


## HAMPDEN STORMWATER PROGRAM UPDATE

**Stormwater Committee Meeting  
September 17, 2020**

Emily Tully, Tighe & Bond



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## PURPOSE OF THIS MEETING

- **Provide an update on Hampden's ongoing stormwater management program**
  - Activities completed in Year 2
  - Activities planned for Year 3
- **Solicit feedback on stormwater program**

**Year 2 Annual Report**  
Massachusetts Small MS4 General Permit  
Reporting Period: July 1, 2019-June 30, 2020

*\*\*\*Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form.\*\*\**


*Unless otherwise noted, all fields are required to be filled out. If a field is left blank, it will be assumed the 30, 30, 30 miles otherwise requested. Please CUEP report on activities between July 1, 2019 and June 30, 2020.*

**Part I: Contact Information**

Name of Municipality or Organization: Town of Hampden  
EPA NPDES Permit Number: MA042009

Primary MS4 Program Manager Contact Information  
Name: Mark Lagasse Title: Highway Department Superintendent  
Street Address Line 1: 589 Main Street  
Street Address Line 2:  
City: Hampden State: MA Zip Code: 01034  
Email: Highway@hampden.gov Phone Number: (413) 564-8942

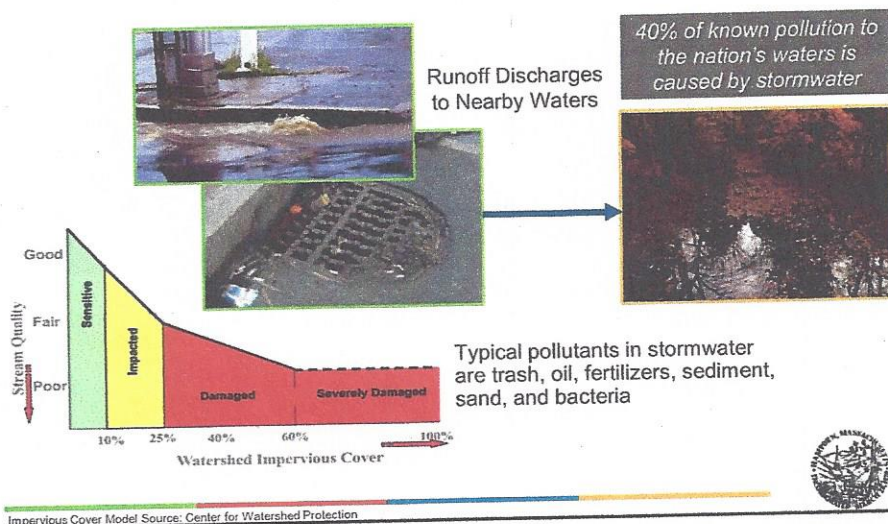
Stormwater Management Program (SWMP) Information  
SWMP Location (web address): <https://www.hampden.gov/stormwater-committee> (SWMP is on the left side of the page)  
Date SWMP was Last Updated: Jun 30, 2020  
If the SWMP is not available on the web please provide the physical address:  
SWMP is provided online as described above and is also available at the Highway Dept office at 589 Main Street in Hampden, MA.



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## WHAT IS STORMWATER?

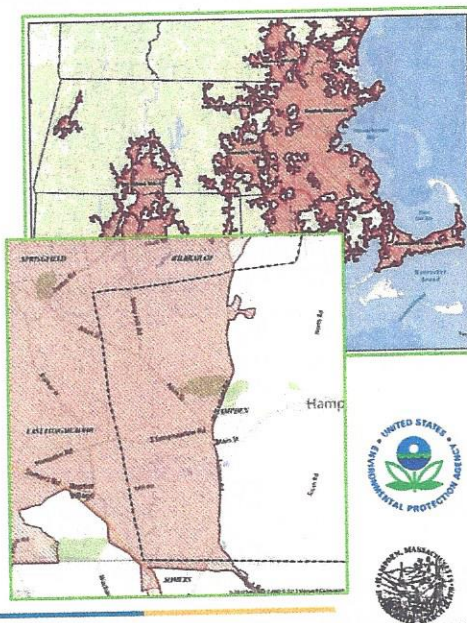
Rainwater that falls on paved streets, lawns, parking lots, and sidewalks becomes polluted stormwater



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## EPA'S SMALL MS4 STORMWATER PROGRAM

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

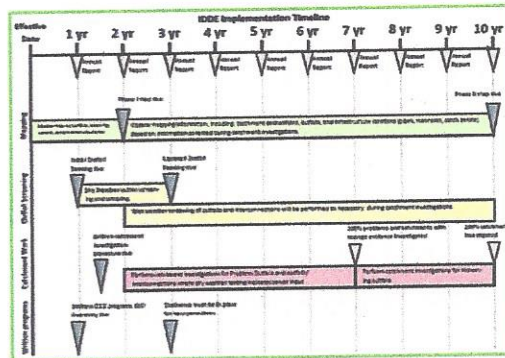


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## EPA'S SMALL MS4 STORMWATER PROGRAM

