New Hampshire Small MS4 General Permit Annual Report

City of Portsmouth

Permit Year 3

July 1, 2020 through June 30, 2021

EPA NPDES Permit Number NHR041027

Certification

Authorized representative:

The authorization letter is:

☒ Attached to this document (document name listed below):

☐ Publicly available at the website:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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, 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."

Printed Name: Brian F Goetz

Signature: 

Date: September 22, 2021

Primary MS4 Program Manager Contact Information:

Name: Brian Goetz Title/Position: Deputy Director of Public Works

Department: Department of Public Works

Street Address: 680 Peverly Hill Road

City: Portsmouth State: New Hampshire Zip Code: 03801

Email:bfgoetz@cityofportsmouth.com Phone Number: (603) 610-4419

Small MS4 Authorization

The following annual report, which serves as a self-assessment, is intended to document the activities undertaken over the **reporting period from July 1, 2020 through June 30, 2021** in accordance with the Permit.

The Notice of Intent (NOI) can be found at the following (document name or web address):

https://www.epa.gov/npdes-permits/regulated-ms4-new-hampshire-communities

Compliance activities have been identified and described in the City of Portsmouth's Stormwater Management Plan (SWMP) and Illicit Discharge Detection and Elimination Plan (IDDE). Those documents can be found at the following websites and will be referred to throughout this report:

SWMP: http://files.cityofportsmouth.com/files/dpw/2019SWMPfinal.pdf

IDDE: http://files.cityofportsmouth.com/files/dpw/2019SWMPfinal.pdf#page=107

MCM1 - Public Education and Outreach

Year 3 Activities

BMP: Grass and Fertilizer

Document Name and/or Web Address:
Green Grass & Clear Water Brochure:
http://files.cityofportsmouth.com/files/dpw/1 POSTCARD lawn FINAL.pdf

Description:
Distribution and promotion of flyers produced by UNH Cooperative Extension and NH Sea Grant outlining simple recommendations to keep lawns healthy while reducing water quality impacts - including proper fertilizer techniques and disposal of grass clippings.

Following is the number of flyers that were distributed:
Year 3 = 5,400

Goal was achieved.

Message Date: May 2021

BMP: Pet Waste Disposal

Document Name and/or Web Address:
"Every Drop" post cards
http://files.cityofportsmouth.com/files/dpw/2 EveryDrop_Postcard_Portsmouth_2021.pdf

Description:
Distribution and promotion of "Every Drop" post cards or flyers with proper pet waste management, impacts of improper management, pet waste ordinance, and disposal requirements messaging. May include pledge to pick up pet waste to be made available during dog registration and other events or venues (veterinarians, dog training, groomers, etc.). Every Drop is a collaborative education effort with PREP, NHDES and other partners.

Targeted Audience:
Residents - Pet Owners

Measurable Goal(s):
Dog owners and/or dog walkers are aware of the potential water quality impacts from pet waste, local pet waste ordinances, and how to dispose of pet waste properly. If pledges are signed, there will be an increase of dog owners committed to picking up pet waste.

Following is the number of residents that pledged through the PREP “Every Drop” website:
Year 3 =2000

Goal was achieved.

Message Date: March 2021

BMP: Disposal of Leaf and Grass Clippings

Document Name and/or Web Address:
https://www.cityofportsmouth.com/sites/default/files/2019-10/FallYardWastePostcard2019.10.08_0.pdf

Description:
Distribute and promote informational yard clipping and fertilizer mailers, with messaging about impacts from yard waste to waterbodies, alternatives to dumping yard waste and laws against dumping yard waste near or in waterbodies.

Targeted Audience:
Residential &/or Business and Institutions

Measurable Goal(s):
Residents are aware of the water quality impacts of yard waste dumping near or in water bodies and safe alternatives for yard waste disposal.

Following is the number of yard clipping and fertilizer flyers that were distributed at household hazardous waste day:
Year 3 = 628

Goal was achieved.

Message Date: 08/03/20 AND 05/22/21

BMP: Septic System Maintenance

Document Name and/or Web Address:
http://files.cityofportsmouth.com/files/dpw/4 DPW Get Pumped Brochure 2020.06.10.pdf

Description:
Distributed and promoted brochure or door hangers, directing to website to educate New Hampshire homeowners with septic systems on how to identify, locate and maintain those systems. Get Pumped NH is a collaborated effort between the New Hampshire Association of Septage Haulers (NHASH) and the New Hampshire Department of Environmental Services (NHDES).

Targeted Audience:
Septic System Owners

Measurable Goal(s):
Residents are aware of water quality impacts from septic systems, the importance of maintaining septic systems and how to maintain them.

Following is the number of flyers that were distributed:

Year 3 = 396

Goal was achieved.

Message Date: July 2020

BMP: Industrial Outreach

Description:
Distribute outreach letter and stormwater fact sheet to industrial facilities located within MS4 or municipal boundaries to explain best management practices related to maintenance of parking lots, spill prevention, storage of industrial materials, and winter maintenance. Industrial facility operators were also made aware that they fall under the EPA Multi-Sector General Permit (MSGP) and must meet those requirements as well.

Targeted Audience:
Industrial Facilities

Measurable Goal(s):
Industrial facility operators are aware of the need for proper stormwater best management practices within their facilities and requirements under the EPA Multi-Sector General Permit (MSGP).

Following is the number of letters including fact sheets that were distributed:
Year 3 = 12

Goal was achieved.

Message Date: August 2021

MCM2 - Public Participation

BMP: Public Participation in Stormwater Management Program Development

Description: Due to COVID restrictions the Stormwater Management Program was not publicly reviewed in year 3. It was publically presented on November 18, 2019 and the video of that presentation is linked to on the City's Stormwater website. https://youtu.be/6z-xHYteQ9M Documents and records relating to the permit are retained and available for 5 years to the public at http://files.cityofportsmouth.com/files/dpw/2019SWMPfinal.pdf

Measurable Goal(s):
Input was received and records are maintained. Goal not achieved.

