HAMPDEN STORMWATER PROGRAM

Stormwater Management Program Meeting
June 20, 2019

Tracy J. Adamski, Tighe & Bond

PURPOSE OF THIS MEETING

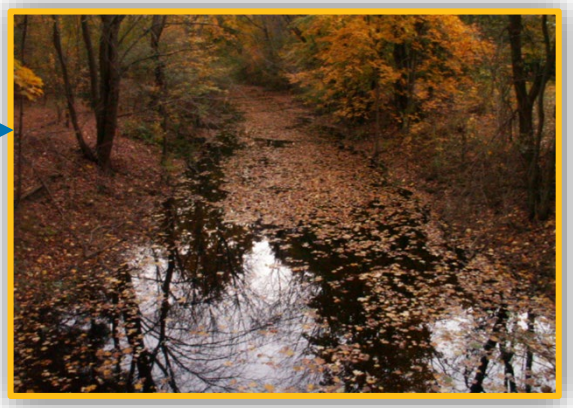
- Provide an update on Hampden's ongoing stormwater management program
- Discuss the Town's Notice of Intent (NOI) and Stormwater Management Plan (SWMP)
- Solicit feedback on stormwater program

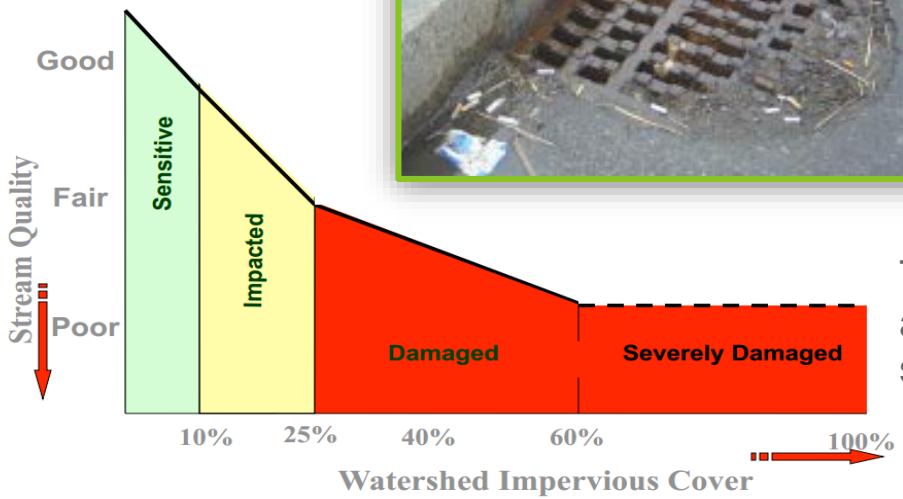
WHAT IS STORMWATER?

Rainwater that falls on paved streets, lawns, parking lots, and sidewalks becomes polluted stormwater. The more impervious surface, the more stormwater runoff and impact to receiving waterbodies.

