

*The Town of*  

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**SHELburnE**  
*Vermont*

**Stormwater Summit**

September 22, 2016

**Presentation by:**

Tom DiPietro, Deputy Director of Public Works, City of South Burlington

Chris Robinson, Water Quality Superintendent, Town of Shelburne

# How is Stormwater Regulated?



- Federal Regulations (NPDES)
  - Construction Permit
  - Multi Sector General Permit
  - Municipal Separate Storm Sewer (MS4) Permit
- State Regulations
  - Stormwater Permit (3-9015 Operational Permit, 3-9010, RDA)
  - 3 Acre Permit (New in 2018)
  - Municipal Roads Permit (New in 2017)
- Local Regulations



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# Questions

1. What stormwater responsibilities / requirements does Shelburne have?
2. How is Shelburne meeting these requirements?



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# State Stormwater Permit Requirements

- There are 67 State stormwater permits issued in Shelburne\*.
  - The Town is listed as a permittee on 12 permits.
  - 14 of these permits are in Munroe Brook
- How to maintain State permit compliance?
  - Conduct regular maintenance.
  - Conduct inspections and submit annual reports.
  - Complete restatement of compliance (1 / permit cycle).
  - Re-apply for coverage as necessary.



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*\*Permit summary information  
last updated September 13,  
2016*

# State Stormwater Permit Requirements

- Shelburne is currently maintaining 12 permits (MS4 not included):
  - Mowing, tree removal, etc
  - Sediment removal when needed



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# MS4 Permit Overview

The Municipal Separate Storm Sewer System (MS4) Permit Contains Six Minimum Measures:

1. Public Education and Outreach
2. Public Participation / Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-Construction Runoff Control
6. Pollution Prevention / Good Housekeeping

The MS4 permit also contains other requirements related to reporting impaired watersheds.



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# Public Education & Outreach

- Requirement: Implement a public education and outreach program.
- Shelburne meets this requirement by:
  - Participating in RSEP
  - Maintaining a Town stormwater website
  - Distributing pet waste bags

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Other



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YOUTUBE



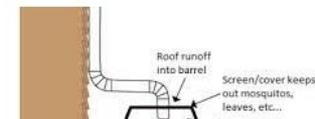
#### QUICK LINKS

- > [Teaching Resources](#)
- > [Videos and Media](#)



#### Fertilizer Use and Lawn Care

Most lawns and gardens in Vermont do not need fertilizer. Don't guess, soil ... [\[Read More...\]](#)



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# Public Involvement & Participation

- Requirement: Implement a public involvement / participation program which engages residents in stormwater management.
- Shelburne meets this requirement by:
  - Participating in CCST
  - Supporting Lewis Creek Assoc. w/ monitoring
  - Storm drain stenciling/markings

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### What's New

## Connecting the Drops Rain Barrel Exhibit and "Build a Rain Barrel" Workshop coming to Milton!

For its fourth anniversary, the Connecting the Drops traveling Rain Barrel Exhibit will be held at the Milton Farmers Market, adjacent to the Hannaford Plaza in Milton, VT, from June 9th – July 7th. As in years prior, this display will feature original art by local artists using rain barrels as the canvas! During the exhibit Chittenden County residents will have a chance to sign up and win one of the five, uniquely-decorated rain barrels for use at their own home or work.

The purpose of the exhibit is to raise awareness about stormwater runoff and the actions property owners can take to reduce stormwater and its negative impact on our waterways. The art-adorned rain barrels will be given away to lucky winners at the July 7th Farmers Market. You can enter for a chance to win in either of two ways: by scanning the QR code at the exhibit between June 9th – July 7th or by visiting <http://letitrainvt.org/connecting-the-drops/>.



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# Illicit Discharge Detection and Elimination (IDDE)

- Requirement: Implement a program to detect and eliminate non-stormwater discharges to the MS4 drainage system.
  - Develop and maintain a GIS or AutoCAD map of the MS4 drainage system.
  - Prohibit non-stormwater discharges.
  - Develop and implement a plan to detect illicit discharges.
  - Inform the public of hazards associated with illicit discharges.

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# Example Illicit Discharge: Sewer Connected to Stormwater System



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# Illicit Discharge Detection and Elimination (IDDE)

- Shelburne meets the IDDE requirement by:
  - Conducting a system wide optical brightener study w/ LaPlatte River Watershed Assoc.
  - Inspecting new construction connections.
  - Maintaining a stormwater system map w/ CCRPC.

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# Construction Site Stormwater Control

- Requirement: Develop and enforce a program to reduce pollutants from construction activities.
- Shelburne meets this requirement by:
  - Adoption of amendments to the Zoning, Subdivision bylaws, and PW specs.
  - Town staff reviews site plans and conducts construction site visits.