MCM3 – Illicit Discharge Detection and Elimination

BMP: IDDE Legal Authority

The municipality has established legal authority as outlined in the IDDE plan.
http://files.cityofportsmouth.com/files/dpw/2019SWMPfinal.pdf#page=115

BMP: Sanitary Sewer Overflow (SSO) Inventory

The City of Portsmouth has developed the SSO inventory in accordance with permit conditions and in accordance with the applicable regulations and/or municipality's NPDES discharge permit.

The SSO inventory for The City of Portsmouth has been updated as follows: including the status of mitigation and corrective measures implemented.

Number of SSO's identified Year 3: 4
Number of SSO's removed Year 3: 4

BMP: Map of Storm Sewer System

Map of storm sewer system and associated outfalls is complete.

BMP: IDDE Program (Screenings of Outfalls/Interconnections, Catchment Investigations, and IDDE Progress)

All outfalls and interconnections were inspected and dry weather screened. Outfall catchments and interconnections priority ranking were updated based on the information collected during the dry weather inspections. A written IDDE plan has been developed and updated, and written catchment investigation procedures are included.

Outfall identification, characterization and prioritization information has been updated and included in the IDDE plan based on dry weather and wet weather sampling.

The following tasks have been completed in accordance with the permit.

Number of dry weather outfall investigations/screenings: 0

Number of dry weather samples taken: 0

Number of wet weather outfall inspections/sampling events: 58

Number of wet weather samples taken: 49

See attached table of sampling results for 2020 dry weather inspections and 2021 wet weather inspections.

Number of catchment investigations: 0

BMP: Employee Training

A video addressing the issues associated with stormwater, common pollutants of concern, how to identify an illicit discharge, and general IDDE sampling protocols is being prepared by NHDES. The video is estimated to be finalized and available to permittees in August 2021.

The City of Portsmouth held an IDDE training session for municipal staff in July 2020. In addition, as a routine, IDDE materials and training, including information on how to identify illicit discharges and SSOs are made available to applicable employees in accordance with IDDE plan. Training logs are included in Appendix F of the IDDE report.

MCM4 – Construction Site Stormwater Runoff Control

A written site inspection and enforcement program for erosion and sediment control measures was created and is included in our SWMP. All applications for Site Review must include a Stormwater Management & Erosion Control Plan as dictated by the City's Site Plan Review Regulations and are reviewed by the Planning Board and Technical Review Committee. https://files.cityofportsmouth.com/files/planning/SitePlanReviewRegs.pdf#page=47

The following tasks are in progress in accordance with the permit.

Number of site plan reviews completed: 17

Number of inspections: 17

Number of enforcement actions: 0

MCM5 – Post Construction Stormwater Management in New Development and Redevelopment

BMP: Post-Construction Ordinance (due in year 3)

City adopted new Site Plan Regulations in November 2020 requiring new and redevelopment disturbing 15,000 sq ft or more area to treat stormwater using SWA recommendations. https://files.cityofportsmouth.com/files/planning/SitePlanReviewRegs.pdf#page=51

BMP: As-built Drawings

A program to address post-construction stormwater runoff from all new development and redevelopment projects has been developed and implemented, and includes projects that disturb a minimum of one acre, or less than one acre if part of a larger common plan. Procedures for new development and re-development have been adopted. Submission requirements for stormwater management reports and plans are included in local regulations and can be found at: https://files.cityofportsmouth.com/files/planning/SitePlanReviewRegs.pdf#page=51.

The regulations require that all applications shall include a comprehensive Stormwater Management Plan (SMP). The SMP shall include a narrative description and an Existing Conditions Site Plan showing all pre-development impervious surfaces, buildings and structures; surface water bodies and wetlands; drainage patterns, sub-catchment and watershed boundaries; building setbacks and buffers, locations of various hydrologic group soil types, mature vegetation, and topographic contours. Additional submissions include as-built plans and

inspection and maintenance plans for all permanent stormwater control measures. As-built drawings are required to be submitted as a condition for the release of performance security bond.

Number of as-built drawings received: 15

BMP: Long-term Operation and Maintenance Procedures

The City of Portsmouth is currently developing long-term development performance practices for approved privately-owned development projects. As part of the effort to standardize the long-term O&M and inspection submission requirements across all New Hampshire MS4 communities, as well as standardize any non-compliance actions taken by the municipality, the Seacoast Stormwater Coalition is in the process of working with a selected engineering group (VHB) to develop standardized resources, guidance and an inspection template that towns and municipalities can use to better promote, track and enforce the implementation of best management practices for privately-owned parking areas and drainage infrastructure. These are anticipated to be finalize in the fall of 2021 and will be adopted by the City of Portsmouth

BMP: Street Design and Parking Lot Guidance Report (due in year 4)

Deliverables will progress in accordance with the permit and is scheduled for year 4.

BMP: Green Infrastructure Report (due in year 4)

Deliverables will progress in accordance with the permit and is scheduled for year 4.

BMP: List of Municipal Retrofit Opportunities (due in year 4)

Deliverables will progress in accordance with the permit and is scheduled for year 4.

MCM6 – Good Housekeeping and Pollution Prevention for Permittee Owned Operations

A Stormwater Operations and Maintenance Manual was developed and can be found on the City of Portsmouth website. Specific O&M procedures for the BMPs listed below can be found in the linked document.
http://files.cityofportsmouth.com/files/dpw/Portsmouth Stormwater Operations & Maintenance Plan.pdf

BMP: Catch Basin Cleaning Program

A schedule for catch basin cleaning has been established with the goal of ensuring that a catch basin should not be more than 50% full. Catch basin cleanings were properly stored and disposed of so that they did not discharge to receiving waters. This is detailed in the SWMP.

The following tasks are in progress in accordance with the permit.

