

VTRANS CLEAN WATER INITIATIVES & STORMWATER INVESTMENTS

Provided by VTrans for January 2018 Legislative Session

Specific to Water Quality Initiatives and Investments Targeting Regulatory Compliance for VTrans' Highways and Developed Lands

Why does stormwater matter?

- ◆ Stormwater runoff is generated when precipitation from rain and snowmelt flows over land or impervious surfaces and does not infiltrate into the ground.
- ◆ Impervious surfaces and concentrated drainage conveyances increase the frequency, volume, and flow rate of stormwater runoff and pollutants, causing cumulative impacts throughout a watershed.
- ◆ Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, or wetland. Unmitigated, this may result in environmental and economic impacts to downstream waters.

Photo: Stormwater runoff from impervious surfaces



How do roads impact stormwater?

- ◆ Impervious roadway surfaces can quickly convey polluted stormwater runoff to nearby waterways.
- ◆ VTrans is responsible for stormwater collection, conveyance, and treatment along its highways and at other transportation facilities (airports, maintenance yards, park & rides, welcome centers, gravel pits).
- ◆ Linear Transportation stormwater management differs from city, town, retail, and commercial entities:
 - Highways stretch for many miles, crossing multiple waterways, watersheds, and jurisdictions.
 - Transportation storm conveyance systems are linear and often discharge stormwater and associated pollutants that originate outside of the transportation right-of-way.

Photo: Road stormwater collection



What is Vermont's Clean Water Act?

- ◆ Act 64 of 2015 – referred to as Vermont's Clean Water Act – laid the foundation for the protection and restoration of Vermont's waters by adopting a cross-sector "all in" approach, with a broad suite of programs and regulations addressing: agricultural practices, stormwater runoff from roads and non-road developed lands, and natural infrastructure (river corridors, wetlands and forest management).
- ◆ In addition, The U.S. Environmental Protection Agency, in June 2016, established Total Maximum Daily Loads (TMDLs) and reduction targets for phosphorus in the 12 lake segments of Lake Champlain Basin.

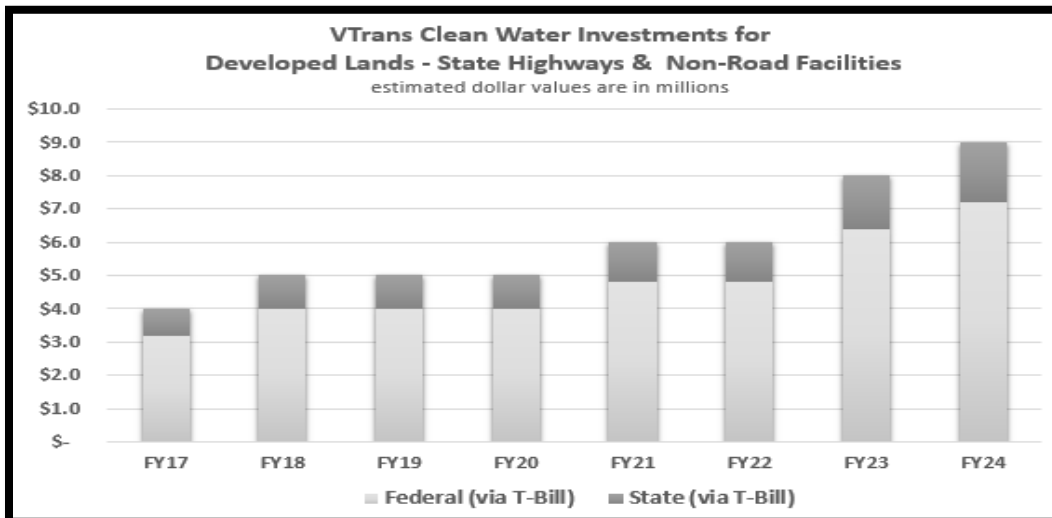
Photo: Algal Bloom



How is VTrans investing in clean water?