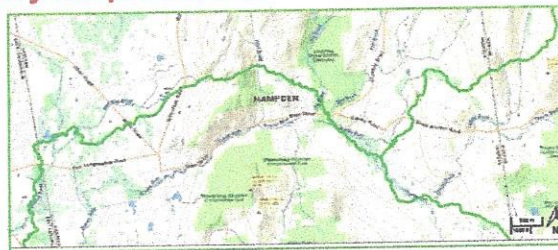
- **Notice of Intent (NOI) under the 2016 Small MS4 General Permit submitted September 28, 2018**
- **Authorization to discharge stormwater received April 5, 2019**
- **Stormwater Management Plan (SWMP) finalized July 1, 2019, updated June 30, 2020**



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## HAMPDEN'S STORMWATER PROGRAM (SWMP)

- **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**



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## HAMPDEN'S SWMP: PERMIT YEAR 2 IN REVIEW

### • MCM 1: Public Education and Outreach

- Annual messages to residents, businesses, institutions, and commercial facilities

### • MCM 2: Public Involvement and Participation

- SWMP available online and at Highway Garage for public review
- Stormwater Committee meetings
- Other activities postponed due to COVID-19

<https://www.hampdenma.gov/stormwater-committee/links/town-hampden-stormwater-management-plan>

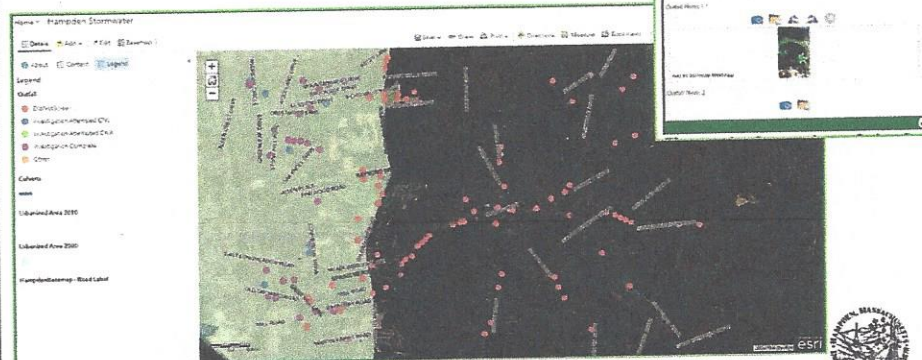


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## HAMPDEN'S SWMP: PERMIT YEAR 2 IN REVIEW

### • MCM 3: IDDE Program

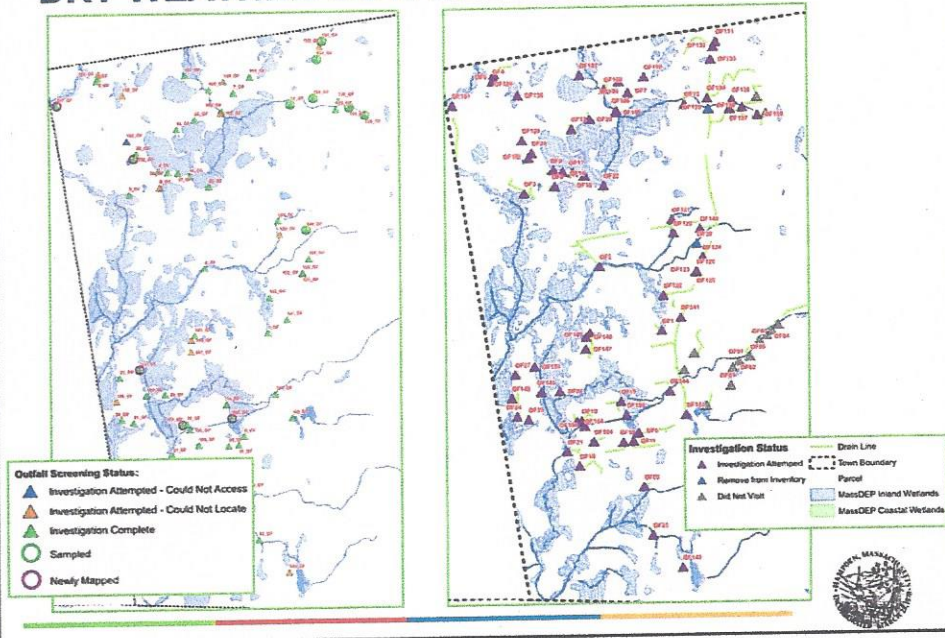
- Written catchment investigation procedures
- Outfall screening and dry weather sampling
- Outfall inventory and stormwater map updates