Number of catch basins within MS4 regulated area: 2,558

Number catch basins inspected in accordance with the SWMP: 550

Number of catch basins cleaned: 440

Total volume **or** mass of material removed: 115 tons

BMP: Street Sweeping Program

A street sweeping program has been established such that all streets with curbing and/or catch basins and permittee-owned parking lots are swept in accordance with permit conditions. Street sweepings were properly stored and disposed so that they did not discharge to receiving waters.

The following tasks are in progress in accordance with the permit.

Number of (lane) miles swept: 790

Mass of swept material: 150 tons

BMP: Winter Road Maintenance Program

A winter road maintenance program has been established with a goal of reducing salt usage. Salt reduction strategies have been implemented as outlined in our SWMP. All road salt storage piles are enclosed/covered to prevent runoff into storm drains and water bodies.

The City of Portsmouth has adopted a Salt Reduction Plan in accordance with appendix H that has been implemented in the MS4 regulated area and/or community-wide. The City of Portsmouth Salt Reduction Plan can be found at:
http://files.cityofportsmouth.com/files/dpw/Portsmouth Salt Reduction Plan-Final.pdf

BMP: Permittee Owned Facilities Inventory

A review of all permittee owned facilities was completed and the inventory has been updated. The SWMP has been updated to reflect this and includes the following additional facilities:

- Senior Activity Center

BMP: O&M Programs and Procedures for Permittee-Owned Properties

O&M programs for all permittee owned facilities have been completed and are included in our SWMP. All maintenance procedures have been implemented for permittee owned facilities in accordance with O&M programs.

BMP: Permittee Owned Treatment Structures

The City of Portsmouth has inspected all permittee owned treatment structures (excluding catch basins)

BMP: SWPPP

SWPPPs were implemented for the following facilities: Department of Public Works where pollutants are exposed to stormwater.

Inspections are completed, corrective actions taken, and employees regularly trained as outlined in the SWPPP(s). The SWPPP(s) and associated documentation are located at http://files.cityofportsmouth.com/files/dpw/Stormwater Pollution Prevention Plan (SWPPP) September 2021.pdf

Number of site inspections for facilities that require a SWPPP completed: 2

Number of corrective actions identified: 0

Number of corrective actions taken: 0

BMP: Stormwater Treatment Structures Inspection and Maintenance Procedures

The City of Portsmouth has completed the inventory and formally inspected all municipally owned BMPs. Maintenance is carried out in accordance with the procedures outlined in the SWMP.

TMDL's and Impaired Bodies of Waters

TMDL(s)

Bacteria/Pathogens

Outfalls to these receiving waters have been ranked as high priority for the IDDE implementation in the initial outfall ranking and enhanced BMP's have been implemented in accordance with the SWMP.

Impairments

Nitrogen

Outfalls to these receiving waters have been ranked as high priority for the IDDE implementation in the outfall ranking and enhanced BMP's have been implemented in accordance with the SWMP.

The City of Portsmouth through its participation in the Seacoast Stormwater Coalition, and continued involvement with the NHDES led Pollutant Tracking and Accounting Program (PTAP) and the Pollutant Loading Maps (aka Hot Spot Maps), will satisfy the tracking and accounting requirement of the municipally-owned structural and non-structural BMP's. Calculations are in accordance with attachments of Appendix F. The City has also initiated the development of a Nutrient Source Identification Report (NSIR) which is expected to be completed by June 2022.

Solids, Oil and Grease (Hydrocarbons), or Metals

Outfalls to these receiving waters have been ranked as high priority for the IDDE implementation in the initial outfall ranking and enhanced BMP's have been implemented in accordance with the SWMP.

Chloride

Outfalls to these receiving waters have been ranked as high priority for the IDDE implementation in the initial outfall ranking.

Tracking of the amount of salt applied to all municipally owned and maintained surfaces, and reporting of salt use has been completed either using the UNH T2 online tool or the New Hampshire DES MS4 annual salt usage reporting form.

The City of Portsmouth through its participation in the Seacoast Stormwater Coalition, and continued involvement with the NHDES-led Green Snow Pro Program, have completed winter road maintenance procedures and continue to develop public education efforts regarding impacts of salt use, methods to reduce salt use on private property, and modifications to driving behavior in winter weather.

The Municipal Green Snow Pro Certification Program bill was delayed during the 2020 legislative session due to COVID-19. The bill was put back into legislation during the 2021 legislative session. In June of 2021, it was noted as "ought to pass" by the House of Representatives.

Created a Salt Reduction Plan which can be found at http://files.cityofportsmouth.com/files/dpw/Portsmouth Salt Reduction Plan-Final.pdf

Additional Required Information

Monitoring or Study Results

Results from all stormwater or receiving water quality monitoring or studies conducted during the reporting period ***not otherwise mentioned above***, where the data is being used to inform permit compliance or permit effectiveness is attached.

FB Environmental Associates conducted water quality monitoring of the Sagamore Creek. A draft report, titled *2020 – 2021 WATER QUALITY MONITORING REPORT FOR SAGAMORE CREEK*, is in production.

Description of Any Changes in Identified BMPs or Measurable Goals

The City of Portsmouth has implemented activities in accordance with the permit and outlined in the SWMP. All BMPs and measurable goals outlined in the SWMP are appropriate.

Activities for the Next Reporting Cycle

The City of Portsmouth will continue to implement activities in accordance with the permit and SWMP. For the following reporting cycle the following activities are planned:

- Snow Rodeo- Winter Maintenance and salt reduction training for all public works employees
- Outreach videos on stormwater BMPs
- Instagram account @Thinkblueportsmouthnh, a platform to find education and outreach videos
- Install additional pet waste sign at City parks
- Continue to host two Household Hazardous Waste Collection Days a year
- Collaboration with the Seacoast Stormwater Coalition on BMP for privately owned outreach and tracking
- Collaboration with UNH Stormwater Center and Department of Environmental Services, hosting Pollution Tracking and Accounting Program (PTAP) training for New Hampshire Seacoast communities
- Collaboration with Strawbery Banke, “Water has a Memory” museum exhibit with Think Blue! Stormwater education and outreach

