

VTrans Water Quality Initiatives

PRESENTED TO THE HOUSE TRANSPORTATION COMMITTEE

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Integrating Stormwater Across the Agency

Staffing across the Agency focused on stormwater includes 4 primary environmental units that work on policy, procedure and rule making and also take projects and asset management from planning stage through design development, permitting, construction, implementation and into ongoing operation and maintenance:



- Policy Planning and Intermodal Development Division
 - Environmental Policy Planner – legislation, policy, procedure
- Project Delivery Bureau – Highway Division
 - Stormwater Management Engineer – scoping, design development, permitting
- Construction Management Bureau – Highway Division
 - Construction Environmental Engineer – monitor construction for compliance
- Pollution Prevention Compliance Section – Maintenance and Fleet Division
 - Stormwater Technicians – policy, procedure, best management practices, research, scoping, design development, mainly post construction maintenance and compliance with other Federal NPDES Clean Water Act Programs (MS4, MSGP, TMDL)

Numerous positions throughout the Agency support the stormwater staff and/or are involved in stormwater design, permitting, ongoing compliance, operation, maintenance and asset management.

Current Stormwater Regulations



- Act 64 of 2015 – “Vermont’s Clean Water Act” – 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).
- As part of its Phase I Implementation Plan developed in response to the Lake Champlain Phosphorus TMDL, the Vermont ANR, in December 2016, issued the Transportation Separate Storm Sewer System (TS4) general permit to VTrans. The permit was effective November 27, 2017.
- State Construction Stormwater Discharges (not part of TS4)

Major Elements of the TS4 Permit

- Municipal Separate Storm sewer System (MS4)

- Public Education & Participation, Training & Education
- Asset Mapping, Inventory, and management
- Spill Prevention and Stormwater Pollution Source Control

- Multi-Sector Industrial General Permit (MSGP)

- Covers discharges of stormwater from industrial facilities which conduct activities that have the potential to impact the quality of Vermont's waters
- Regulated VTrans facilities - 9 State Airports and 3 State Gravel Pits

- State Operational Stormwater Discharges

- Discharges of regulated stormwater runoff from the construction, expansion, and redevelopment of impervious surfaces greater than 1/2 acre

- Total Maximum Daily Load (TMDL) requirements

- Establishes reduction targets for specific pollutants (e.g. stormwater flow, phosphorus, E. coli, etc.) to attain water quality standards
- Stormwater-impaired and Phosphorus



NPDES Multi-Sector Industrial Stormwater Permit (MSGP)

- 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
- Requires facility audits, training, new and retrofit treatment and surface water quality testing
- Requires development of a Stormwater Pollution Prevention Plan for each facility
- Regulated VTrans facilities including 9 State Airports and 3 State Gravel Pits



Vermont Post-Construction Operational Stormwater Discharge Program

- A State program addressing “post construction” stormwater discharges from new or redeveloped impervious surfaces statewide (roads, buildings, parking lots, etc)
- Permanently treating stormwater with structural Best Management Practices (BMPs) i.e. Gravel Wetlands, Sand Filters, Disconnection Area, Stormwater Ponds, etc.
- Statewide program only required on projects that trigger jurisdiction.
 - Effective July 1, 2022 the operational permitting thresholds for new development changed from 1 acre to ½ acre.
 - “grandfathering language”
 - The construction, redevelopment, or expansion is a public transportation project, and as of July 1, 2022, the project has initiated right-of-way valuation activities, and substantial construction of the project commences within five years from July 1, 2022.
- Currently 89 projects constructed and being maintained (and growing).



Total Maximum Daily Load (TMDL)

- TMDLs are issued to address the pollutant of concern or stressors (phosphorus, nitrogen, Stormwater, etc).
- Watershed specific Plans (implementation under TS4)
- Requires collaborative planning/design/construction/maintenance of new & retrofit stormwater treatment.

