean the effected catch basins. Prior to construction, the Department of Inspections and Standards requires the submittal of a RIDOA form 128 by the engineer/architect of record, requiring reports certifying compliance with submitted plans and specifications. The Chief Engineer reviews all plans, stormwater calculations and erosion control methods prior to sending it to the Building Official. Identify person(s) /Department and/or parties responsible for the implementation of this requirement: The Building Official is responsible for the implementation of this requirement. Identify the type and date of training this person(s)/parties has/have received to be considered "adequately trained": The Building Official has not received training on erosion and sediment control inspections.	

MINIMUM CONTROL MEASURE #5:
POST CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REVELOPMENT
(Part IV.B.5 General Permit)

SECTION I. OVERALL EVALUATION:

GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:

Include information relevant to the implementation of each measurable goal, such as activities implemented to support the review, issuance and tracking of permits, inspections and receipt of complaints, etc. Please indicate if any projects have incorporated the use of Low Impact Development techniques. Discuss activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: William C. Bombard, P.E., City Engineer

Phone: 401.680.7535 **Email:** wbombard@providenceri.gov

IV.B.5.b.5	Use the space below to describe activities and actions taken to coordinate with existing State programs requiring post-construction stormwater management.
The City has actively required developers of parcels more than 20,000 SF to conform to the Post-Construction Storm Water Management Ordinance. The City will continue to coordinate with all existing RIPDES programs.	
IV.B.5.b.6	Use the space below to describe actions taken for the referral to RIDEM of new discharges of stormwater associated with industrial activity as defined in RIPDES Rule 31(b)(15) (the operator must implement procedures to identify new activities that require permitting, notify RIDEM, and refer facilities with new stormwater discharges associated with industrial activity to ensure that facilities will obtain the proper permits).
In the reporting year, there were 11 permitted stormwater connections to the City of Providence sewer network (MS4 and combined system), none of which were associated with industrial activity.	
IV.B.5.b.9	Indicate if the Post-Construction Runoff from New Development and Redevelopment Ordinance was **not** developed, adopted, and submitted to RIDEM, explain reasons why, submit proposed schedule for completion and identify person(s) / Department and/or parties responsible for the completion of this requirement. **Date of Adoption:** 12/08/05 (Post Construction – Storm Water Control – No. 567) If the Ordinance was amended in 2019, please indicate why changes were necessary. Please also indicate if amendments have been made based on the 2010 *RI Stormwater Design and Installation Standards Manual*, and provide references to the amended portions of the local codes/ordinances.
The City is in the process of updating the Post-Construction Runoff from New Development and Redevelopment Ordinance to include language requiring developers to address TMDL's when developing in a polluted waterbody's watershed. The process is currently on hold until the City's watershed is defined.	
IV.B.5.b.12	Use the space below to describe activities and actions taken to identify existing stormwater structural BMPs discharging to the MS4 with a goal of ensuring long term O&M of the BMPs.
All municipal owned BMP's are known and listed in the attachment labeled "Municipal BMP's" but are not distinguished by MS4 or combined sewer system watersheds. The City has coordinated with RIDOT and NBC for identification of existing structural BMP's in past reporting years. New BMP's are identified during plan review stages by the Engineering Division at DPW. Developers are required to submit a Stormwater Management Plan and an O&M inspection schedule and maintenance checklist with their plans. A comprehensive list of privately owned BMP's has been developed and mapped on GIS with attributes including owner, required O&M, maintenance contact, etc.	

Additional Measurable Goals and Activities
The City continues to administer an on-street overnight parking program to discourage illegal installation of impervious parking areas in residential lots.

SECTION II.A. - Plan and SWPPP/SESC Plan Reviews during Year 16 (2019), Part IV.B.5.b.4: Review 100% of post-construction BMPs for the control of stormwater runoff from new development and redevelopment projects that result in discharges to the MS4 which incorporates consideration of potential water quality impacts (the program requires reviewing 100% of plans for development projects greater than 1 acre, not reviewed by other State programs). Plan reviews must be conducted by adequately trained personnel.

# of Post-Construction Applications Received: 30 # of Post-Construction Reviews Completed: 30 # of Permits/Authorizations Issued: 30
Summary of Reviews and Findings, include an evaluation of the effectiveness of the program. Post construction stormwater management inspections do not occur, however all construction projects are subject to pre-construction plan review. The Department of Inspections and Standards requires the submittal of a RIDOA form 128 by the engineer of record, requiring reports certifying compliance with submitted plans and specifications. NOTE: The City of Providence has a lower threshold requirement than the RIPDES permit. The City requires a SWPPP for any development of redevelopment disturbing 20,000 square feet or greater. Identify person(s) /Department and/or parties responsible for the implementation of this requirement: The City Engineer, William C. Bombard, P.E., is responsible for implementing this measure. Identify the type and date of training this person(s)/parties has/have received to be considered "adequately trained": Bill Bombard, Chief Engineer, is self-taught in plan review from many years of professional experience.

SECTION II.B. - Post Construction Inspections during Year 16 (2019), Parts IV.G.2.o and IV.B.5.b.10 - Proper Installation of Structural BMPs: Inspection of BMPs, to ensure these are constructed in accordance with the approved plans (the program must include inspection of 100% of all development greater than one acre within the regulated areas that result in discharges to the MS4 regardless of whom performs the review). Inspections must be conducted by adequately trained personnel.