INVENTORY OF STORMWATER BMPs

SewerID	Description	Year Installed	Type	LAT	LONG	Location
12957	BIO RETENTION TREE WELL/CATCHBASIN		Underground	43.076115	-70.756570	222 State Street
12931	BIO RETENTION TREE WELL/CATCHBASIN	2011	Underground	43.076773	-70.755057	132 State Street
12908	BIO RETENTION TREE WELL/CATCHBASIN/SACK		Underground	43.075770	-70.757406	278 State Street
12805	BIO RETENTION TREE WELL/TREE		Vegetated	43.069365	-70.783228	2 Larry Lane
12808	BIO RETENTION TREE WELL/TREE		Vegetated	43.068936	-70.782280	100 Coakley Road
12809	BIO RETENTION TREE WELL/TREE		Vegetated	43.068818	-70.782205	100 Coakley Road
12815	BIO RETENTION TREE WELL/TREE		Vegetated	43.071972	-70.759997	Library courtyard
12958	BIO RETENTION TREE WELL/TREE		Vegetated	43.076761	-70.755049	132 State Street
12960	BIO RETENTION TREE WELL/TREE		Vegetated	43.076102	-70.756558	222 State Street
12961	BIO RETENTION TREE WELL/TREE		Vegetated	43.075746	-70.757390	278 State Street
12866	CATCHBASIN/SACK		other	43.077008	-70.758042	Market Square
12867	CATCHBASIN/SACK		other	43.077057	-70.757952	Market Square
12868	CATCHBASIN/SACK		other	43.076974	-70.757936	Market Square
12869	CATCHBASIN/SACK		other	43.077110	-70.757846	Market Square
12870	CATCHBASIN/SACK		other	43.078246	-70.757161	Market Square
12887	CATCHBASIN/SACK		other	43.078225	-70.757370	2 Bow Street
12959	CATCHBASIN/SACK		other	43.076938	-70.754697	110 State Street
13748	EQUALIZING BASIN		Vegetated	43.154627	-70.889037	Madbury Treatment Plant
12667	Filterra Tree Box	2013	Vegetated	43.072191	-70.759549	Middle School
12673	Filterra Tree Box	2013	Vegetated	43.072087	-70.759385	Middle School
13835	Filterra Tree Box	2013	Vegetated	43.072594	-70.760017	Middle School
13836	Filterra Tree Box	2013	Vegetated	43.072252	-70.759051	Middle School
13837	Filterra Tree Box	2013	Vegetated	43.072544	-70.758873	Middle School
12673	Filterra Tree Box	2013	Vegetated	43.072109	-70.759420	Middle School Parrott Ave
12667	Filterra Tree Box	2013	Vegetated	43.072196	-70.759563	Middle School Parrott Ave
25478	Flow Control Structure	2015	Vegetated	43.054051	-70.748315	Sagamore Bridge
13423	gravel wetland		Vegetated	43.089223	-70.773793	Laurel Court
25633	gravel wetland		Vegetated	43.074433	-70.777072	private
12871	Hydrodynamic separator		Underground	43.045134	-70.777237	behind dpw
12872	Hydrodynamic separator		Underground	43.060984	-70.808154	off Grafton Road
12873	Hydrodynamic separator		Underground	43.060968	-70.808147	off Grafton Road
12874	Hydrodynamic separator		Underground	43.060957	-70.808165	off Grafton Road
12879	Hydrodynamic separator		Underground	43.046662	-70.775237	front of DPW
13573	Hydrodynamic separator		Underground	43.078708	-70.757210	Ceres Street Park
13432	Hydrodynamic separator		Underground	43.078703	-70.757228	Ceres Street Park
13433	Hydrodynamic separator		Underground	43.078693	-70.757233	Ceres Street Park
13606	Hydrodynamic separator		Underground	43.072141	-70.758811	Parrott Ave (CSO2)
13607	Hydrodynamic separator		Underground	43.072246	-70.758750	Parrott Ave (CSO2)
25194	Hydrodynamic separator	2013	Underground	43.078293	-70.753268	Harbour Place Park
25354	Hydrodynamic separator	2016	Underground	43.075523	-70.765408	Brewster Street
25356	Hydrodynamic separator		Underground	43.075499	-70.765260	Brewster Street
25357	Hydrodynamic separator		Underground	43.075506	-70.765245	Brewster Street
25358	Hydrodynamic separator		Underground	43.075578	-70.765321	Brewster Street
25359	Hydrodynamic separator		Underground	43.075587	-70.765307	Brewster Street
25568	Hydrodynamic separator		Underground	43.075133	-70.764921	Brewster Street
25545	Hydrodynamic separator		Underground	43.075137	-70.764911	Brewster Street
25566	Hydrodynamic separator		Underground	43.075185	-70.764961	Brewster Street
25546	Hydrodynamic separator		Underground	43.075153	-70.764925	Brewster Street
25585	Hydrodynamic separator		Underground	43.075332	-70.765094	Brewster Street
25591	Hydrodynamic separator		Underground	43.075336	-70.765085	Brewster Street
25577	Hydrodynamic separator		Underground	43.075189	-70.764953	Brewster Street
25576	Hydrodynamic separator		Underground	43.075170	-70.764924	Brewster Street
25594	Hydrodynamic separator		Underground	43.075176	-70.764942	Brewster Street
6146	Hydrodynamic separator	2011	Underground	43.071664	-70.771988	Bartlett Street
6145	Hydrodynamic separator	2011	Underground	43.071692	-70.771929	Bartlett Street
tbd	Hydrodynamic separator	2019	Underground	43.082408	-70.782916	1179 Maplewood Ave
13312	Hydrodynamic separator	0	Underground	43.045170	-70.777299	behind dpw
13313	Hydrodynamic separator	0	Underground	43.045145	-70.777260	behind dpw
13314	Hydrodynamic separator	0	Underground	43.045143	-70.777255	behind dpw
9792	Hydrodynamic separator	0	Underground	43.075000	-70.744764	Peirce Island Road (outdoor pool)
13316	Hydrodynamic separator	0	Underground	43.046664	-70.775259	front of DPW
13317	Hydrodynamic separator	0	Underground	43.046636	-70.775223	front of DPW
11827	Hydrodynamic separator	2004	Underground	43.071766	-70.755958	South Playground Parking Lot
12814	Hydrodynamic separator	0	Underground	43.073204	-70.758091	Parrott Ave (CSO1)
13311	Hydrodynamic separator	2004	Underground	43.071398	-70.756424	South Playground
424	infiltration field		Underground	43.085363	-70.785268	Alumni Field
26411	infiltration swale		Vegetated	43.057626	-70.787896	Stump Dump Greenland Road
tbd	Pocket Pond	2019	Vegetated	43.082910	-70.784564	Maplewood Ave
13743	rain garden	0	Vegetated	43.058422	-70.783613	Plains Park
25631	rain garden	0	Vegetated	43.074330	-70.777201	private
6383	rain garden		Vegetated	43.085145	-70.785661	Alumni Field
2699	rain garden	2012	Vegetated	43.058120	-70.764932	Portsmouth High School
26412	rain garden		Vegetated			9 Schurman Ave
12812	Sediment Box (2000 gallons)	2011	Underground	43.066560	-70.753677	50 Clough Drive (Little Harbor School)
12952	STORMWATER FILTER UNIT	2011	Underground	43.077775	-70.753141	State Street
12949	STORMWATER QUALITY UNIT	2011	Underground	43.077623	-70.753340	State Street
25617	Tree Filter	2015	Vegetated	43.062535	-70.755743	Sagamore Ave