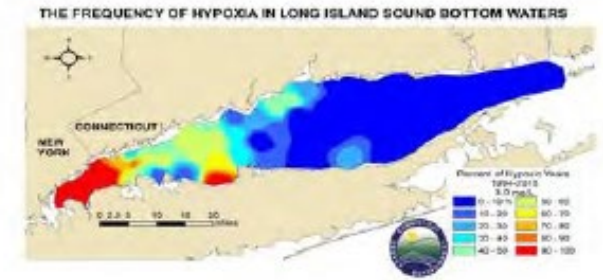
Phosphorus TMDLs for Vermont Segments of Lake Champlain



Lake Memphremagog Phosphorus TMDL



Nitrogen TMDL for Dissolved Oxygen in Long Island Sound



Flow Restoration Planning (FRP) and Phosphorus Control Planning (PCP) under TMDL



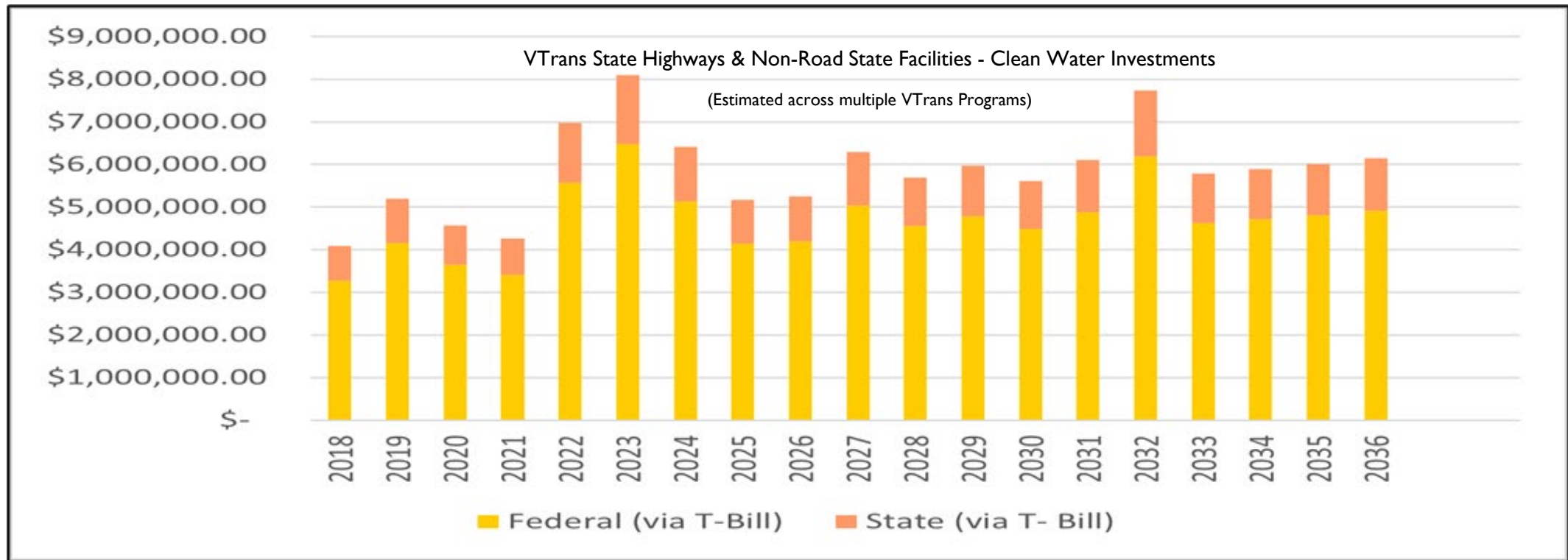
FRP Implementation

- Focus on 303(d) listed waterways impaired for stormwater
 - Allen, Bartlett, Centennial, Indian, Moon, Munroe, Potash, Rugg, Stevens, and Sunderland Brooks
 - VTrans FRP has been developed and is being implemented
 - Williston IM SWFR (1) - completed
 - St. Albans IM SWFR(2) – in construction
 - So. Burlington IM SWFR(3) and Essex NH SWFR(4) – In design
 - Complete implementation no later than December 5, 2032

PCP Development and Implementation

- Lake Champlain TMDL schedule as outlined in the TS4 permit
 - April 2020 – submitted generalized statewide PCP
 - October 2020 – submitted 1st 4-year implementation plan
 - October 2024 – submit 2nd 4-year implementation plan
 - October 2028 – submit 3rd 4-year implementation plan
 - October 2032 – submit 4th 4-year implementation plan
 - No later then June 17, 2036 – complete implementation of PCP

VTrans' Clean Water 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 SFY36 (the compliance date for the LC TMDL) which include Project Development, Construction, O&M and FTE for implementing the Agency's obligations under the TS4.*



VTrans Partners and collaborates with Municipalities, Watershed Groups, State and Federal Agencies, and others looking to gain efficiencies, raise public awareness and address surface water quality issues including

- Vermont DEC
- US EPA
- LCBP
- Regional Planning Commissions
- Watershed Groups like Friends of the Mad River and Friends of the northern Lake Champlain
- Other New England DOTs
- The University of Vermont



The University of Vermont