# of Active Construction Projects: 12	# of Construction Projects Completed: 5
# of Site Inspections for proper Installation of BMPs: 0	# of Complaints Received: 0
# of Violations Issued: 0	# of Unresolved Violations Referred to RIDEM: 0
Summary of Enforcement Actions: The City does not perform inspections of structural BMP installation. The Department of Inspections and Standards requires the submittal of a RIDOA form 128 by the engineer/architect of record, requiring reports certifying compliance with submitted plans and specifications. Identify person(s) /Department and/or parties responsible for the implementation of this requirement: The City's Building Official is responsible for implementing this requirement. Identify the type and date of training this person(s)/parties has/have received to be considered "adequately trained": Justin Mateus, Civil Engineer from DPW, received NPDES Certified Stormwater Inspector training on February 16, 2018.	

SECTION II.C. - Post Construction Inspections during Year 16 (2019), Parts IV.G.2.p and IV.B.5.b.11 - Proper Operation and Maintenance of Structural BMPs: Describe activities and actions taken to track required Operations and Maintenance (O&M) actions for site inspections and enforcement of the O&M of structural BMPs. Tracking of required O&M actions for site inspections and enforcement of the O&M of structural BMPs.

# of Site Inspections for proper O&M of BMPs: 0	# of Complaints Received: 0
# of Violations Issued: 0	# of Unresolved Violations Referred to RIDEM: 0
Summary of Activities and Enforcement Actions. Evaluate the effectiveness of the Program in minimizing water quality impacts. Post construction BMP inspections have not been completed by the City in the reporting year. The City is currently working on incorporating this requirement by enforcing private BMP owners to submit an annual report to confirm their BMP O&M compliance. Identify person(s) /Department and/or parties responsible for the implementation of this requirement: It is unclear at this time whether this will be the responsibility of the Department of Public Works, Engineering Division or the City's Building official.	

Strategies for requiring the use of non-structural Low Impact Development (LID) site design practices and techniques into stormwater management designs for new and redevelopment projects, check all that apply in your municipality/MS4:

☐ None
☒ Ordinances or by-laws requiring LID standards (e.g. reduced road widths, % conservation land, etc.)
☐ Ordinances or by-laws requiring LID design at conceptual review (i.e., Pre-application and/or Master Plan) stages for municipal review prior to plans being engineered.
☐ Ordinances or by-laws requiring LID standards only in impaired waterbody drainage areas
☒ Local development regulations requiring use of LID to the maximum extent practicable
☐ LID Guidance available in written form
☐ LID Guidance available at pre-application meetings
☐ Other strategies to ensure incorporation of LID to the maximum extent practicable, describe:

Person(s)/Department responsible for reviewing submissions for LID:

The Department of Public Works and the Department of Planning are responsible for reviewing submissions.

Person(s)/Department/Board responsible for approving submissions for LID at Preliminary and/or Final Review, if applicable:

The Department of Public Works and the Department of Planning are responsible for approving submissions.

Are you aware of the Municipal LID Self-Assessment that was introduced by the DEM and RI NEMO in September 2019 and again during the December 12, 2019 MS4 Gathering?

☒ Yes ☐ No

A final version of the Municipal LID Self-Assessment is expected to be available on the DEM's website in early 2020. Does your community plan to complete it?

☒ Yes ☐ No

If No, why not? _____

_____

Strategies being implemented to ensure long-term Operation and Maintenance (O&M) of privately-owned structural stormwater BMPs, check all that apply in your municipality/MS4:

- ☐ None
- ☒ Ordinances or by-laws identify BMP inspection responsible party
- ☒ Ordinances or by-laws identify BMP maintenance responsible party
- ☒ Ordinances or by-laws identify BMP inspections and maintenance requirements
- ☐ Ordinances or by-laws provide for easements or covenants for inspections and maintenance
- ☐ Ordinances or by-laws require for every constructed BMP an inspections and maintenance agreement
- ☐ Ordinances or by-laws contain requirements for documenting and detailing inspections
- ☐ Ordinances or by-laws contain requirements for documenting and detailing maintenance
- ☐ Ordinances or by-laws contain authority to enforce for lack of maintenance or BMP failure
- ☐ The MS4 is responsible for inspections of all privately-owned BMPs
- ☐ The MS4 is responsible for maintenance of all privately-owned BMPs
- ☐ Establishment of escrow account for use in case of failure of BMP
- ☐ Other strategies to ensure long-term O&M of privately-owned BMPs, describe:

_____

_____

Does your municipality/MS4 require the use BMPs Operations and Maintenance Agreements? ☒ YES ☐ NO

If YES, please indicate if the Operations and Maintenance Agreements include the following:

a.	Party responsible for the long-term O&M of permanent stormwater management BMPs	☒ YES ☐ NO
b.	A description of the permanent stormwater BMPs that will be operated and maintained	☒ YES ☐ NO
c.	The location of the permanent stormwater BMPs that will be operated and maintained	☒ YES ☐ NO
d.	A timeframe for routine and emergency inspections and maintenance of all permanent stormwater management BMPs	☒ YES ☐ NO
e.	A requirement that all inspections and maintenance activities are documented	☒ YES ☐ NO
f.	Annual submission of inspection/maintenance certification/documentation to the MS4	☒ YES ☐ NO
g.	Stormwater management easement for access for inspections and maintenance or the preservation of stormwater runoff conveyance, infiltration, and detention areas and other stormwater controls and BMPs by persons other than the property owner	☐ YES ☒ NO
h.	Steps available for addressing a failure to maintain the stormwater controls and BMPs	☐ YES ☒ NO