INVENTORY OF STORMWATER BMPs

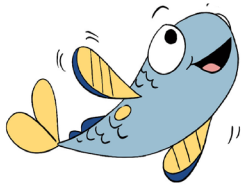
25618	Tree Filter	2015	Vegetated	43.062092	-70.755291	Sagamore Ave
25619	Tree Filter	2015	Vegetated	43.061493	-70.754603	Sagamore Ave
25620	Tree Filter	2015	Vegetated	43.060830	-70.753942	Sagamore Ave
25615	undergroun infiltration basin	2017	Underground	43.035481	-70.785752	private
25480	Underground sand Filter	2015	Underground	43.054034	-70.748343	Sagamore Bridge
25481	Underground sand Filter	2015	Underground	43.053990	-70.748308	Sagamore Bridge
25482		2015	Underground	43.053960	-70.748282	Sagamore Bridge

DRY WEATHER SAMPLING ANALYSIS

Assessment Unit ID	Assessment Unit Name	Sample Date	Outfall ID	Temp. (F.)	Ammonia (mg/L)	Surfactants (mg/L)	Chlorine (mg/L)	Conductivity (us/cm)	Salinity (ppt)	E. coli	Enterococcus (MPN)	Chloride (mg/L)	Total Phosphorous (mg/L)	Total Nitrogen (mg/L)	pH
permit illicit indicator thresholds				**na**	**> 0.5**	**> 0.25**	**> 0.02**	**na**	**na**	**> 406**	**> 104**	**> 260**	**> 1.0***	**> 1.0***	
NHRIV600031002-01	Berrys Brook	8/27/2019	4267	58.0	0.00	0.2	*0.04*	440.8	0.30	8.5			0.01		6.56
NHRIV600031002-01	Berrys Brook	10/9/2020	1335	65.3	0.00		*0.02*	351.3	0.26						7.13
NHRIV600031002-01	Berrys Brook	8/27/2019	3851	65.3	0.00		*0.02*	773.5	0.53	18.7			0.04		7.72
NHRIV600031002-02	Lower Grafton	9/17/2019	4107	72.0	*2.50*	0.2	*0.04*	1,073	7.50	*488.4*		*270*	0.07		7.8
	Lower Hodgson Brook	8/15/2019	2789	68	0	*0.25*	0	1204	0.605	83.6					6.71
NHEST600031001-02	Lower Pisatiqua	7/13/2020	12564	63	*0.5*	*0.3*	0	630			*167.4*	13.59			
NHEST600031001-02	Lower Pisatiqua	7/16/2020	12579	65.1	<0.5	*0.3*	0	3850			*>2419.6*				
NHEST600031001-02	Lower Pisatiqua	7/16/2020	13924	64.6	<0.5	*0.9*	0	17255			*214.2*				
NHEST600031001-02	Lower Piscatiqua	8/15/2019	12653	68	0.1	*0.3*	0	1302	0.65		48.6	*340*		<1.0	
NHEST600031001-02	Lower Piscatiqua	8/15/2019	12471	66	0	*0.4*	0.005	5760	3.2		44.8	*1900*		1.8	8.12
NHEST600031001-10	North Mill Pond	8/27/2019	12523	73.0	0.00	*2.5*	*0.12*	29,900	38.4		*866.4*				7.17
NHEST600031001-10	North Mill Pond	10/9/2020	12522	73.0	0.00	*2*	*0.12*	13,250	11.7						8.05
NHEST600031001-10	North Mill Pond	8/27/2019	12555	72.0	0.00	*2*	*0.12*	1,894			*>2419.6*				8.05
NHEST600031001-10	North Mill Pond	8/27/2019	12519	72.0	0.00	<0.1	*0.02*	2,517	1.9		*>2419.6*				7.9
NHEST600031001-10	North Mill Pond	9/17/2019	12518	72.0	0.00	0.1	*0.04*	2,528	1.9		*>2419.6*				7.42
NHEST600031001-10	North Mill Pond	9/17/2019	12472	72.0	0.00	*0.5*	*0.02*	26,880	26.9		*435.2*				7.02
NHEST600031001-10	North Mill Pond	9/17/2019	12560	72.0	0.00	<0.1	0	5,343	4.26		*435.2*				6.79
NHEST600031001-10	North Mill Pond	9/17/2019	12517	72.0	0.00	*0.3*	*0.24*	10,750	9.29		*>2419.6*				6.61
NHEST600031001-10	North Mill Pond	9/17/2019	12513	72.0	0.00	*0.4*	*0.04*	14,570	13.1		*435.2*				7.14
NHEST600031001-10	North Mill Pond	6/9/2020	12511		<0.05	<0.1	0	1112			*517.2*				
NHEST600031001-09	South Mill Pond	8/27/2019	12701	73.0	0.00	*2*	*0.04*	13,800	25.8		28.3				7.17
NHEST600031001-03	Upper Sagamore Creek	8/27/2019	12738	69.4	0.00	0.2	*0.06*	1,377	0.97		9.7			1.2	7.43
NHEST600031001-03	Upper Sagamore Creek	10/9/2020	1168	71.1	0.00		*0.04*	1,345	0.95						8.03
NHEST600031001-03	Upper Sagamore Creek	8/15/2019	3027	67.64	0	0.18	*0.05*	969	0.48		38	250	0.02	1.3	
NHEST600031001-03	Upper Sagamore Creek	8/15/2019	1158	78.8	0.1	0.2	0	1156	0.57		*136.8*	*270*	0.02	<1.0	7.75
NHEST600031001-03	Upper Sagamore Creek	8/15/2019	3179	78.8	0	0.2	*0.1*	305	0.14		*235.2*	49	0.04	<1.0	
NHEST600031001-03	Upper Sagamore Creek	7/13/2020	5810	71.6	<0.5	*0.3*	*0.02*	155.1			3	15.45			