Runoff Discharges to Nearby Waters

40% of known pollution to the nation's waters is caused by stormwater



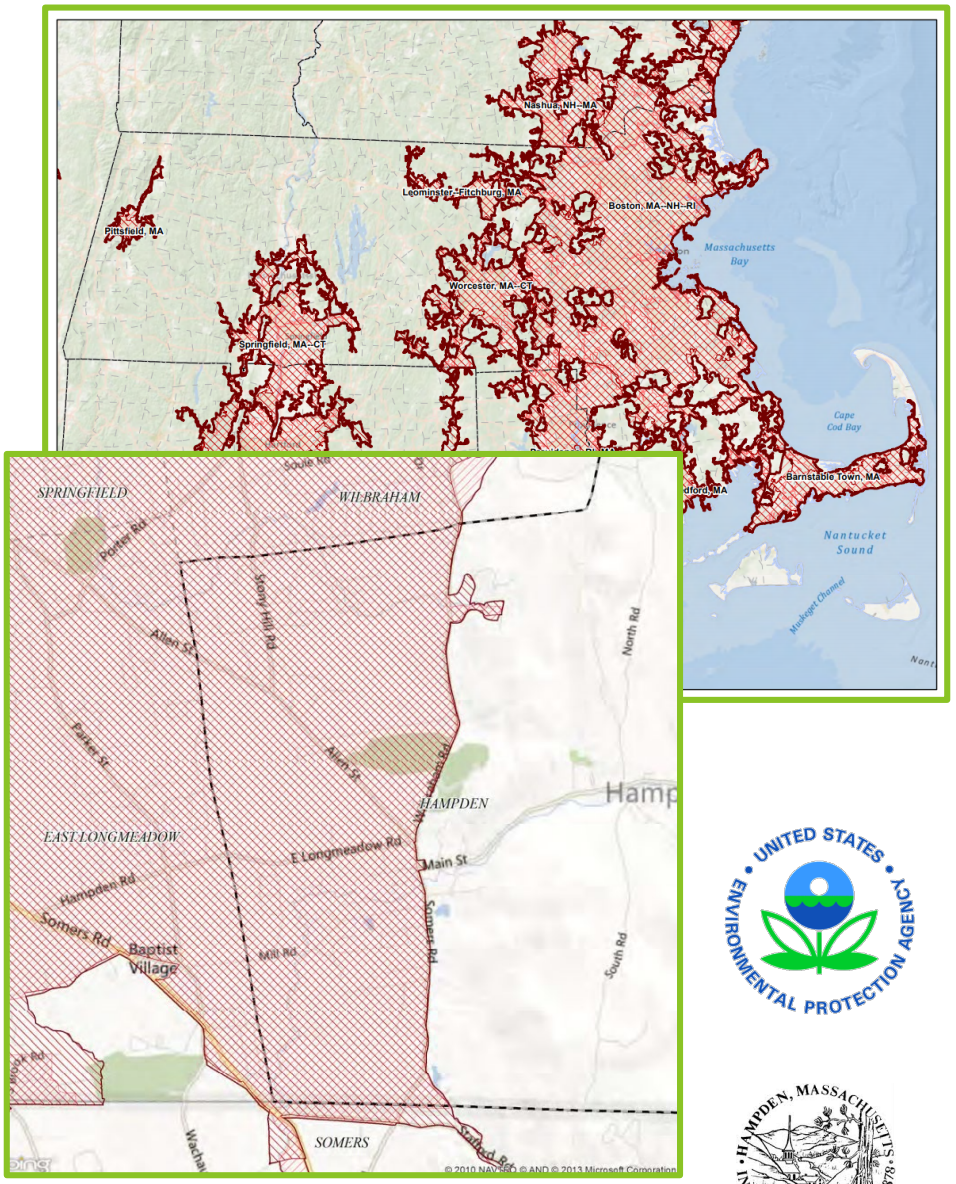


Typical pollutants in stormwater are trash, oil, fertilizers, sediment, sand, and bacteria.

Impervious Cover Model Source: Center for Watershed Protection

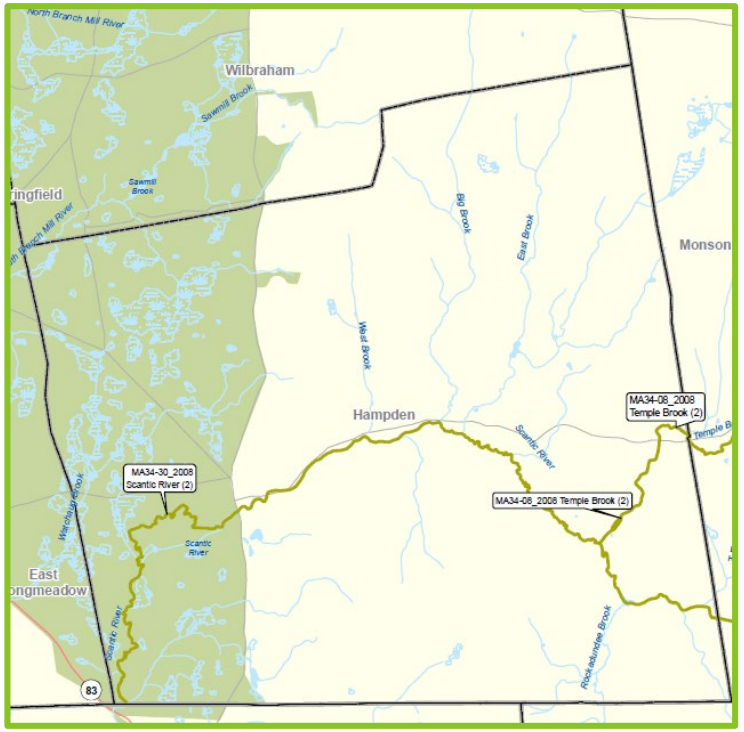
EPA'S SMALL MS4 STORMWATER PROGRAM

- **MS4 = Municipal Separate Storm Sewer System**
- **Jointly administered by EPA and MassDEP**
- **260 municipalities authorized**
- **Hampden's MS4 area includes all drainage within the "urbanized area"**