Please elaborate, if appropriate:

_____

_____

Does your municipality/MS4 keep an inventory of privately-owned BMPs? ☒ YES ☐ NO

<u>For privately-owned structural BMPs</u>, does your municipality/MS4 have a system for tracking:

a.	Agreements and arrangements to ensure O&M of BMPs?	☐ YES ☒ NO
b.	Inspections?	☐ YES ☒ NO
c.	Maintenance and schedules?	☐ YES ☒ NO
d.	Complaints?	☐ YES ☒ NO
e.	Non-Compliance?	☐ YES ☒ NO
f.	Enforcement actions?	☐ YES ☒ NO

Do you use an electronic tool (e.g. GIS, database, spreadsheet) to track post-construction BMPs, inspections, and maintenance? ☐ YES ☒ NO

If yes, please elaborate on which tools are used:

_____

_____

NOTE: BMP maintenance tasks can be a great way to involve and educate the community to their purpose and function. BMPs have the potential to create a highly interactive environment for community members and volunteers to get involved.

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MINIMUM CONTROL MEASURE #6:
POLLUTION PREVENTION AND GOOD HOUSEKEEPING IN MUNICIPAL OPERATIONS
(Part IV.B.6 General Permit)

SECTION I. OVERALL EVALUATION:

GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:

Include information relevant to the implementation of each measurable goal, such as activities and practices used to address on-going requirements, and personnel responsible. Discuss activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: William C. Bombard, P.E., City Engineer

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IV.B.6.b.1.i	Use the space below to describe activities and actions taken to identify structural BMPs (these include but are not limited to: retention/detention basins, vegetated treatment, infiltration and pre-treatment controls, etc.) owned or operated by the small MS4 operator (the program must include identification and listing of the specific location and a description of all structural BMPs in the SWMPP and update the information in the Annual Report). Evaluate appropriateness and effectiveness of this requirement. **Do you have an inventory of MS4-owned/operated BMPs?** ☒ YES ☐ NO **Total # of MS4-owned/operated BMPs** (does not include CBs or MHs): 35

Structural BMPs owned and maintained by the City are known and listed in the attachment labeled "Municipal BMP's." As new BMPs are introduced, the list is updated. The SWMPP is being updated by the City's sewer/stormwater consultant, CDM Smith, to identify watersheds with TMDLs for total phosphorus and/or bacteria, which will require developers to address those TMDLs when developing within the watersheds.

IV.B.6.b.1.ii	Use the space below to describe activities and actions taken for inspections, cleaning and repair of detention/retention basins, storm sewers and catch basins with appropriate scheduling given intensity and type of use in the catchment area. Evaluate appropriateness and effectiveness of this requirement. **# of MS4-owned/operated BMPs inspected in 2019**: 35 **# of MS4-owned/operated BMPs maintained/cleaned in 2019**:34 **# of MS4-owned/operated BMPs repaired in 2019**: 0 Does your municipality/MS4 have a system for tracking: a. Inspection schedules of MS4-owned BMPs? ☐ YES ☒ NO b. Maintenance/cleaning schedules of MS4-owned BMPs? ☐ YES ☒ NO c. Repairs, corrective actions needed? ☐ YES ☒ NO d. Complaints? ☒ YES ☐ NO Do you use an electronic tool (e.g. GIS, database, spreadsheet) to track stormwater BMPs, inspections, and maintenance? ☒ YES ☐ NO

Most BMP's are maintained by hand or machinery. The York Pond sediment forebay requires a crane to excavate the accumulated sediment.

The Parks Department uses an electronic tool called Green Cities, which is a program that automatically develops work orders and sends them to the appropriate employee to make corrective actions. This tool has proven to be extremely effective.

IV.B.6.b.1.iii	Use the space below to describe activities and actions taken to support the requirement of yearly inspection and cleaning of all catch basins (a lesser frequency of inspection based on at least two consecutive years of operational data indicating the system does not require annual cleaning might be acceptable). Evaluate appropriateness and effectiveness of this requirement. **Total # of CBs within regulated area (including SRPW and TMDL areas):** Unknown, estimated to be 12,000 Citywide including combined system. Numbers below are for MS4 and combined sewer system. **# of CBs inspected in 2019:** 2,974 **% of Total inspected: ~**25% **# of CBs cleaned in 2019:** 2,974 **% of Total cleaned: ~**25% Quantity of sand/debris collected by cleaning of catch basins:1667.77 tons Location used for the disposal of debris: Rhode Island Resource Recovery Corporation Do you use an electronic tool (e.g. GIS, database, spreadsheet) to track the inspections and cleaning of catch basins? ☐ YES ☒ NO

Catch basin digger trucks are assigned to clean as many catch basins in two wards per month. There are 15 Wards in the City, with the trucks rotating between all wards regularly. Catch basins are also cleaned as needed, or as reported by the public. Also, locations prone to flooding are cleaned regularly. After a basin has been cleaned, visual observations are made by the operator. If a deficiency exists, it is reported to the Sewer Superintendent. Although only a fraction of the City's catch basins was cleaning, this measure is effective since catch basin cleaning occurs every day.