Location	Did Discharge Enter Surface Water of MS4	Date/Time of Start	Date/Time of End	Estimated Volume	Description of Occurrence	Mitigation Efforts	Mitigation Efforts Planned
98 Brewster Street, 255 Vaughan Street, 105 Marcy Street, 230 Maplewood Ave, 126 Bridge Street,	Yes, all locations discharged into either an MS4 structure or directly overland into surface water bodies	6:00 pm, June 30, 2020	July 1, 2020	Unknown	The combined storm and sanitary sewer system significantly surcharged due to intense rain and a reduced capacity due to the sewer force main repairs on the Pierce Island Road Bridge	The City monitored all overflows and cleaned the areas after flow had stopped.	The City is under contract to design work to lessen the amount of inflow and infiltration into its system. The City is also ongoing in its efforts to separate the sewer and stormwater systems to lessen the effect of storm events. The repairs to the Pierce Island Road Bridge sewer force main are in the bidding stage.
Pierce Island	No, the SSO did not discharge to either the MS4 or open water source	6:15 am, September 10, 2020	September 11, 2020	80,000 gallons	The 24 inch sewer force main on pierce islnad broke. The cause is being investigated	The force main was isolated and the second force main is conveying the seweage from the Mechanic Street Pump Station to the Pierce Island Treatment Plant. All discharge was captured in excavations and taken by septic trucks to the PIWWTF	The City is cutting out the broken pipe section to investigate the cause of the break. If there is an indication of a larger issue then it will be addressed.
Haven Road	Yes, the SSO discharged into an MS4 structure and then the Piscataqua River	2:05 pm September 21, 2020	2:15 pm, September 21, 2020	50 Gallons discharged, approximatly 1 gallon into MS4 structure	A brick was found in the invert of SMH 1119 causing a blockage and the manhole surcharged.	The City drained the SMH and removed the brick.	
Peirce Island	No, the SSO did not discharge to either the MS4 or open water source	March 15, 2021	March 15, 2021	Unknown	Temporary trailers used during the construction of the Peirce Island WWTF were connected to the wetwell and pumps of the Peirce Island pool house. During a winter cleaning of the pool house it is thought that the pumps were turned off due to the seasonal nature of the facility. This caused the wetwell to surcharge and overflow to a grass area.	The City turned the pool house sewer pump station back on and ended the SSO	The trailers connected to the pump station have been disconnected and removed from site.

Image: Prescott Park



GET GREENER GRASS & CLEANER WATER WITH YOUR LAWN CARE
THINK BLUE! CITY OF PORTSMOUTH DPW STORMWATER DIVISION
CityofPortsmouth.com/public-works/stormwater

Follow these 4 steps for greener grass and cleaner water!

1. Choose the Right Grass Seed

Focus on having a lawn where grass will grow easily and where it will be used for outdoor activities. Choose grass varieties that require less maintenance. Here in NH that means more fescues and less Kentucky bluegrass or ryegrass. In shaded areas, select shade-tolerant turf fescues. White clover helps naturally hold nitrogen in soil – and attract bees. Overseed bare spots.

2. Don't Overwater

1 inch of water per week from rain or watering is enough. Overwatering can flush nutrients into waterbodies or groundwater.

3. Test Your Soil

Have your soil tested. Visit: extension.unh.edu/programs/soil-testing-services. Sometimes all you need to improve your lawn is to adjust the soil pH or add organic matter. Check for other problems like pests, sun/shade conditions and trying to grow the wrong type of grass for your location.

4. Mow Smart

Set your mower blade to 3 inches to encourage longer, stronger roots. Leave the clippings after mowing so they can return nutrients to the soil. NEVER dispose of clippings in drainage areas, storm drains, or waterbodies!

THINK CLEAN WATER, THINK BLUE! For information visit: Cityofportsmouth.com/public-works/stormwater

Take the Pledge:
"Scoop the Poop!"

stateofourestuaries.org
/everydrop/petpledge/

EVERY DROP

Small Changes. Big Difference.

We love our dogs! But dog waste carries harmful bacteria that can make our waters unsafe for drinking or swimming. So always pick it up and throw it in the trash!

This message helps the City meet its educational outreach requirements for the USEPA MS4 Stormwater Permit.

Stormwater is a pollution problem that affects everyone and if we all do our part to help, we can reach our goal of clean and healthy waterways.

Many NH towns have over 1,000 dogs living in them, and each dog "goes" once or twice a day. That's a lot of poop! Not only is it gross when it's left around, it can also be dangerous. Harmful bacteria and parasites—such as Giardia or Salmonella—that live in pet waste can come into contact with people or other pets, or wash into waterways and storm drains.