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## DRY WEATHER OUTFALL SCREENING



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## DRY WEATHER OUTFALL SCREENING

Location						Laboratory Analysis <sup>(1)</sup>				Water Quality Meter/Test Kit <sup>(2)</sup>				
Date	OLD Outfall ID	Outfall ID	ROI Receiving Water	Street	Sample Location	E. coli	Ammonia	Total Nitrogen	Surfactants	Temperature	Salinity	Conductivity	Chlorine	Ammonia
11/5/2019	OF-5	132 OF	Tributary to South Branch Mill River	Echo Valley Drive	Outfall	330	0.139	2.2	ND	53.4	-	40.3	0.18	0.25
11/5/2019	OF-1	133 OF	Tributary to South Branch Mill River?	Wilbraham Road	Upstream Catch Basin	2	ND	0.60	ND	48.9	0.03	40.3	0.18	0.00
11/5/2019	OF-2	133 OF	Tributary to South Branch Mill River?	Wilbraham Road	Outfall	10	ND	0.60	ND	57.0	0.08	131.4	0.05	0.00
11/5/2019	OF-8	138 OF	Tributary to South Branch Mill River?	Haplegrove Road	Outfall	8.0	0.391	1.1	ND	55.6	0.30	770.0	0.00	0.25
11/5/2019	OF-7	130 OF	Tributary to South Branch Mill River?	Pondview Drive	Outfall	8.0	ND	2.2	0.050	52.3	0.07	109.3	0.13	0.25
11/7/2019		140 OF	Watohaus Brook?	Wilbraham Road	Upstream Catch Basin	110.0	ND	0.77	0.050	45.9	0.07	155.5	-	0.00
11/7/2019	OF-3	134 OF	Tributary to South Branch Mill River	Wilbraham Road	Outfall	3.0	0.161	4.9	ND	53.2	0.32	646.6	-	0.25

**REPORTING LIMITS:**  
 Ammonia = 0.075 mg/L  
 Surfactants = 0.050 mg/L  
 E. coli = 2 CFU/100mL  
 Total Nitrogen = 2 CFU/100mL  
 Total Phosphorus = 0.01 mg/L  
 ND = none detected

**Notes for Results Summary:**  
 (1) "-" means no analysis was completed  
 (2) uS/cm is equivalent to gms/cm

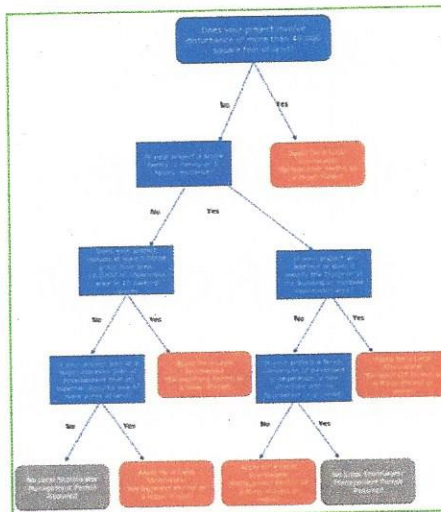
**BENCHMARK SOURCES:**  
 Ammonia, Surfactants, and Chlorine - EPA General Permit for Stormwater Discharges from Small MS4 in Massachusetts  
 E. coli, Temperature, and Dissolved Oxygen - 324 CMR 4.00: Massachusetts Surface Water Quality Standards  
 Total Nitrogen - EPA Ambient Water Quality Criteria Recommendations for Rivers and Streams in Nutrient Ecoregion XIV  
 Salinity - EPA Volunteer Estuary Monitoring: A Methods Manual  
 Conductivity - Center for Watershed Protection (CWP) discharge Detection and Elimination Guidance Manual

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## HAMPDEN'S SWMP: PERMIT YEAR 2 IN REVIEW

### • MCMs 4 & 5: Construction Site and Post-Construction Stormwater Management

- Stormwater bylaw revisions to meet additional requirements of 2016 Small MS4 General Permit
- Stormwater permit application form revisions
- Site inspection forms
- Permitting flow chart



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## HAMPDEN'S SWMP: PERMIT YEAR 2 IN REVIEW

### • MCM 6: Good Housekeeping and Pollution Prevention for Permittee Owned Operations

- Inventory of municipally owned buildings, facilities, parks, and open space, vehicles and equipment
- Written Operations and Maintenance (O&M) program for municipal facilities and activities
- Stormwater Pollution Prevention Plans (SWPPPs) for Highway Garage and Transfer Station



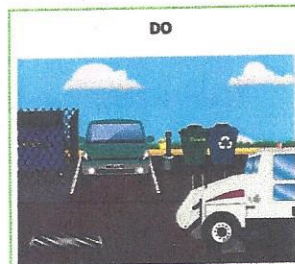
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## HAMPDEN'S SWMP: PERMIT YEAR 3