The City is looking into tracking the catch basin cleaning activities via GIS instead of a spreadsheet. This is in the works and hopeful to start in 2020.

In additional to the 1667.77 tons of debris removed from the catch basins and disposed of at the Rhode Island Resource Recovery Corporation, there was 1657 tons of debris from catch basin cleaning and street sweeping combined that were classified as a "rejected load." It is unclear how much of the 1657 tons are attributed to catch basin cleaning.

IV.B.6.b.1.iv	Use the space below to describe activities and actions taken to minimize erosion of road shoulders and roadside ditches by requiring stabilization of those areas. Evaluate appropriateness and effectiveness of this requirement.

The majority of City owned roads are constructed with a curb and gutter system. At locations where erosion is evident, efforts are made to stabilize the erosion. This is an appropriate measure due to the fact that the City is extensively built with a curb and gutter system therefore limiting erosion of road shoulders. As road resurfacing and reconstruction projects occur, efforts are made to increase curb reveal to facilitate proper drainage. The DPW Engineering Department and Highway Department are responsible for this measure.

There is one area of erosion on Irving Avenue and River Road that the City has attempted to stabilize multiple times. After a RIDOT resurfacing project, the curb reveal was eliminated, forcing runoff onto the sidewalk and grassed areas. The areas of erosion have been filled with asphalt and crushed stone until a more permanent solution can be contracted. The Department of Public Works and Planning Department are currently working with Crossman Engineering to design a feasible solution to armor the riverbank and introduce green infrastructure to improve water quality.

IV.B.6.b.1.v	Use the space below to describe activities and actions taken to identify and report known discharges causing scouring at outfall pipes or outfalls with excessive sedimentation, for the Department to determine on a case-by-case basis if the scouring or sedimentation is a significant and continuous source of sediments. Evaluate appropriateness and effectiveness of this requirement.

There are no known discharges causing scouring at outfall pipes.

Excessive sedimentation is found at the forebay at York Pond. The watershed is approximately 1.75 sq. miles and has many hills, requiring substantial sand during snow/ice events. The forebay is cleaned to the maximum extent possible, as needed. This is the responsibility of the Parks Department.

IV.B.6.b.1.vi	Use the space below to indicate if all streets and roads within the urbanized area were swept annually and if not indicate reason(s). Evaluate appropriateness and effectiveness of this requirement. **Total roadway miles within regulated area (including SRPW and TMDL areas):** ~405 miles of total city roadways. Regulated miles have not been determined. **Roadway miles that were swept in 2019:** 2,997 **% of Total swept:** Not Tracked. Total roadway miles include roads that have been swept repeatedly. Type of sweeper used: ☒ Rotary brush street sweeper ☒ Vacuum street sweeper Quantity of sand/debris collected by sweeping of streets and roads: 514 tons Location used for the disposal of debris: Rhode Island Resource Recovery Corporation Do you use an electronic tool (e.g. GIS, database, spreadsheet) to track the annual sweeping of streets and roads? ☒ YES ☐ NO
All streets in the City are swept at least twice per year. Primary streets and high traffic areas are swept several more times each year. The street sweeping mileage is recorded each day, but is represented as lane miles swept. The daily sweeping logs that the operators complete record lane miles swept and locations swept by Ward and street. This data is entered into an Excel spreadsheet to track number sweepers employed, as well as roads and lane miles swept, each day. The street sweeping figures are Citywide; including streets within the MS4 regulated area and the combined sewer area. Tracking mileage by MS4, SRPW and TMDL areas does not occur, and is therefore ineffective. The City has mapped the MS4 and is working on identifying the City's watershed map to determine the roads within the regulated area. The City is looking into tracking the street sweeping activities via GIS instead of a spreadsheet. This is in the works and hopeful to start in 2020. In additional to the 514 tons of debris collected from street sweeping and disposed of at the Rhode Island Resource Recovery Corporation, there was 1657 tons of debris from catch basin cleaning and street sweeping combined that were classified as a "rejected load." It is unclear how much of the 1657 tons are attributed to street sweeping.	
IV.B.6.b.1.vii	Use the space below to describe activities and actions taken for controls to reduce floatables and other pollutants from the MS4. Evaluate appropriateness and effectiveness of this requirement.
The City and the Downtown Improvement District post and maintain trash barrels in major pedestrian areas. Trash pickups are made daily or weekly depending on the volume. This is an effective measure in the areas served.	
IV.B.6.b.1.viii	Use the space below to describe the method for disposal of waste removed from MS4s and waste from other municipal operations, including accumulated sediments, floatables and other debris and methods for record-keeping and tracking of this information. Do you have a system for tracking actions to remove and dispose of waste? ☒ YES ☐ NO
Sediment excavated from catch basins and street sweeping are disposed of at the Rhode Island Resource Recovery Corporation (RIRRC). Tonnage slips are collected and maintained by the DPW. Also, RIRRC issues statements with monthly tipping totals by category. The City maintains trash collection facilities in major pedestrian areas throughout the City which helps minimize floatables in the MS4, although quantities are not recorded as citywide trash is mixed at the transfer station.	
IV.B.6.b.4 and IV.B.6.b.5	Use the space below to describe and indicate activities and corrective actions for the evaluation of compliance. This evaluation must include visual quarterly monitoring; routine visual inspections of designated equipment, processes, and material handling areas for evidence of, or the potential for, pollutants entering the drainage system or point source discharges to a waters of the State; and inspection of the entire facility at least once a year for evidence of pollution, evaluation of BMPs that have been implemented, and inspection of equipment. A Compliance Evaluation report summarizing the scope of the inspection, personnel making the inspection, major observations related to the implementation of the Stormwater Management Plan (formerly known as a Stormwater Pollution Prevention Plan), and any actions taken to amend the Plan must be kept for record-keeping purposes.