Take the pledge to Scoop the Poop! Please go to:

stateofourestuaries.org/everydrop/petpledge

or scan the QR code to go straight to the page.

EVERY DROP
Small Changes. Big Difference.

We love our dogs! But dog waste carries harmful microorganisms that can make our waters unsafe for swimming and drinking. Picking it up can be a major benefit, particularly in paved areas, and near streams and lakes.

Picking up our dog's waste and throwing it out properly is a small effort that can make a big difference in keeping our waters clean.

Rake It or Leave It

WHAT TO DO WITH YOUR LEAVES AND GRASS CLIPPINGS

WHY DOES IT MATTER?

You Choose - your leaves and grass clippings can be a valuable resource OR a source of water pollution.

As a resource . . .

Mulched leaves or grass clippings on your lawn add valuable nutrients and organic matter. Grass clippings provide a source of slow-release nutrients reducing the amount of fertilizer needed to none or at least half. A thin layer of mulched leaves will break down and add much needed organic matter.

Composting leaves and grass clippings saves money. Compost is natural recycling. Compost soil can be used as a top dressing on your lawn or garden beds reducing or eliminating the need for fertilizer and mulch.

As a source of water pollution . . .

Decaying leaves and grass can negatively impact aquatic creatures and organisms in water bodies. As organic matter decomposes in the streambeds and use up oxygen that other organisms such as dragonfly larvae, crabs, and fish need to live.

Yard waste on stream banks smothers natural vegetation. Leaves or grass dumped on the shoreline block sunlight and smother the natural plant life that provide food and cover to animals such as turtles, ducks, chipmunks, and deer.

Yard waste near water bodies releases nutrients causing increased algae and odors. Nutrients in yard waste placed near water ways will slowly make their way into the water stimulating algae growth and other nuisance weeds that form foul-smelling, green mats on the water surface and degrade water quality.

WHAT YOU CAN DO:

Remove the bag from your lawnmower or use a mulching lawnmower to add nutrients to your lawn and to avoid having to dispose of the grass clippings. This will also reduce the need for fertilizers.

NEVER dispose of leaves or clippings in or near storm drains, drainage channels (where water drains rain or melting snow), wetlands or water bodies!

Put yard waste on the curb in a paper bag or reusable, clearly marked "Yard Waste" container to be picked up by DPW staff. Brush must be cut into lengths not exceeding 4 feet, contain no pieces greater than 5 inches diameter, and be tied in bundles not exceeding 1 foot in diameter and 50 pounds total.

Drop off your yard waste to be composted at the City's Recycling Center located at 680 Peverly Hill Road.

Start backyard composting (away from surface waters). See "how-to" brochure.

www.des.nh.gov/organization/divisions/waste/swrtas/documents/compost_flier.pdf

City of Portsmouth
Department of Public Works, Stormwater Division
www.cityofportsmouth.com/publicworks/stormwater

SPREAD THE MESSAGE

Portsmouth cares about clean water and pollution prevention. We are sending this flyer out to help improve water quality in our local waterways. This outreach message also helps our community meet US Environmental Protection Agency (EPA) requirements to share pollution prevention information with our residents.

Yard waste dumped in or near streams is also against the law!

In an effort to protect wetlands and surface waters, the NH legislature passed a law that prohibits filling streams and wetlands with waste materials, including yard waste. RSA 482-A:3

SOLID WASTE & RECYCLING FACILITY INFORMATION

RECYCLING CENTER LOCATION:

Portsmouth Department of Public Works
680 Peverly Hill Road
Portsmouth, NH 03824
(603) 427-1530

RECYCLING CENTER HOURS:

Tuesday / Wednesday / Thursday 7:45AM - 3:15PM
Saturday 8:00AM - 2:00PM

extended hours from July 1st to Columbus Day
Tuesday 7:45AM - 6:15PM

www.cityofportsmouth.com/publicworks/solid-waste-recycling/portsmouth-recycling-center

STORMWATER PROGRAM CONTACTS

NHDES

NH Department of Environmental Services
(603) 271-7889 or (603) 271-1352
Deborah.Loiselle@des.nh.gov
www.des.nh.gov/organization/divisions/water/wmb/was/index.htm

City of Portsmouth
Department of Public Works
www.cityofportsmouth.com/publicworks

Stormwater Division
www.cityofportsmouth.com/publicworks/stormwater

City of Portsmouth
Department of Public Works
Stormwater Division
680 Peverly Hill Rd
Portsmouth, NH 03801

PROTECT YOUR *FAMILY*

If your septic system gets clogged with too much solid waste, it can force the wastewater to back up into your house... it can also overwhelm your leach field, which will turn your yard into a soggy mess. The bacteria in wastewater are not just smelly – they are also a health hazard!

PROTECT YOUR *COMMUNITY*

If a septic system fails, untreated wastewater can run off into local lakes, ponds or streams, negatively impacting water quality, wildlife and community enjoyment of the water body.

PROTECT YOUR *WALLET*

Getting your tank pumped costs about *$250–$500* every *3–5 years*. If you have a failure, it could cost you *$6,000–$15,000* to *replace* or *repair* your system.

WHY SHOULD I *PUMP?*

Every home generates wastewater – via toilets, showers, sink drains, and dish and clothes washers – which must be treated and disposed of properly to protect human health and the environment.

WHEN SHOULD I *PUMP?*

Don't wait for a failure! Septic tanks should be inspected or pumped every *3–5 years*. Get Pumped today!

Only contact a NHDES-licensed septage hauler.

Visit *getpumpednh.com* to find a New Hampshire Association of Septage Haulers (NHASH) member in your area.

COMMUNITY *MESSAGE*

Our community cares about clean water and is doing its part to help prevent water pollution in local waterways. This outreach message helps our community meet US Environmental Protection Agency (EPA) requirements (including as part of the MS4 program) to share pollution prevention information with its residents.

