



TOWN OF KITTERY
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REPORT TO PLANNING BOARD

Meeting Date: May 23, 2019
From: Jessa Kellogg, Shoreland Resource Officer/Stormwater Coordinator
Subject: MS4 General Permit for Stormwater Discharges

EXECUTIVE SUMMARY

The Town of Kittery is subject to the 2013-2018 General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4 General Permit), a federally mandated program under the Clean Water Act administered by the Maine Department of Environmental Protection. One of the permit requirements specifies that certain municipal staff and elected officials be made aware of the MS4 General Permit and its requirements on an annual basis.

BACKGROUND

In 2003 the Town of Kittery became subject to the MS4 General Permit. The 2013-2018 General Permit has been administratively continued and currently we are in Permit Year 6. The MS4 General Permit applies to the "Urbanized Area" of the Town and is designed to reduce the discharge of pollutants from the Town's regulated, separated storm drain system, to protect water quality, and satisfy appropriate requirements of the Clean Water Act.

33 U.S.C 1251 Section 402(p) of the Clean Water Act
40 CFR 122.26 Stormwater discharges (applicable to State NPDES programs)
38 M.R.S.A §413 Maine Water Pollution Control Law

CURRENT SITUATION

The attached figure shows the Urbanized Area for the Town of Kittery based on US Census data for population density and proximity to population density. The attached brochure provides information on what stormwater and stormwater infrastructure is, what common stormwater pollutants are, outlines the different permit requirements, and details how Kittery is meeting these requirements.

The MS4 Permit requires that Town staff complete many different tasks. The following is a listing of a few of them:

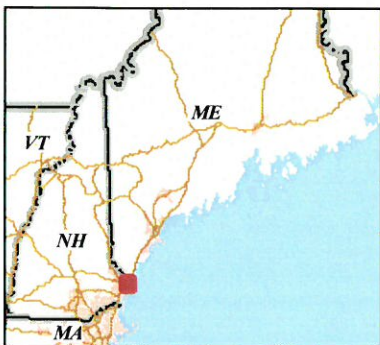