EPA'S SMALL MS4 STORMWATER PROGRAM

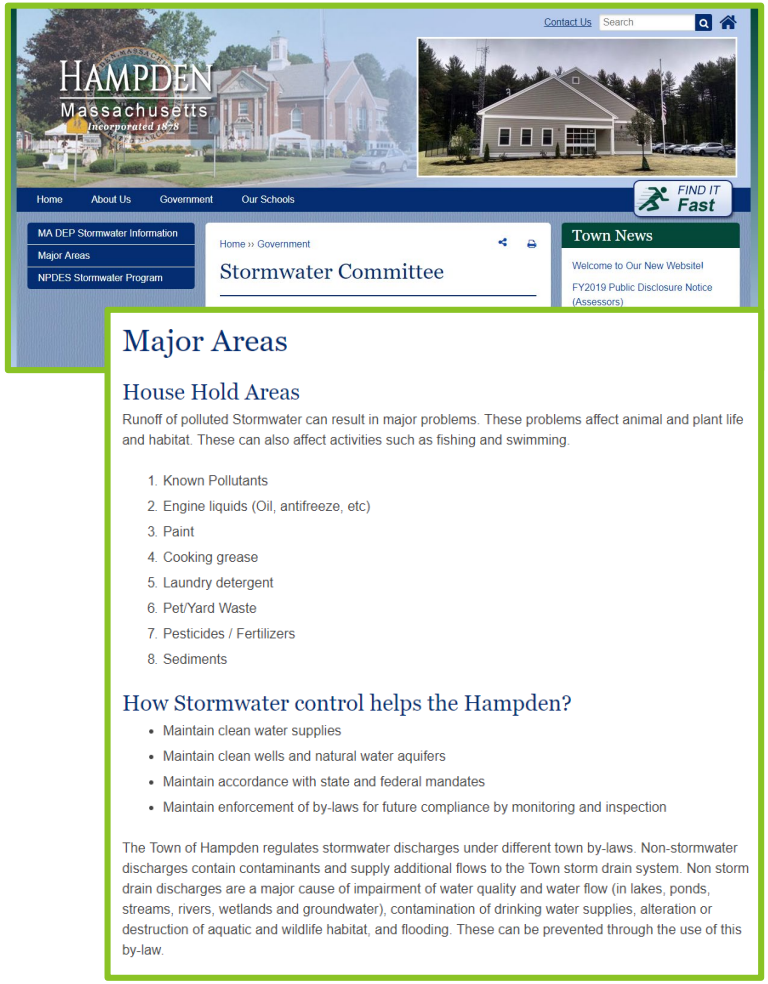
- **Minimum Control Measures (MCMs):**
  1. Public Education and Outreach
  2. Public Involvement and Participation
  3. Illicit Discharge Detection and Elimination (IDDE) Program
  4. Construction Site Stormwater Runoff Control
  5. Stormwater Management in New Development and Redevelopment
  6. Good Housekeeping and Pollution Prevention