City of Portsmouth Department of Public Works
680 Peverly Hill Road, Portsmouth NH 03801
CityofPortsmouth.com/publicworks/wastewater

Produced in partnership:

NHASH

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

nhash.com

www.des.nh.gov

GET PUMPED! New Hampshire

Don't wait for a *failure* to schedule a septic system pumpout

DO I HAVE A *SEPTIC SYSTEM?*

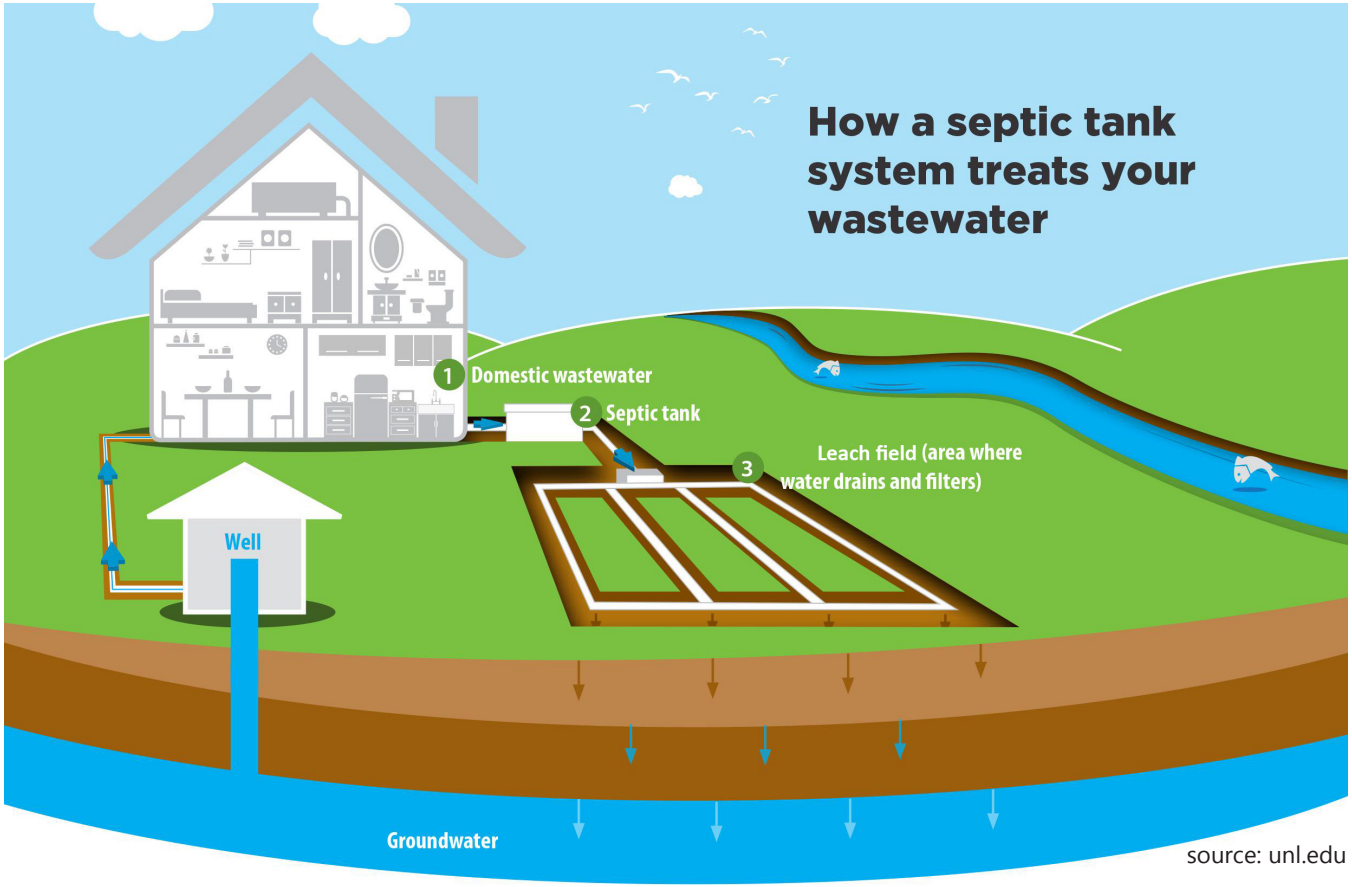
You most likely have a septic system if:

- You are on well water and you don't pay a water or sewer utility bill.
- Your neighbors have septic systems.

HOW DO I FIND MY *SEPTIC?*

- Check your yard for lids or manhole covers.
- Have a NHDES-licensed septage hauler to help you find the system. Find one here: *https://www.des.nh.gov/organization/divisions/water/wweb/documents/nh_septage_haulers.pdf*
- Request records through the NHDES Subsurface Systems File and Archive online form: *https://onlineforms.nh.gov/?FormTag=NHDES-W-05-010*

HOW DOES IT *WORK?*



source: unl.edu

1. Whatever goes down the drain is your *domestic wastewater*. All drains in your house lead to one large drainage pipe that empties into your septic tank.
2. The *septic tank* is a buried, water-tight container, usually made of concrete or polyethelene. It holds the wastewater long enough for solids to settle to the bottom, while oils and grease float to the top. Special compartments keep the solids from flowing into the leach field.
3. Liquid wastewater leaves the tank and enters the *leach field*, where special pipes allow the water to slowly seep into the surrounding soil, naturally removing harmful bacteria, viruses and nutrients before it renters the groundwater.

SEPTIC SYSTEM *MAINTENANCE*

It's not just about pumping! Here are every-day things you can do to help maintain your system.

- *Conserve water* Fix leaky faucets and toilets to prevent washing away the healthy bacteria your system needs.
- *Space out water use* Spreading out washing machine loads and and other large water uses (showers, dishwashers, etc.) gives your system a chance to work between loads.
- *Only flush human waste and toilet paper* "Flushable" may only mean that it fits down the drain... if in doubt, throw it out.
- *Don't park or drive on your system* This can easily damage the septic system.