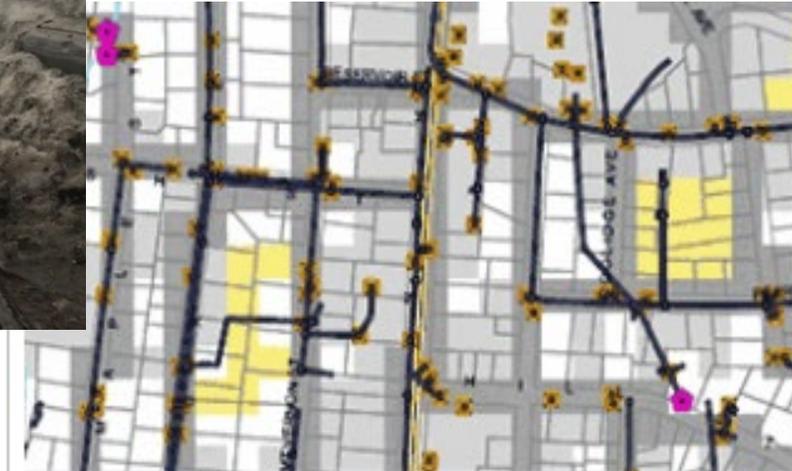


VTrans' Clean Water Funding & Stormwater Utilities

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Starting with “YES” VTrans supports previous partner testimony and DEC objectives:

- ✓ Continue strong partnerships in achieving water quality standards
- ✓ Satisfy EPA “reasonable assurances” under TMDL
- ✓ Need for efficient and immediate funding delivery and governance system for Clean Water Funding/Projects
- ✓ Need an asset management model with immediate impacts and long-term sustainability for Clean Water Projects

Today’s Discussion and Take Home Messages:

Partner input has been informative and VTrans supports Legislature, DEC, and partners in this effort

VTrans owns extensive transportation infrastructure statewide; all regulated under multiple stormwater programs

VTrans’ Clean Water accomplishments under stormwater regulations for 2018 are an example of things to come (expended approx. \$5 million in 2018 – T-Funds, FHWA and FAA Funds)

VTrans is committing substantial funding to meet its clean water obligations (per regulations) and anticipates clean water demands on budgets to grow (projecting \$7 million annual average over next few years)

\$ for VTrans Clean Water Compliance in 2018

\$5 million

= \$5 million for 2018

Overview of Act 158 (2016 Session) Stormwater Utility Report

VTrans pays into Stormwater Utilities (per Act 158 of 2016) using state funds (T-Funds at \$188,000 in 2018)

In addition to receiving SW Utility fees from VTrans, Municipalities also benefit from VTrans projects and grant programs in their communities (\$1.79 million mixed funds T-Funds, FHWA & FAA + Capital and CW Funds for Grants):

- VTrans projects (roadway/non-roadway) with stormwater benefits (\$20,000 Maintenance + undetermined costs of 8 Construction Projects)
- VTrans managed programs that have stormwater benefits (\$370,000)
- VTrans administered and funded municipal grants targeting clean water projects (\$1.4 million)

\$ to Municipalities with SW Utilities in 2018 (from VTrans)

\$188,000

\$20,000 (+) \$ for 8 projects
\$370,000
\$1.4 million

= \$1.8 million (+) for 2018

VTrans Transportation Infrastructure and Facilities

2,709 State Highway System Miles
 (20% of Vermont road network)
 378 Interstate + 2,331 State Highway