The City of Providence Department of Public Works facility has floor drains and catch basins which drain to the combined sewer system and, therefore, do not pose a threat to any waters of the state. Regardless, the DPW is ever diligent in maintaining a "clean house." Efforts have been made to eliminate bulk storage of chemicals needed for the operation of the department.

No formal inspection or reports have been issued.

IV.B.6.b.6	Use the space below to describe all employee training programs used to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance for the past calendar year, including staff municipal participation in the URI NEMO stormwater public education and outreach program and all in-house training conducted by municipality or other parties. Evaluate appropriateness and effectiveness of this requirement. How many stormwater management trainings have been provided to *municipal employees* during this reporting period? 9 What was the date of the last training? 12/12/2019 How many *municipal employees* have been trained in this reporting period? 3 What percent of *municipal employees* in relevant positions and departments received stormwater management training? Not tracked Have *municipal employees* that are responsible for inspecting or cleaning catch basins also been trained to detect and report illicit connections or non-stormwater discharges? No

The Rhode Island Department of Environmental Management hosted a training called "Implementing your Stormwater Program – an MS4 Gathering" for all Rhode Island municipalities to attend. From Providence, the Chief Engineer, Deputy Superintendent on the Parks Department, and a Civil Engineer from the Department of Public Works attended the workshop.

IV.B.6.b.7	Use the space below to describe actions taken to ensure that new flow management projects undertaken by the operator are assessed for potential water quality impacts and existing projects are assessed for incorporation of additional water quality protection devices or practices. Evaluate appropriateness and effectiveness of this requirement.

The City continues to asses potential water quality impacts to existing and new flow management projects as areas are being developed or redeveloped and as potential water quality impacts arise during the permitting process. This proves to be an effective and appropriate means to review water quality impacts. If detrimental water quality impacts are foreseen, a permit will not be issued to move forward.

The City Engineer is responsible for this action.

Additional Measurable Goals and Activities

The Parks Department continues to coddle Canadian Geese eggs in association with the US Fish & Wildlife Service to limit the amount of waterfowl and their waste pollutants. The Parks Department has implemented many maintenance procedures, relative to stormwater, including but not limited to: mowing grass slope at higher height to provide filtration, removal of sediment in stormwater retro-fits 3 times per year, and leaving areas of turf adjacent to Park waterbodies unmowed for most of the year.

SECTION II.A - Structural BMPs (Part IV.B.6.b.1.i) These include but are not limited to: retention/detention basins, vegetated treatment, infiltration and pre-treatment controls, etc.

BMP ID:	Location:	Name of BMP Owner/Operator:	Description of BMP:	Frequency of Inspection:
	See attached			
	See attached			
	See attached			

SECTION II.B - Discharges Causing Scouring or Excessive Sedimentation (Part IV.B.6.b.1.v)

Outfall ID:	Location:	Description of Problem:	Description of Remediation Taken, include dates:	Receiving Water Body Name/Description:
N/A				
N/A				
N/A				

SECTION II.C - Note any planned municipal construction projects/opportunities to incorporate water quality BMPs, low impact development, or activities to promote infiltration and recharge (Part IV.G.2.j).

The Forestry Division of the Parks Department continues its yearly neighborhood tree planting program. Some trees are planted in existing tree wells, however the majority are planted in new tree wells, resulting in a decrease of impervious area.

The Department of Public Works and Planning Department are working in conjunction with a design consultant, Crossman Engineering, to provide plans and specifications for the Irving Ave/River Road/Seekonk River green infrastructure retrofit. This project will provide sediment and erosion control along Irving Ave as well as introduce infiltration through several retention filters. The project will also address the erosion on the Seekonk River riverbank. This project is currently in deliberation over funding.

The Department of Public Works is working with a consultant, Crossman Engineering, to design an access road to maintain and service a sanitary sewer line running parallel to a wetland adjacent to the Seekonk River. This sanitary line has been known to surcharge in the past during heavy rain storms so having access to the line is paramount. This project is current stuck in design and CRMC permitting.

In the previous reporting year, the Department of Public Works was instructed to conduct a study on the Mashapaug Pond weir box by RIDOT. Public Works hired a design consultant, VHB, to complete the study. Upon completion, the results were handed off to RIDOT for their design consultant to review. Currently, the weir box project is in the hand of RIDOT.

The Woonasquatucket River Watershed Council is working with the Citizens Bank on San Souci Drive to decrease impervious pavement and introduce green infrastructure through sand filters along the Woonasquatucket River.