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# Construction Site Discharges



# Post-Construction Stormwater Management

- Requirement: Develop and enforce a program to address post-construction stormwater runoff from new and redevelopment projects.
- Shelburne meets this requirement by:
  - Inspecting stormwater systems after development.
  - Requiring a bond or line-of-credit to ensure developments are built to Town standards

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# Pollution Prevention / Good Housekeeping

- Requirement: Develop and implement a program to prevent or reduce pollutants from the MS4 area.
  - Must include training.
  - Prohibit the use of P containing fertilizer.
  - Requires participation in MCAP program.
  - Must report MSGP facilities to DEC.
  - Almost always includes street sweeping and storm drain cleaning.

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# Pollution Prevention / Good Housekeeping

- Shelburne meets this requirement by:
  - Adopting highway maintenance plan
    - Computerized salt delivery in trucks
    - Use of deicing enhancers to reduce salt use
    - Limited use of sand
  - Annual Spring street sweeping
  - Inspection & cleaning of catch basins

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# Other MS4 Requirements

- Annual reporting.
- Stream flow monitoring in SW impaired watersheds.
- Identify expired state permits and make a plan to deal with them.
- Develop Flow Restoration Plans (FRPs) in stormwater impaired watersheds.
- Develop phosphorus control plans as part of Lake P TMDL

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# 3 Acre Stormwater Permit

- Required by Act 64 during the 2015 legislative session.
- Properties containing 3 acres or more of impervious area will be required to manage their stormwater runoff.
- The specifics of this are still being developed.
- Act 64 requires that DEC issue this permit by January 1, 2018.



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# Municipal Roads Stormwater Permit

- Required by Act 64 during the 2015 legislative session.
- Will require management of stormwater runoff from municipal roadways.
- The specifics of this are still being developed.
- Requirements will likely be written into the MS4 permit.
- Permit must be issued by December 31, 2017 and municipalities must obtain coverage by July 1, 2021.



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# Phosphorus Control Plans

- As part of the Lake Champlain P TMDL MS4 communities will need to create Phosphorus Control Plan (PCP).
- Requirements will likely be written into the MS4 permit.
- Will likely require assessment of P loading and plan for P reductions to the Lake.
- Timing uncertain, but likely in the upcoming draft of the MS4 permit.



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# Other Stormwater Responsibilities?

- Maintenance of existing infrastructure
  - Culverts
  - Stormwater drainage structure and piping.
  - Roadside ditches
- Local Regulations
  - Review projects for compliance with stormwater requirements in local regulations.



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# In the Works...

- 2017 planned projects
  - Constructed wetland along Shelburne / So. Burlington line (off Pine Haven Shores Rd)
  - Update Stormwater Management Plan
  - Update Town Stormwater website
  - Resolve privately-owned expired permits within the Munroe Brook Watershed



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# In the Works...

- 2017 planned projects (con't)
  - Annual street sweeping
  - Catch basin cleaning
  - Phosphorus reduction plan RFP?
  - Begin FRP projects?



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# Current Annual Cost



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# Shelburne & South Burlington SW Agreement

- Inter-Municipal agreement in place that allows Shelburne to obtain assistance from South Burlington SW Utility for specific tasks.
- Assistance limited to \$50,000 for FY17.
- Includes both “field work” and “administrative work”.
- Storm drain cleaning and street sweeping have already been completed under this agreement.



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# Future Expected Costs

- Additional annual costs in near future
  - Flow Restoration Projects \$450,000/yr
  - Municipal Roads Permit \$3,361/yr
  - Phosphorus Control Plan Unknown
  - Expired Permits Unknown
  - “3 Acre” Permit Unknown
  - South Burlington Contract Unknown



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# The “Gap”

- Improved Oversight and Management
  - Administrative: Program management.
  - Field work: Outfall inspections.
- Tracking and Reporting
  - Construction site inspections: How many, where, and when?
  - Storm drain cleaning: How many, when, and where?
  - What pond maintenance was completed?
  - Process to update stormwater data after new development?
- Policy Review and Development
  - What is the plan / policy for expired permits?
  - Who is responsible for what on shared permits?
- Local Regulation
  - Improve and clarify local stormwater requirements.
- Funding for stormwater
  - Significant costs over the next 17+ years.



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# Contact Information

- Tom DiPietro
  - Deputy Director of Public Works, South Burlington
  - (802) 658-7961
  - [tdipietro@sburl.com](mailto:tdipietro@sburl.com)
- Chris Robinson
  - Water Quality Superintendent, Shelburne
  - (802) 985-3700
  - [crobinson@shelburnevt.org](mailto:crobinson@shelburnevt.org)



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