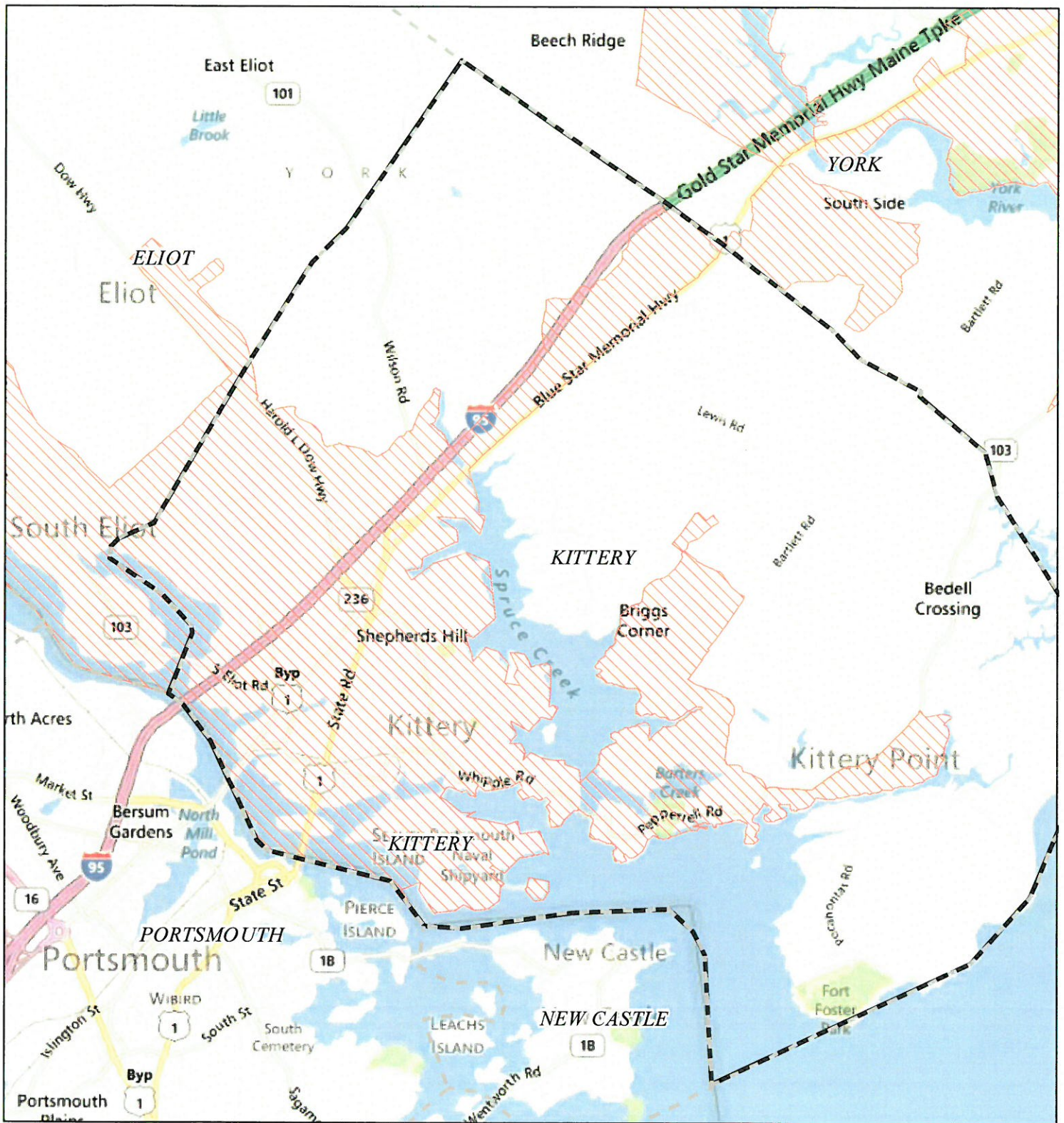
- Annually provide information about stormwater and the MS4 General Permit to members of the Town Council, Planning Board, Conservation Commission, Shellfish Committee and certain municipal staff.
- Prepare a Five Year Stormwater Program Management Plan describing how the Town will implement the Permit from 2013 to 2018 (available on the Town Website in the Town Documents section).
- Educate the public about stormwater issues to raise their awareness. The Town teams with four other communities in York County, in a group called the Southern Maine Stormwater Working Group, and with other communities in the state (using the www.thinkbluemaine.org website) to implement many of the public education programs more cost effectively than if the Town had to implement them alone.
- Encourage the public to change their behaviors so that they are more protective of stormwater.
- Involve the public in stormwater protection efforts by conducting programs such as stream clean-ups, storm drain stenciling, or attendance at workshops.
- Prepare and maintain a map of the storm drain system and use it to conduct inspections of catch basins, outfalls and ditches to evaluate them for signs of illicit discharges (i.e. sewage, litter, lawn clippings, pet waste, oil). The inspections are also used to identify needed maintenance issues. The storm drain system map can be accessed from the Town website homepage by clicking on the GIS Maps link.
- Conduct inspections at construction sites for sediment and erosion control issues.
- Perform street sweeping, catch basin cleaning and maintenance of the storm drain system.
- Implement good housekeeping practices at all municipal operations where stormwater can become polluted.
- Prepare annual reports documenting this information and provide it to the Maine DEP annually.