The Woonasquatucket River Watershed Council is also working with the Parks Department to install storm tree filters on Pleasant Valley Parkway and Manton Avenue. The tree filters on Pleasant Valley Parkway are completed as of the submission of this report and the tree filters on Manton Avenue are still ongoing.

Groundworks Rhode Island starting installing sidewalk bioswales at various low points in the city. All bioswales will be directly upstream of a catch basin to promote infiltration and increase the water quality before entering the MS4.

SECTION II.D - Please include a summary of results of any other information that has been collected and analyzed. This includes any type of data (Part IV.G.2.e).

The City of Providence continues to participate in the Upper Narragansett Bay Regional Stormwater Management District. Phase II has been completed, with Phase III to start when funding is available.

The City of Providence has finalized and is executing the consent agreement with the Rhode Island Department of Environmental Management regarding its MS4 permit.

TOTAL MAXIMUM DAILY LOAD (TMDL) or other Water Quality Determination REQUIREMENTS

SECTION I. If you have been notified that discharges from your MS4 require non-structural or structural stormwater controls based on an approved TMDL or other water quality determination, please provide an assessment of the progress towards meeting the requirements for the control of stormwater identified in the approved TMDL (Part IV.G.2.d). Please indicate rationale for the activities chosen to address the pollutant of concern.

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: William C. Bombard, P.E., City Engineer

Phone: 401.680.7535 **Email:** wbombard@providenceri.gov

LIST OF IMPAIRED WATERS:

Impaired Water Body: Mashapaug Pond	Pollutants Causing Impairments: Total Phosphorous and Bacteria	Has TMDL been completed? Has MS4 been notified of TMDL requirements? Has MS4 developed a Scope of Work or TMDL Implementation Plan?	☒ YES ☐ NO ☒ YES ☐ NO ☐ YES ☒ NO
Impaired Water Body: Roger Williams Park Ponds	Pollutants Causing Impairments: Total Phosphorous and Bacteria	Has TMDL been completed? Has MS4 been notified of TMDL requirements? Has MS4 developed a Scope of Work or TMDL Implementation Plan?	☒ YES ☐ NO ☒ YES ☐ NO ☐ YES ☒ NO
Impaired Water Body: Woonasquatucket River	Pollutants Causing Impairments: Bacteria	Has TMDL been completed? Has MS4 been notified of TMDL requirements? Has MS4 developed a Scope of Work or TMDL Implementation Plan?	☒ YES ☐ NO ☒ YES ☐ NO ☐ YES ☒ NO
Impaired Water Body: West River	Pollutants Causing Impairments: Bacteria	Has TMDL been completed? Has MS4 been notified of TMDL requirements? Has MS4 developed a Scope of Work or TMDL Implementation Plan?	☒ YES ☐ NO ☒ YES ☐ NO ☐ YES ☒ NO

What kind of public education and outreach strategy does the MS4 implement to target each pollutant of concern? (e.g., signage on installed stormwater controls, resources on website, pamphlets about litter, pet waste, grass clippings, fertilizer use, etc.)

Pollutant of Concern: Bacteria in the Roger Williams park Ponds	Strategy: Install signage discouraging citizens to feed the wild life, especially the geese.	Target Audience: Roger Williams Park attendees

Has the MS4 installed stormwater BMPs to address impairments? ☒ YES ☐ NO

If yes, indicate the type of stormwater control, date installed, ownership, and who is responsible for maintenance:

Type of Stormwater Control: Bioretention Pond in Roger Williams Park	Date Installed: Several installed throughout the reporting year	Who owns it? Parks Department	Who maintains it? Parks Department

Additional enhanced minimum measures used to address water quality issues (e.g., increased street sweeping or catch basin cleaning in areas with high pollutant loading, installation of floatable traps/screens, etc.):

-Street sweeping and catch basin cleaning activities occur more frequently in known flooding zones.
-Hoods are installed in storm laterals from catch basins to the main line to catch any floatables before entering the MS4 whenever a repair is made or a new catch basin is installed.

SPECIAL RESOURCE PROTECTION WATERS (SRPWs)

SECTION I. In accordance with Rule 31(a)(5)(i)G of the *Regulations for the Rhode Island Pollutant Discharge Elimination System* (RIPDES Regs), on or after March 10, 2008, any discharge from a small municipal separate storm sewer system to any Special Resource Protection Waters (SRPWs) or impaired water bodies within its jurisdiction must obtain permits if a waiver has not been granted in accordance to Rule 31(g)(5)(iii). A list of SRPWs can be found in Appendix D of the *RIDEM Water Quality Regulations* at this link:
http://www.dem.ri.gov/pubs/regs/regs/water/h20q09a.pdf
The 2008 303(d) Impaired Waters list can be found in Appendix G of the *2008 Integrated Water Quality Monitoring and Assessment Report* at this link: http://www.dem.ri.gov/programs/benviron/water/quality/pdf/iwqmon08.pdf

If you have discharges from your MS4 (regardless of its location) to any of the listed SRPWs or impaired waters (including impaired waters when a TMDL has not been approved), please provide an assessment of the progress towards expanding the MS4 Phase II Stormwater Program to include the discharges to the aforementioned waters and adapting the Six Minimum Control Measures to include the control of stormwater in these areas. Please indicate a rationale for the activities chosen to protect these waters. Please note that all of the measurable goals and BMPs required by the 2003 MS4 General Permit may not be applicable to these discharges.