- **MCM 1: Public Education and Outreach**

- Continue with annual messages
- Develop messages for developers and industrial facilities



- **MCM 2: Public Involvement and Participation**

- Continue to make SWMP available for public review and comment
- Consider other, safe ways to involve public in stormwater program



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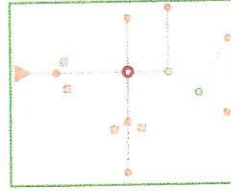
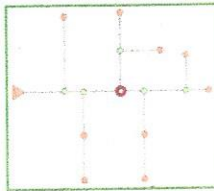
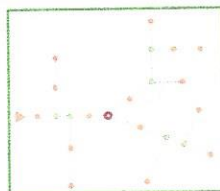
## HAMPDEN'S SWMP: PERMIT YEAR 3

- **MCM 3: IDDE Program**

- Update priority ranking of outfalls based on results of dry weather screening and new impairment designation of Scantic River

Category 5 waters listed alphabetically by major watershed The 303(d) List – "Waters requiring a TMDL"					
Water Body	Segment ID	Description	Size	Units	Impairment
Scantic River	MA34-30	Massachusetts/Connecticut border, Monson downstream to the Massachusetts/Connecticut border, Hampden	0.60	Miles	Escherichia Coli (E. Coli)

- Start catchment investigations
  - Identify key junction manholes
  - Perform dry weather screening at up to 70 key junction manholes



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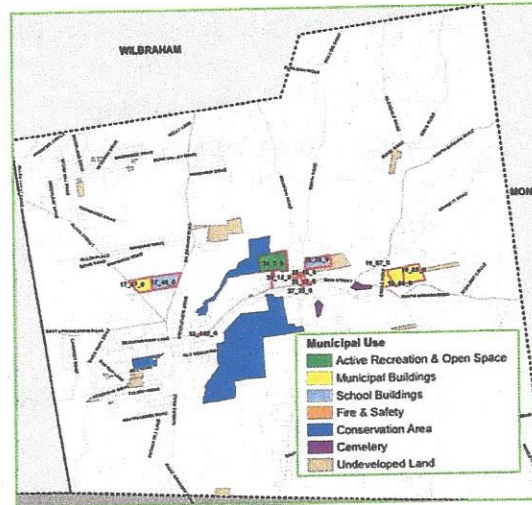
## HAMPDEN'S SWMP: PERMIT YEAR 3

- **MCM 4: Construction Site Stormwater Runoff Control**

- Continue tracking site plan reviews and inspections

- **MCM 5: Post-Construction Stormwater Management**

- Municipal stormwater retrofit inventory

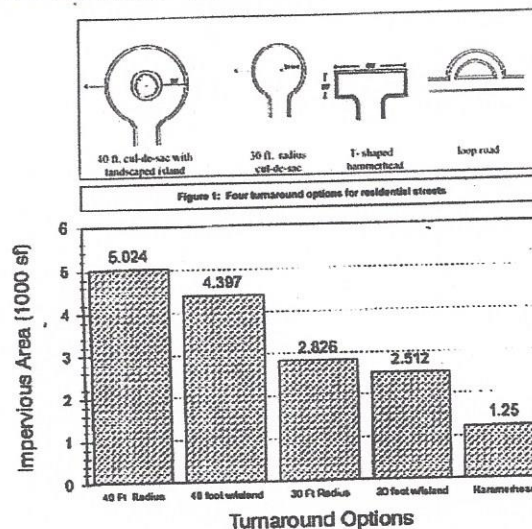


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## HAMPDEN'S SWMP: PERMIT YEAR 3

- **MCM 5: Post-Construction Stormwater Management**

- Regulatory assessment – impervious cover creation
- Regulatory assessment – green infrastructure



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## HAMPDEN'S SWMP: PERMIT YEAR 3

- **MCM 6: Good Housekeeping and Pollution Prevention for Permittee-Owned Operations**

- Quarterly SWPPP inspections at Highway Garage and Transfer Station
- Implementation of Good Housekeeping SOPs
- Annual requirements and record keeping



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## SUMMARY OF HAMPDEN'S SWMP

- **Hampden is actively meeting MS4 requirements**
- **Annual Report due September 28, 2020**
- **Bylaw revisions need to be adopted by end of PY 3**
- **Revisions to the 2016 Small MS4 General Permit to become effective soon**



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## LOOKING AHEAD AT FUTURE REQUIREMENTS



**Annual reporting and tracking requirements**



**PY 4:** implement recommendations from planning reports, develop Nitrogen Source Identification Report



**PY 5:** plan and schedule for retrofit structural BMPs for Nitrogen removal



**Longer term:** install one demonstration BMP by PY 6, complete Phase II map and catchment investigations by PY 10



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## QUESTIONS AND DISCUSSION



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