- **Total Maximum Daily Loads (TMDLs) and Impaired Waterbody Requirements**

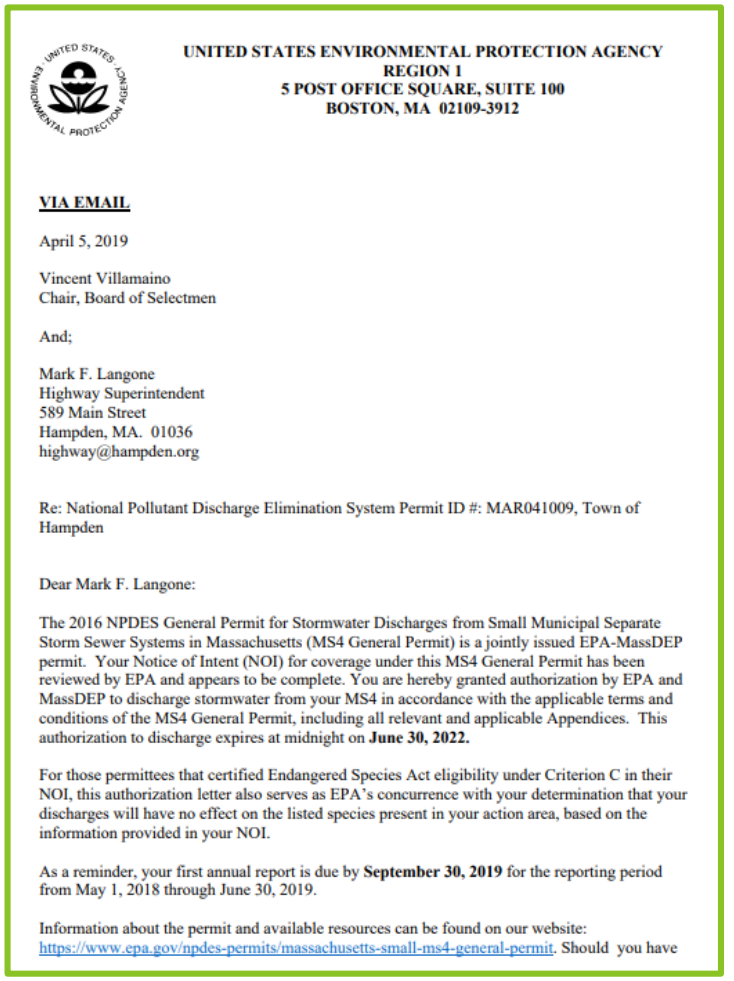
HAMPDEN'S STORMWATER PROGRAM

- **Educational materials**
  - Town website
  - At municipal buildings
- **Public participation**
  - Adopt-a-Road program
  - Stormwater Committee
- **Stormwater outfall mapping**
  - All known stormwater outfalls in the urbanized area are mapped
- **Stormwater By-Laws**
  - Chapter XIV(A) Erosion and Sediment Control for Stormwater Management
  - Chapter XIV Stormwater Management



NOTICE OF INTENT (NOI)

- **NOI to discharge stormwater under the 2016 MA Small MS4 General Permit submitted to EPA and MassDEP on September 28, 2018**
  - Presents Hampden's strategy for meeting Permit requirements
  - Endangered Species & Historic Properties Eligibility
  - Regulatory authorities (by-laws and regulations)
  - 6 MCMs & TMDL requirements
- **Authorization letter received on April 5, 2019**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

VIA EMAIL

April 5, 2019

Vincent Villamaino
Chair, Board of Selectmen

And;

Mark F. Langone
Highway Superintendent
589 Main Street
Hampden, MA. 01036
highway@hampden.org

Re: National Pollutant Discharge Elimination System Permit ID #: MAR041009, Town of Hampden

Dear Mark F. Langone:

The 2016 NPDES General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems in Massachusetts (MS4 General Permit) is a jointly issued EPA-MassDEP permit. Your Notice of Intent (NOI) for coverage under this MS4 General Permit has been reviewed by EPA and appears to be complete. You are hereby granted authorization by EPA and MassDEP to discharge stormwater from your MS4 in accordance with the applicable terms and conditions of the MS4 General Permit, including all relevant and applicable Appendices. This authorization to discharge expires at midnight on **June 30, 2022.**

For those permittees that certified Endangered Species Act eligibility under Criterion C in their NOI, this authorization letter also serves as EPA's concurrence with your determination that your discharges will have no effect on the listed species present in your action area, based on the information provided in your NOI.

As a reminder, your first annual report is due by **September 30, 2019** for the reporting period from May 1, 2018 through June 30, 2019.

Information about the permit and available resources can be found on our website: https://www.epa.gov/npdes-permits/massachusetts-small-ms4-general-permit. Should you have

STORMWATER MANAGEMENT PLAN (SWMP)

- **Written SWMP must be finalized by July 1, 2019**
- **SWMP contents:**
  - Regulatory background and summary of Town's existing program
  - Watershed resources and water quality in Hampden
  - Best Management Practices (BMPs) to address the 6 MCMs
  - BMPs to address water quality issues
  - Record keeping and reporting

1.10.2. Contents and Timelines of the Stormwater Management Program for 2003 permittees

The following information must be included in the SWMP within one (1) year of the permit effective date and updated annually thereafter, as necessary:

- Identification of names and titles of people responsible for program implementation. If a position is currently unfilled, list the title of the position and modify the SWMP with the name once the position is filled;
- Documentation of compliance with part 1.9.1;
- Documentation of compliance with part 1.9.2;