No direct efforts have been taken towards the progress of expanding the MS4 Stormwater Program to SPRW's/303(d)'s. As mentioned earlier in the report, there are numerous neighborhood and community partners working within all watersheds with a varied target audience.

SPRWs in Providence: Providence River, Upper Narragansett Bay, Moshassuck River, Woonasquatucket River.

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Office of Water Resources

INSTRUCTIONS FOR THE RI POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES)
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS AND INDUSTRIAL ACTIVITY AT ELIGIBLE FACILITIES OPERATED BY REGULATED SMALL MS4s
ANNUAL REPORT FORM

WHO MUST SUBMIT AN ANNUAL REPORT:

Owners/Operators of regulated small municipal separate storm sewer systems (MS4s) and industrial activities authorized to discharge stormwater under the Rhode Island Pollutant Discharge Elimination System (RIPDES) Stormwater General Permit for Small Municipal Separate Storm Sewer Systems and Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s (hereafter referred to as "the General Permit"), must submit an Annual Report, outlined in Part IV.G of the permit. The Report must be submitted each year after permit issuance by March 10th to track progress of compliance. If you have questions regarding this Annual Report Form contact Jennifer Stout of the Rhode Island Department of Environmental Management (RIDEM), Office of Water Resources, Permitting Section at (401) 222-4700 ext. 7726.

The Annual Report must be submitted to:

RIDEM
Office of Water Resources
RIPDES Program
Permitting Section
235 Promenade Street
Providence, RI 02908
ATTN: Jennifer Stout

INSTRUCTIONS FOR COMPLETION:

GENERAL INFORMATION PAGE:

"RIPDES Permit #"
Include your permit ID # to ensure proper tracking.

"Operator of MS4"
Give the legal name of the person, firm, public (municipal) organization, or any other entity that is responsible for day-to-day operations of the MS4 described in this application (RIPDES Rules 3 & 12). Enter the complete address and telephone number of the operator. Circle the appropriate choice to indicate the legal status of the operator of the MS4.

"Owner of MS4"
If the owner is the same as the operator do not complete this section. Give the legal name of the person, firm, public (municipal) organization, or any other entity that owns the MS4 described in this application (RIPDES Rules 3 & 12). Do not use a colloquial name. Enter the complete address and telephone number of the owner.

"Certification"
State and federal statutes provide for severe penalties for submitting false information on this application form. State and federal regulations require this application to be signed as follows (RIPDES Rule 12);

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information or permit application requirements; and where authority to sign documentation has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor;

For a Municipality, State, Federal or other public site: by either a principal executive officer or ranking elected official.

SECTION I- OVERALL EVALUATION OF BMPS AND MEASURABLE GOALS:

One or more pages, front and back, are provided to report on the status of measurable goals which have been developed to aid in the implementation of strategies, procedures, and programs used to achieve each of the six minimum control measures in Part IV.B of the General Permit. This section provides narrative space for a descriptive explanation and evaluation of the actions taken to satisfy each of the minimum control measures for the 2019 calendar year. Please type or print. If additional space is needed, modify as necessary. Please submit attachments to the appropriate minimum control measure following the format provided.

A Permit ID # has been provided, which refers to the part of the permit where you can find a listing or description of the required measurable goal.

Please provide a general summary of actions taken (implementation of BMPs, development of procedures, events, etc.) to meet the measurable goals of the minimum measure. **Be sure to identify parties responsible for achieving each measurable goal** and reference any reliance on another entity for achieving any measurable goal. Mark with an asterisk (*) if this person/entity is different from last year.

Describe whether each measurable goal was completed within the time proposed in the General Permit or your Stormwater Management Program Plan (SWMPP). Why or why not? Provide a progress report and discussion of activities that will be carried out during the next reporting cycle to satisfy the requirements of the minimum measures. If applicable, assess the appropriateness of the actions taken to meet the requirements of the minimum measure. In determining appropriateness, you may want to consider at a minimum the local population targeted, pollution sources addressed, receiving water concerns, integration with local management procedures, and available resources and violations or environmental impacts eliminated or minimized.

Also, discuss the effectiveness of the implementation of BMPs to meet the requirements of the minimum measure and the overall effectiveness of the minimum measure. Describe your progress towards achieving the overall goal of reducing the discharge of pollutants. Please include assessment parameters/indicators used to measure the success of the minimum measure. Also include a discussion of any proposed changes to BMPs or measurable goals.

After evaluation, it may be necessary to make changes or modifications to your Implementation Schedule if the time frame, appropriateness or effectiveness cannot be assured. If so, please include descriptions of changes or modifications, and detailed justification in the appropriate sections.

SECTION II- ADDITIONAL ANNUAL REPORT REQUIREMENTS

Section II refers to additional reporting requirements that the General Permit requires to be submitted to the Department as part of the Annual Report. Section II requirements apply to Minimum Control Measures 2 through 6.

Minimum Control Measure #2: Section II:
Specify the date of and how the annual report was public noticed. If a public meeting was needed, provide the date and place. Include a summary of public comments received in the public comment period of the draft annual report and planned responses or changes to the program (new or revised BMP's and measurable goals, partnerships, etc.). Be sure to attach a copy of your public notice (Parts IV.G.2.h and IV.G.2.i) to the Annual Report.