The following people are primarily responsible for implementing the MS4 General Permit and can be contacted for more information:

Jessa Kellogg – Shoreland Resource Officer/Stormwater Coordinator

David Rich – Commissioner of Public Works

Kendra Amaral – Town Manager



**NPDES Phase II Stormwater Program
Automatically Designated MS4 Areas**

Kittery ME

 Regulated Area (2000 + 2010 Urbanized Area)



Town Population: **9945**
 Regulated Population: **7034**
 (Populations estimated from 2010 Census)



Urbanized Areas, Town Boundaries:
 US Census (2000, 2010)
 Base map © 2010 Microsoft Corporation
 and its data suppliers

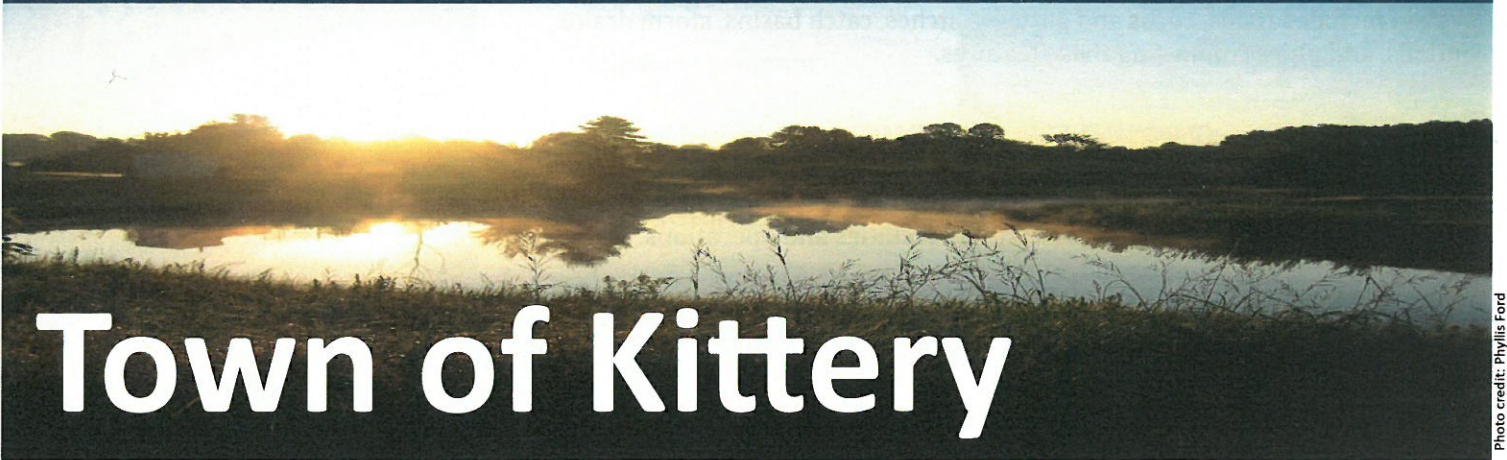


Photo credit: Phyllis Ford

Town of Kittery

What is stormwater runoff?



Stormwater runoff is precipitation (rain or melted snow) that flows over land.



Storm drains collect runoff and convey it without treatment directly into waterbodies. Polluted runoff affects drinking water, human health, wildlife, and property values.

Why are stormwater drainage systems important?



This infrastructure provides drainage that protects roads and the built environment from failure and flooding.



Adequately sized drainage systems are a critical utility for new development and urban expansion.

Why is our work important?



Drainage systems require periodic rehabilitation, repair, and maintenance to continue to function effectively. In the face of changing frequency and higher intensity storms, drainage systems will be even more critical to our future economy and growth by alleviating flood risks which cause erosion and property damage. Municipalities have an important responsibility in managing and reducing the pollution in stormwater drainage systems.

What are common stormwater pollutants?



Soil, sand, and sediments cloud the water and smother wildlife habitat.

Chemicals (fertilizer, weed & bug killers, vehicle fluids, coal tar pavement sealers, etc.), are carried with runoff and can be toxic to wildlife.

Pet waste contains bacteria that can wash into swimming areas and create health hazards, and may contribute to beach closures.



Salt, which is spread on roads, sidewalks, and parking lots to melt snow and ice, dissolves in water or snowmelt. Once salt gets into our water it cannot be removed. Salt in our waterways can be toxic to wildlife.

Debris, like cigarette butts, household trash, lawn clippings, yard waste, and other forms of litter, is unsightly and can harm wildlife.

What is an MS4?

MUNICIPAL SEPARATE STORM SEWER SYSTEM, or MS4, means a stormwater conveyance that is separated from sanitary sewer systems. The storm sewer system includes roads, curbs and gutters, ditches, catch basins, storm drains, outfalls, and pipes connecting these features.

Kittery is subject to a **CLEAN WATER ACT PERMIT**, administered by the Maine Department of Environmental Protection (DEP), that allows the Town to discharge runoff into waterbodies if measures are taken to minimize pollution from the storm sewer system and municipal facilities and operations. This permit is referred to as the MS4 General Permit.

Under the Federal CLEAN WATER ACT, some municipalities must have a permit that allows them to direct stormwater to waterbodies in their communities, provided that specific steps are taken to minimize pollution.

IMPLEMENTATION OF THESE STEPS IS MANDATORY FOR KITTERY

A municipality-wide effort is needed to meet permit requirements.



Who is regulated, and what does it mean for Kittery?

Municipalities, transportation agencies, public universities, prisons, military bases, and other state and federal facilities are subject to MS4 General Permit regulation.

Regulated municipalities are determined by population density and proximity to population density, based on US Census Bureau data. The regulated municipalities in the State of Maine are shown on the map to the right.

As a regulated municipality, Kittery is subject to:

- Full compliance with permit requirements, including six minimum steps outlined in the permit (see opposite page). Permit requirements are subject to change and may increase with each permit cycle.
- Higher costs (operational, permitting, capital improvements, etc.) than non-regulated municipalities.
- Heightened scrutiny from Maine DEP, US EPA, and environmental or citizen action groups.
- Identification and improvement of the municipality's priority waterbody. Kittery's priority waterbody is Spruce Creek.



What are the minimum steps required in the MS4 General Permit?