- ◆ VTrans has a role to play under Vermont's Clean Water Act and under pre-Act 64 regulations addressing stormwater from its highways and non-road developed lands. *Refer to back page for Clean Water Programs and Regulations VTrans must comply with.*
- ◆ VTrans' Clean Water Initiatives and Stormwater Regulatory Compliance Investments for the State Highway System and VTrans non-road developed lands are anticipated to be covered by the Transportation Bill and Federal Funds where eligible. *See estimated costs below through SFY24 which include Project Development, Construction, O&M and FTE.*

Photo: St. Albans I-89 Median Stormwater Retrofit



VTRANS' STORMWATER REGULATORY REQUIREMENTS

PERMIT PROGRAMS	COVERAGE AND APPLICABILITY	COMPLIANCE ACTIVITIES
TS4 GP Transportation Separate Storm Sewer System General Permit	<ul style="list-style-type: none"> ● Permit effective on 11/29/2017 ● Regulates stormwater discharges from the Statewide VTrans TS4 (including road and non-road developed lands) ● Specific to the unique linear nature of VTrans' infrastructure ● Allows several stormwater programs to be rolled into one comprehensive regulatory program (<i>4 programs listed below</i>) 	<ul style="list-style-type: none"> ● VTrans applied for TS4 coverage in early December 2017 ● ANR authorization anticipated in early 2018 ● Requires development of a Stormwater Management Plan addressing all of the requirements set forth in the TS4 GP ● Requires, at a minimum, compliance with all of the regulatory standards of those programs rolled into the TS4 GP
TS4 GP ENCOMPASSES:		
MS4 → Municipal Separate Storm Sewer System	<ul style="list-style-type: none"> ● Spread across 10 stormwater impaired watersheds ● Includes VTrans highways and non-road developed lands in 12 MS4 communities including: Burlington, Colchester, Essex, Essex Junction, Milton, Rutland Town, Shelburne, South Burlington, St. Albans City and Town, Williston, Winooski 	<ul style="list-style-type: none"> ● Public Education & Participation, Training & Education ● Compliance with State Stormwater Regulations and TMDLs ● Installation of Stormwater Treatment Practices ● Asset Management & Illegal Connection & Run-on Control ● Spill Prevention and Stormwater Pollution Source Control
TMDL → Total Maximum Daily Load	<ul style="list-style-type: none"> ● Establishes reduction targets for specific pollutants (e.g. stormwater flow, phosphorus, E. coli, etc.) in order to attain water quality standards ● Applies to watersheds with identified impairments for which a TMDL has been issued by ANR and approved by EPA 	<ul style="list-style-type: none"> ● Flow Restoration Plans (FRP) in 10 stormwater impaired watersheds ● Phosphorus Control Plans (PCP) in the Lake Champlain Basin ● Construct stormwater treatment practices targeting pollutants of concern in VTrans ROW and on non-road developed lands. Currently VTrans has identified through FRPs 58 stormwater retrofit practices and has installed 4 practices. Development of PCPs has been initiated
MSGP → Multi-Sector Industrial Stormwater	<ul style="list-style-type: none"> ● Covers discharges of stormwater from industrial facilities which conduct activities and use materials that have the potential to impact the quality of Vermont's waters ● Regulated VTrans facilities including 9 State Airports and 3 State Gravel Pits 	<ul style="list-style-type: none"> ● Facilities are required to examine potential sources of pollution, implement measures to reduce the risk of stormwater contamination, and test stormwater discharges for sources of pollution ● VTrans develops and maintains Stormwater Pollution Prevention Plans (SWPPPs) at each facility that include training and education, stormwater management, asset management, erosion control, spill prevention, and stormwater pollution source control
State OSW → Operational Stormwater Discharges	<ul style="list-style-type: none"> ● Coverage under the general permit is required for discharges of regulated stormwater runoff from the construction, expansion, and redevelopment of impervious surfaces pursuant to the permit threshold triggers established in Vermont Statutes 	<ul style="list-style-type: none"> ● Construct and maintain permanent stormwater management and treatment practices for projects that trigger jurisdiction ● In 2017 VTrans had 24 projects in design/permitting and 13 projects installing stormwater treatment practices ● As of 2017 VTrans in managing compliance on 72 projects constructed over many years with stormwater permits and treatment practices requiring ongoing operation, maintenance, inspection and reporting
State CSW Construction Stormwater Discharges (<i>not included under TS4</i>)	<ul style="list-style-type: none"> ● Regulates discharge of stormwater runoff from construction activities 	<ul style="list-style-type: none"> ● Construct temporary stormwater management and treatment practices designed to control erosion and prevent sediment transport ● In the 2017 construction season, 37 of the 80 projects under construction had CSW coverage, requiring 100 compliance visits