MA MS4 General Permit

- Documentation of authorization of all new or increased discharges granted by MassDEP in compliance with part 2.1.2;
- Listing of all discharges identified pursuant to part 2.1.1 and description of response;
- Description of practices to achieve compliance with part 2.3 (MEP requirements) identified in the permittee's NOI and any updates to those BMPs within the first year;
  For each permit condition in part 2.3 identify:
  - The person(s) or department responsible for the measure;
  - The BMPs for the control measure or permit requirement;
  - The measurable goal(s) for each BMP. Each measurable goal shall include milestones and timeframes for its implementation and have a quantity or quality associated with its endpoint. Each goal shall have a measure of assessment associated with it;
- Sanitary Sewer Overflow (SSO) inventory including all of the information required in part 2.3.4.4.b;
- Written IDDE Program pursuant to part 2.3.4.6;
- Written procedures for site inspections and enforcement of sediment and erosion control procedures in accordance with part 2.3.5;
- Description of measures to avoid or minimize impacts to surface public drinking water supply sources. The permittee is also encouraged to include provisions to notify public water supplies in the event of an emergency. Massachusetts Department of Environmental Protection, Bureau of Resource Protection, Drinking Water Program, One Winter Street, Boston, MA 02108 – phone 617.292.5770.
- Description of activities to achieve compliance with part 3.0;
- Annual program evaluation (part 4.1). Update annually and maintain copies.

MCM1 – PUBLIC EDUCATION AND OUTREACH

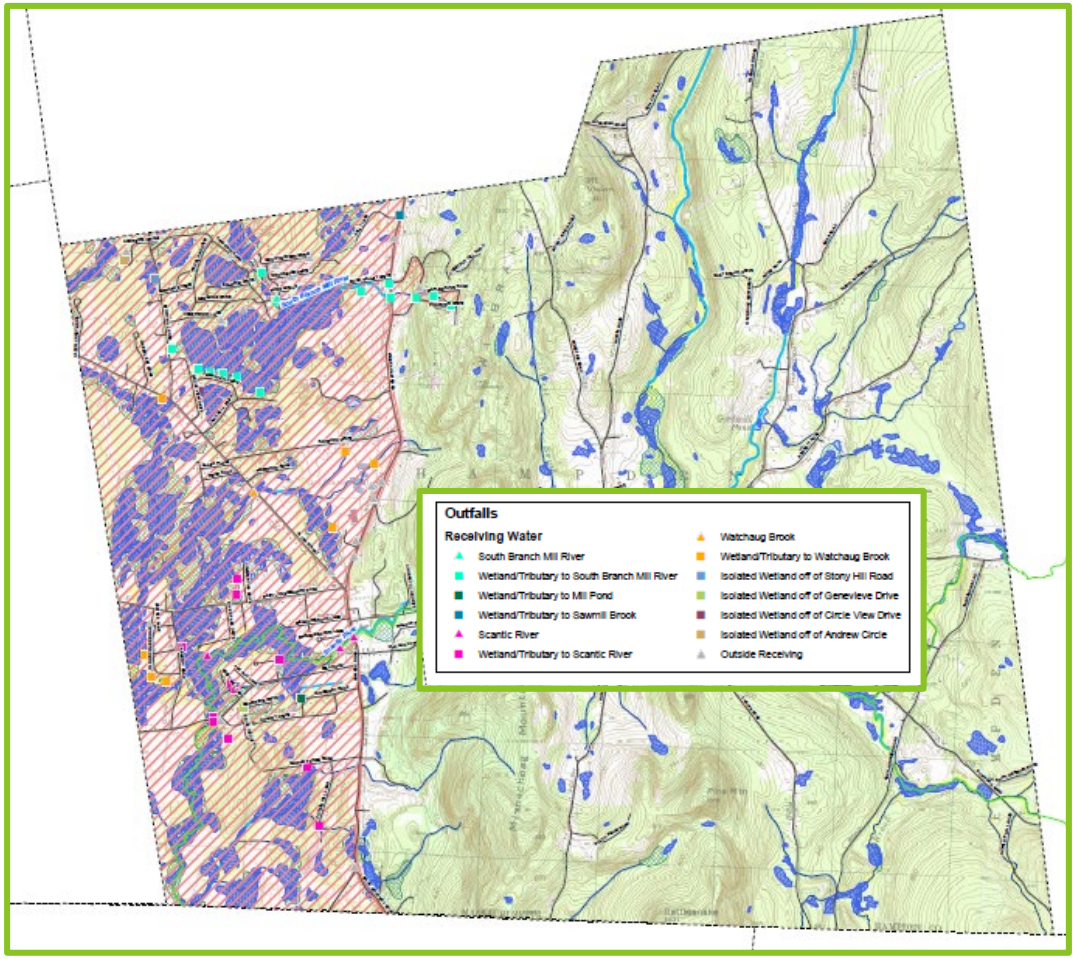
- **Annual messages to residents and businesses, institutions, and commercial facilities**
  - Spring: disposal of grass clippings, use of slow-release fertilizers
  - Summer: pet waste management
  - Fall: proper disposal of leaf litter
- **Two messages over permit term to developers (construction) and industrial facilities**
  - Proper erosion and sediment control
  - Town stormwater permit requirements
  - EPA CGP and MSGP program