- 1 Implement public education programs to help the community and municipal officials understand their roles in keeping stormwater clean.
- 2 Provide opportunities for the public to participate in program development and implementation.
- 3 Identify and eliminate illegal sewer connections, illicit dumping into stormdrains, and other sources of pollution. Carry out long-term maintenance and mapping of all stormwater infrastructure.
- 4 Ensure that construction on both public and private property do not pollute runoff with sediments and debris.
- 5 Ensure that new development and redevelopment control and treat runoff before it leaves private property.
- 6 Engage in municipal roadway best practices such as cleaning drainage systems, sweeping streets, and ensuring municipal activities do not contribute to stormwater pollution.

In addition to these minimum steps, Kittery is also required to protect and restore polluted waterbodies within the town.



Consequences for failure to comply with the MS4 General Permit

Enforcement Action

- Notice of Violation, fines or other penalties
- Consent Order
- Prosecution

Permit Termination or Revocation

- Permit modification
- Stricter permit limits
- Denial of permit renewal

...and most importantly—jeopardized Public Health & Safety

To meet these requirements, Kittery must adopt increased stormwater standards applicable to:

- New development, redevelopment, and construction;
- Long-term maintenance and inspection of stormwater infrastructure;
- Preventing pollution from all municipal operations and facilities;
- Improving polluted waterbodies within the municipality, with priority given to Spruce Creek; and
- Raising awareness of stormwater, specifically the appropriate practices that should be used, inspected, and maintained on a regular basis to reduce polluted runoff.

SPRUCE CREEK MANAGEMENT PLAN

The Spruce Creek Association and the Towns of Kittery and Eliot developed a watershed based management plan for Spruce Creek in 2008, and updated the plan in 2014. This plan serves as a blueprint for restoring and protecting the estuary with established goals, objectives and actions for resolving the most pressing problems identified and includes strategies for monitoring progress and financing implementation.



How is Kittery meeting these Clean Water Act requirements?

The Town of Kittery is working hard to comply with stormwater permit requirements. Responsibilities of departments within Kittery are summarized below.

Public Works

Primary Point of Contact: Jessa Kellogg, Stormwater Coordinator

- Oversees inspection and maintenance of municipal stormwater infrastructure.
- Oversees creation and updating of stormwater infrastructure maps.
- Coordinates implementation of Kittery's Stormwater Management Plan through coordination with all municipal departments and serves as the stormwater program point of contact (POC) with DEP.
- Identifies possible pollution sources within the community and works to eliminate these sources.
- Ensures staff are trained in proper procedures for minimizing pollution, including but not limited to: chemical storage, spill prevention and clean up, and use of erosion control measures.
- Works with Planning and Third-Party reviewers to ensure site plan proposals contain appropriate erosion and sediment control plans, stormwater designs that appropriately collect and treat stormwater, and post construction monitoring plans.
- Requires that a Third-Party inspector review construction activities for compliance with the plans that were submitted and approved.
- Through technical review and permitting follow-up, ensures stormwater systems are maintained and functioning after construction is complete.
- Enforces the non-stormwater discharge ordinance when necessary.
- Conducts opportunistic and regularly scheduled inspections of outfalls and ditches to assess for illicit discharges and maintenance needs.

The Southern Maine Stormwater Working Group (SMSWG) is comprised of five MS4 communities in York County, including: Kittery, York, Eliot, South Berwick and Berwick. SMSWG is coordinated by Integrated Environmental Engineering and works cooperatively to meet the MS4 General Permit requirements.

Public Works Staff

- Follow pollution prevention measures at the in-town parks, public works garage and transfer station to ensure that municipal operations at these facilities do not pollute nearby water resources.
- Use proper erosion and sedimentation control measures during construction and maintenance.
- Conduct opportunistic and regularly scheduled inspections of catch basins to assess for illicit discharges and maintenance needs.

Planning

Primary Point of Contact: Jamie Steffen, Town Planner

- Ensures site plans contain all proper submittals including erosion and sedimentation control plans and stormwater management plans where required.
- Informs developers or applicants of construction and post-construction requirements when applicable.
- Informs developers of the benefits of using Low Impact Development, which minimizes environmental impact from development.

Code Enforcement

Primary Point of Contact: Stephen Wilson, Code Enforcement Officer

- Inspects small-scale (e.g. single family homes) construction projects (on both public and private property) to ensure proper erosion and sedimentation control practices are being used and pollutants are not entering the Town's MS4.
- Identifies possible pollution sources within the community and notifies the Stormwater Coordinator.
- Informs developers or applicants of construction and post-construction requirements when applicable.

Public Safety

Primary Points of Contact: Robert Richter, Police Chief and David O'Brien, Fire Chief

- Follows operation and maintenance plans for their facilities to ensure activities do not pollute water resources.
- Identifies possible pollution sources within the community and notifies the Stormwater Coordinator.
- Ensures staff are trained for minimizing pollution, including: chemical storage and spill prevention and clean-up.