Minimum Control Measure #3: Section II.A:
Provide the number of illicit discharges identified in 2019, number of illicit discharges tracked in 2019, number of illicit discharges eliminated in 2019, complaints received, complaints investigated, violations issued and resolved with a summary of enforcement actions, number of unresolved violations that have been referred to RIDEM, the total number of illicit discharges identified to date, and the total number of illicit discharges remaining unresolved at the end of 2019. Include a short narrative describing the extent to which your system has been mapped (Part IV.G.2.m), and the total number of outfalls identified to date.

Minimum Control Measure #3: Section II.B:
List identified MS4 interconnections, including location, date found, operator of the physically interconnected MS4, and originating source of newly identified physical interconnections with other small MS4s. Also note any planned or coordinated activities with the physically interconnected MS4 (Part IV.G.2.k and IV.G.2.l).

Minimum Control Measures #4 & 5: Section II.A:
Identify the number of construction and post-construction plan and SWPPP/SESC Plan reviews completed during Year 16 (2019) and any additional information. This includes, but is not limited to a summary of the reviews, responsible parties, and types of projects reviewed.

Minimum Control Measure #4: Section II.B:
Construction inspection information for erosion and sediment control should be submitted annually as stated in Part IV.G.2.n. Provide a summary of the number of site inspections conducted, inspections that have resulted in enforcement actions, violations that have been resolved and of those unresolved, referred to RIDEM.

Minimum Control Measure #5: Section II.B:
Post-construction inspection information for proper installation of post-construction structural BMPs should be submitted annually as stated in Part IV.G.2.o. This should provide a summary of the number of site inspections conducted, inspections that have resulted in enforcement actions, violations that have been resolved and of those unresolved, referred to RIDEM.

Minimum Control Measure #5: Section II.C:
Inspection information for proper operation and maintenance of post-construction structural BMPs should be submitted annually as stated in Part IV.G.2.p. This should provide a summary of the number of site inspections conducted, inspections that have resulted in

enforcement actions, violations that have been resolved and of those unresolved, referred to RIDEM.

Minimum Control Measure #6: Section II.A:
As prescribed in Part IV.B.6.b.1.i of the General Permit, the MS4 operator must identify and list the specific location and description of all structural BMPs in the SWMPP at the time of application and update the information in the annual report.

Minimum Control Measure #6: Section II.B:
Part IV.B.6.b.1.v of the General Permit states to identify and report annually, as part of the annual report, known discharges causing scouring at outfall pipes or outfalls with excessive sedimentation. Include Outfall ID #, location, description of the problem, any remediation taken, and the ultimate receiving water body.

Minimum Control Measure #6: Section II.C:
As noted in Part IV.G.2.j of the General Permit, specify any planned municipal construction projects or opportunities to include water quality BMPs, low impact development, or seek to promote infiltration and recharge.

Minimum Control Measure #6: Section II.D:
Please include a summary of results of any other information that has been collected and analyzed. This includes any type of data, including, but not limited to, dry weather survey data (Part IV.G.2.e).

TOTAL MAXIMUM DAILY LOAD (TMDL) or other Water Quality Determination REQUIREMENTS

Section I:
Complete this section only if your MS4 is subject to an approved TMDL. TMDL requirements may require the implementation of the six minimum control measures to address the pollutants of concern, and/or additional structural stormwater controls or measures that are necessary to meet the provisions of the approved TMDL. Be sure to identify the approved TMDL and assess the progress towards meeting the requirements for the control of stormwater (Part IV.G.2.d).

Provide a progress report on the present status and discussion of activities that have been accomplished or will be carried out during the next reporting cycle to satisfy the requirements of the TMDL. If applicable, assess the appropriateness of the BMPs selected under each of the six minimum control measures to meet the requirements of the TMDL. In determining appropriateness, you may want to consider violations or environmental impacts eliminated or minimized.

Please include assessment parameters/indicators that will be used to measure the success of the selected BMPs. Also include a discussion of any proposed changes to BMPs or measurable goals.

SPECIAL RESOURCE PROTECTION WATERS (SRPWs)

Section I:
Complete this section only if your MS4, located outside Urbanized Areas or Densely Populated Areas, discharges to:
a SRPW as listed in Appendix D of the *RIDEM Water Quality Regulations* at this link:
http://www.dem.ri.gov/pubs/regs/regs/water/h20q09a.pdf
or
an impaired water body including water bodies with no approved TMDL as listed in Appendix G of the *2008 Integrated Water Quality Monitoring and Assessment Report* at this link:
http://www.dem.ri.gov/programs/benviron/water/quality/pdf/iwqmon08.pdf.
In accordance with Rule 31(a)(5)(i)G in the *Regulations for the Rhode Island Pollutant Discharge Elimination System* (RIPDES Regulations), MS4s were required to incorporate any discharges to these water bodies into their MS4 Program on or after March 10, 2008 unless a waiver has been granted in accordance with Rule 31(g)(5)(iii).

Provide a progress report on the present status and discussion of activities that have been accomplished or will be carried out during the next reporting cycle to incorporate these areas into the MS4's Phase II Stormwater Program.