MCM2 – PUBLIC INVOLVEMENT AND PARTICIPATION

- **Final NOI was published on EPA's MS4 website for public comment on April 1, 2019: https://www3.epa.gov/region1/npdes/stormwater/ma/tms4noi/hampden.pdf**
- **Draft SWMP is available to the public at the Highway Department office**

MCM3 – IDDE PROGRAM

- Updates to storm sewer system map
- Written IDDE program



MCM3 – IDDE PROGRAM

- Outfall/interconnection inventory and ranking
- Catchment delineation and investigation
- Dry and wet weather outfall sampling

MCM4&5 – STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

- **Modify existing stormwater by-law**
- **Regulatory assessment – Low Impact Development**

CHAPTER XIV STORMWATER MANAGEMENT
(Approved April 25, 2005)

1. PURPOSE

The purpose of this chapter is to eliminate non-stormwater discharges to the Town of Hampden's Municipal Storm Drain System. Non-stormwater discharges contain contaminants and supply additional flows to the Town of Hampden's Storm Drain System. Non-stormwater discharges are major causes of:

a. impairment of water quality and flow in lakes, ponds, streams, rivers, wetlands, and groundwater;
b. contamination of drinking water supplies;
c. alteration or destruction of aquatic and wildlife habitat; and
d. flooding.

Regulation of illicit connections and discharges to the storm drain system is necessary for the protection of the Town of Hampden's, natural resources, municipal facilities, general health, safety, welfare, and the environment. The objectives of this section are:

a. to prevent pollutants from entering the storm drain;
b. to prohibit illicit connections and unauthorized discharges to the storm drain
c. to remove all such illicit connections;
d. to comply with state and federal statutes and regulations relating to stormwater discharges; and
e. to establish the legal authority to ensure compliance with the provisions of this section through inspection, monitoring, and enforcement.

2. DEFINITIONS

These definitions and provisions shall apply to the "Discharges to the Municipal Drain System" By-Law.

MCM4&5 – STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

- **Municipal stormwater retrofit inventory**

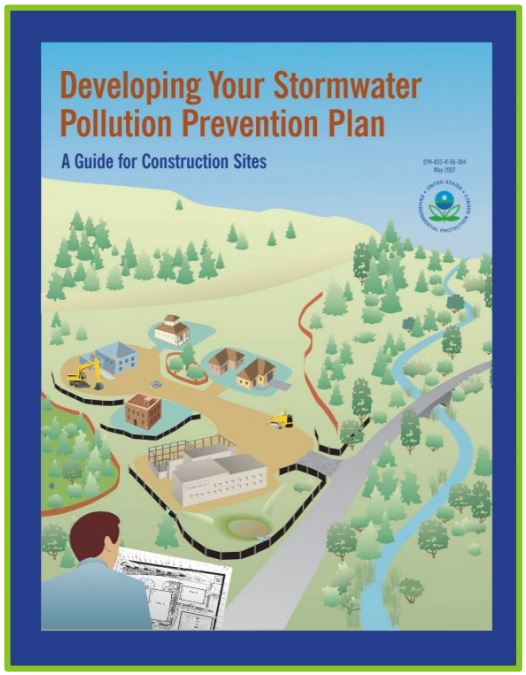
- **Regulatory assessment – green infrastructure**

MCM6 – GOOD HOUSEKEEPING

- **Municipal Facilities O&M Program**
  - Buildings and facilities
  - Parks and open space
  - Equipment and vehicles
- **MS4 Infrastructure O&M Procedures**
  - Catch basin cleaning
  - Street sweeping
- **Stormwater BMP O&M Procedures**
  - Water quality swales
  - Retention/detention basins
  - Infiltration structures
  - Proprietary treatment devices

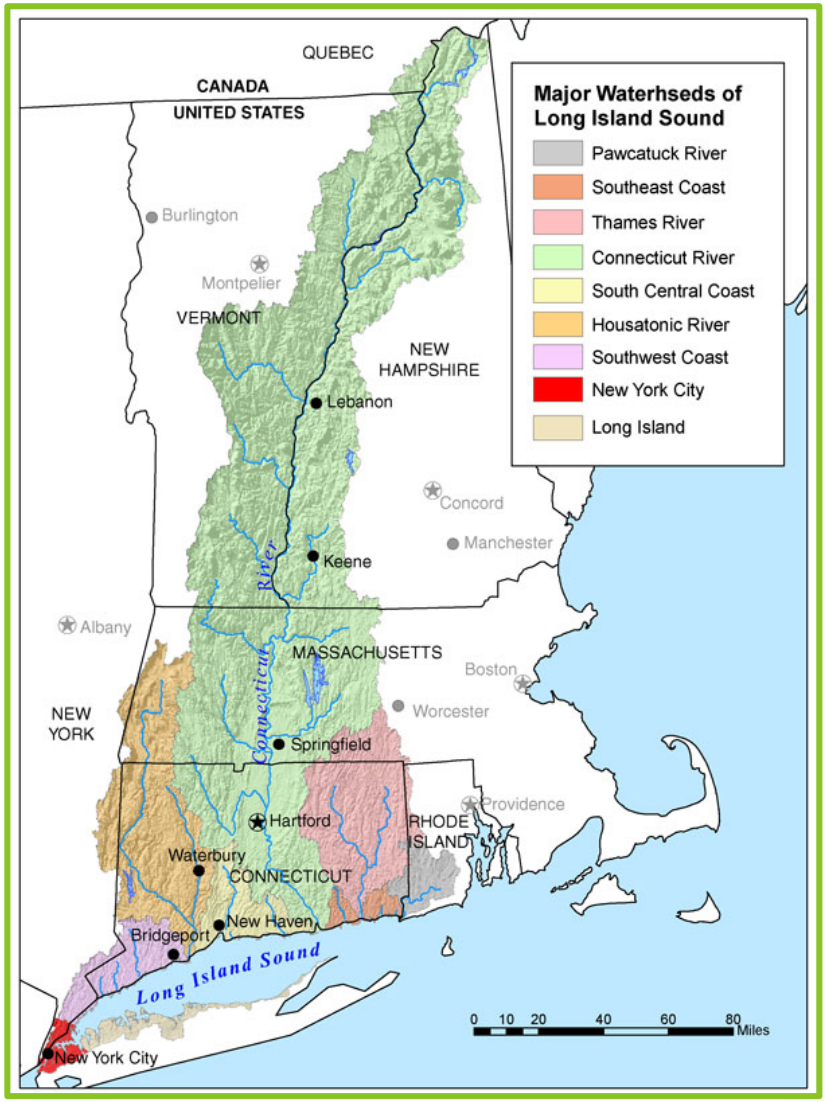
MCM6 – GOOD HOUSEKEEPING

- **Winter Road Maintenance**
  - Procedures for use and storage of salt and sand
  - Minimize use of salts
- **SWPPPs**
  - Prepare and implement SWPPP for Highway Department Facility



WQ/TMDL – LONG ISLAND SOUND NITROGEN TMDL

- **Supplemental BMPs**
  - Public education and outreach messages
  - Amend stormwater by-law to optimize nitrogen removal
  - Use of slow-release fertilizers on Town-owned property
  - Street sweeping twice annually
  - Nitrogen Source Identification Report
  - Evaluate installation of nitrogen-reduction structural BMP on Town-owned property



WQ/TMDL – SCANTIC RIVER *E. COLI* IMPAIRMENT

- **Impaired waters based on 2014 Integrated List, no impaired waters in Hampden identified**
- **Draft 2016 Integrated List adds Scantic River as water impaired by *E. Coli* & requiring a TMDL**

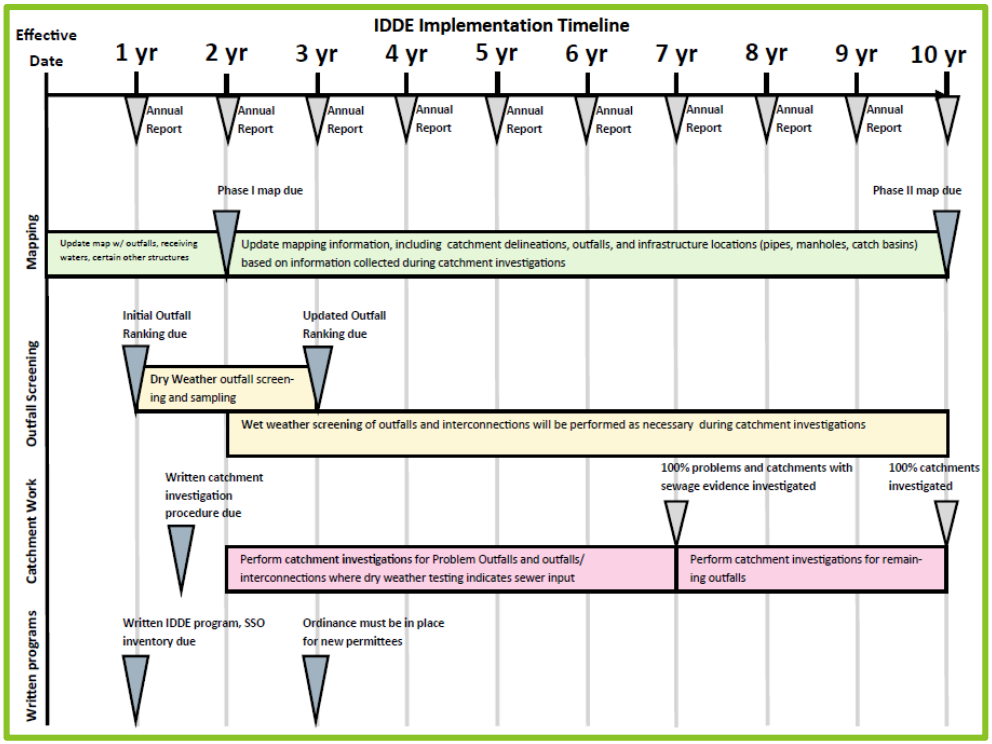
Category 5 waters listed alphabetically by major watershed
The 303(d) List – "Waters requiring a TMDL"

WATER BODY	SEGMENT ID	DESCRIPTION	SIZE	UNITS	IMPAIRMENT	EPA TMDL NO.
Longmeadow Brook	MA34-21	Headwaters, outlet Turner Park Pond, Longmeadow to mouth at confluence with Connecticut River, Longmeadow.	4.5	MILES	(Debris/Floatables/Trash*)	
					Escherichia coli	
					Phosphorus (Total)	
					Turbidity	
Manhan River	MA34-11	Outlet Tighe Carmody Reservoir, Southampton to mouth at confluence with Connecticut River, Easthampton.	18.9	MILES	Escherichia coli	
Metacomet Lake	MA34051	Belchertown.	51	ACRES	(Non-Native Aquatic Plants*)	
					Oxygen, Dissolved	
Mill Pond	MA34052	Springfield.	13	ACRES	Nutrient/Eutrophication Biological Indicators	
					Taste and Odor	
Mill River	MA34-25	Headwaters, outlet Factory Hollow Pond, Amherst to mouth at inlet Lake Warner, Hadley.	5.2	MILES	Escherichia coli	
Mill River	MA34-29	Headwaters, outlet Watershops Pond, Springfield to mouth at confluence with Connecticut River, Springfield. (Interrupted stream).	1.3	MILES	(Debris/Floatables/Trash*)	
					Escherichia coli	
					Taste and Odor	
Nashawannuck Pond	MA34057	Easthampton.	30	ACRES	(Non-Native Aquatic Plants*)	
					Nutrient/Eutrophication Biological Indicators	
					Phosphorus (Total)	
Noonan Cove	MA34058	Springfield.	3	ACRES	Aquatic Plants (Macrophytes)	
					Turbidity	
Oxbow	MA34066	The water body west of Route 91 (bounded on the northeast by Route 91, the southeast by the Manhan River, and the west by Old Springfield Road), Northampton/Easthampton (excluding the delineated segment; Danks Pond MA34019).	149	ACRES	(Non-Native Aquatic Plants*)	
					Turbidity	
Porter Lake	MA34073	Springfield.	28	ACRES	(Non-Native Aquatic Plants*)	
					Aquatic Plants (Macrophytes)	
					Excess Algal Growth	
Porter Lake West	MA34072	Springfield.	5	ACRES	(Non-Native Aquatic Plants*)	
					Aquatic Plants (Macrophytes)	
					Excess Algal Growth	
Scantic River	MA34-30	Massachusetts/Connecticut border, Monson downstream to the Massachusetts/Connecticut border, Hampden.	9.6	MILES	Escherichia coli	
Stony Brook	MA34-19	Headwaters, Granby to mouth at confluence with Connecticut River, South Hadley (thru Upper Pond formerly segment MA34094 and Lower Pond formerly segment MA34049).				
					Turbidity	
Unnamed Tributary	MA34-60	Unnamed tributary to the Connecticut River, locally known as 'Willamanett Brook', headwaters, perennial portion, east of Memorial Drive (Route 33), Chicopee to mouth at confluence with Connecticut River, Chicopee (approximatley 1200 feet culverted near mouth).	2.3	MILES	Escherichia coli	

Listed as Category 2 Water in Massachusetts Year 2014 Integrated List of Waters

SUMMARY

- Hampden is actively meeting MS4 requirements
- MS4 GP is a 5 year permit
- Compliance extends 10 years out



QUESTIONS AND DISCUSSION