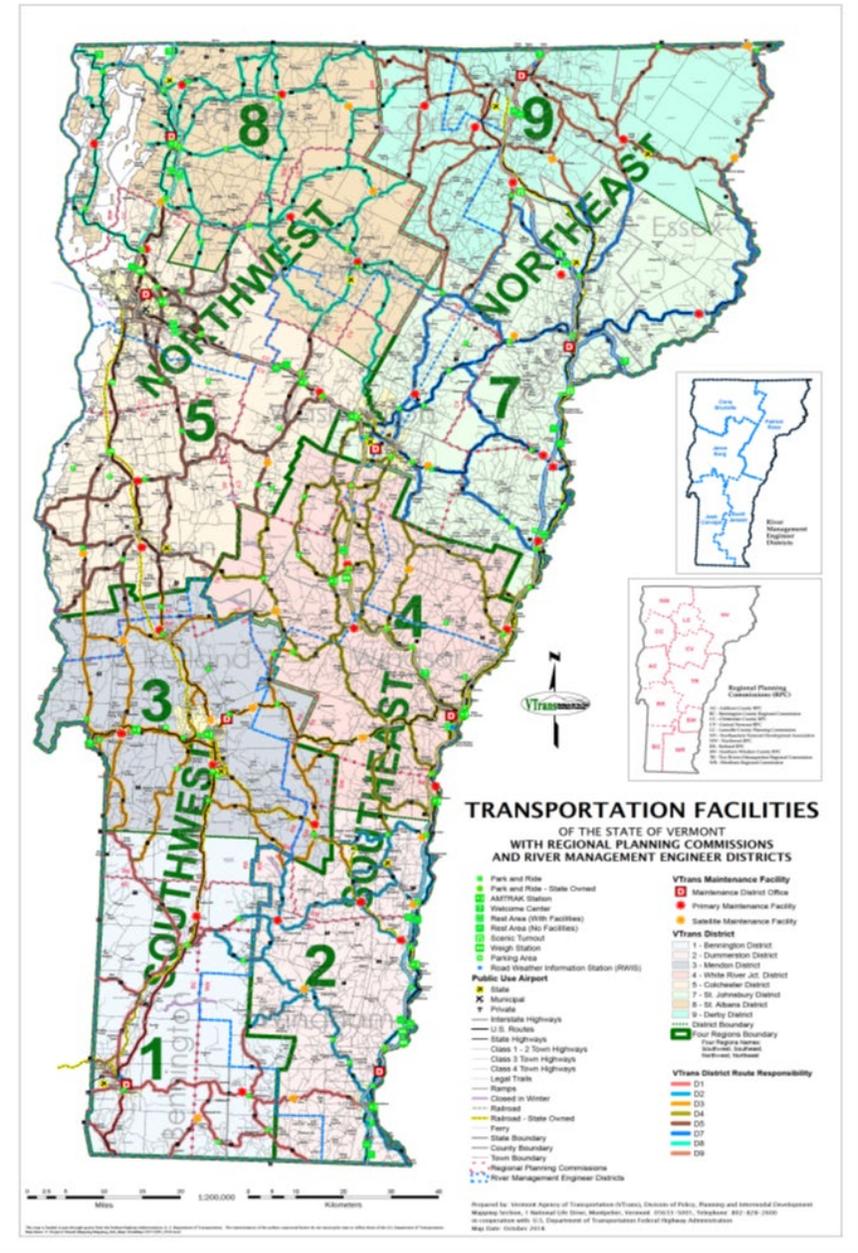
30 State-Owned Park & Ride Lots

64 State Maintenance facilities

10 State-Owned Airports

3 State-Owned Gravel Pits

VTrans maintains extensive compliance programs addressing multiple clean water/stormwater regulations impacting its entire transportation network, associated infrastructure, and facilities.





What is the regulatory framework VTrans is subject to?

VTrans has a role to play under Vermont’s Act 64 “Clean Water Act” and under pre-Act 64 regulations addressing stormwater from its highways and non-road developed lands. *(for details refer to VTrans testimony of 1/29/2019)*

➤ **Transportation Separate Storm Sewer System** (TS4 - since 2018) General Permit (VTrans specific statewide permit allowing several stormwater programs to be rolled into one comprehensive regulatory program), includes:

Municipal Separate Storm Sewer System General Permit (MS4 – since 2003) – a MS4 is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains). In addition to TMDL implementation, requires compliance with six minimum control measures including:

- Public Education & Outreach
- Illicit (non-stormwater) Discharge Elimination
- Post-Construction Runoff Control
- Public Participation & Involvement
- Construction Site Runoff Control
- Pollution Prevention & Good Housekeeping

Total Maximum Daily Load (pre and post Act 64) - establishes reduction targets for specific pollutants (e.g. stormwater flow, phosphorus, E. coli, etc.) to attain water quality standards

Multi-Sector Industrial General Permit (since 2007) – regulates discharges of stormwater from industrial facilities which conduct activities and use materials that have the potential to impact the quality of Vermont’s waters (applies to State Airports and Gravel Pits)

State Operational Stormwater Discharges (since pre-2002) – regulates stormwater runoff from the construction, expansion, and redevelopment of impervious surfaces pursuant to the permit threshold triggers established in Vermont Statutes (average 10 projects per year obtaining coverage and building treatment)

➤ **State Construction Stormwater General Permit** (since 2003) – Not under TS4 - regulates discharge of stormwater runoff from construction activities with average 30 projects per year complying with this permit during construction.



VTrans Clean Water accomplishments (2018)

- ✓ **30 new projects** undergoing stormwater design and permitting under the State Operational Program.
- ✓ **12 new projects** constructing new stormwater treatment practices.
- ✓ **82 previously constructed projects** with stormwater treatment practices were inspected and maintained.
- ✓ **29 of the 77 active construction projects** required Construction Stormwater Permit coverage and implemented erosion prevention and sediment controls and 134 compliance visits by VTrans staff.
- ✓ **58 practices identified, 16 designed, and 4 constructed** to meet our Flow Restoration Reduction Targets in the VTrans designated MS4 to be constructed over seven phases between 2018 and 2032 to comply with our TMDL flow reduction targets in the 10 stormwater impaired streams.
- ✓ Initiated **Missisquoi Bay Watershed Phosphorus Control Planning** to address Lake Champlain TMDL and VTrans' phosphorus reduction targets.
- ✓ **8 new Stormwater Pollution Prevention Plans (SWPPPs)** for VTrans Maintenance Facilities were completed. This is in addition to the existing 12 SWPPPs in place for other VTrans District Facilities, Airports and Gravel Pits.
- ✓ **\$5 million** (approx.) expended on clean water program and compliance costs including planning, design, construction, Operation & Maintenance, and staff time.

VTrans Clean Water Action Plan Budget and Funding Sources

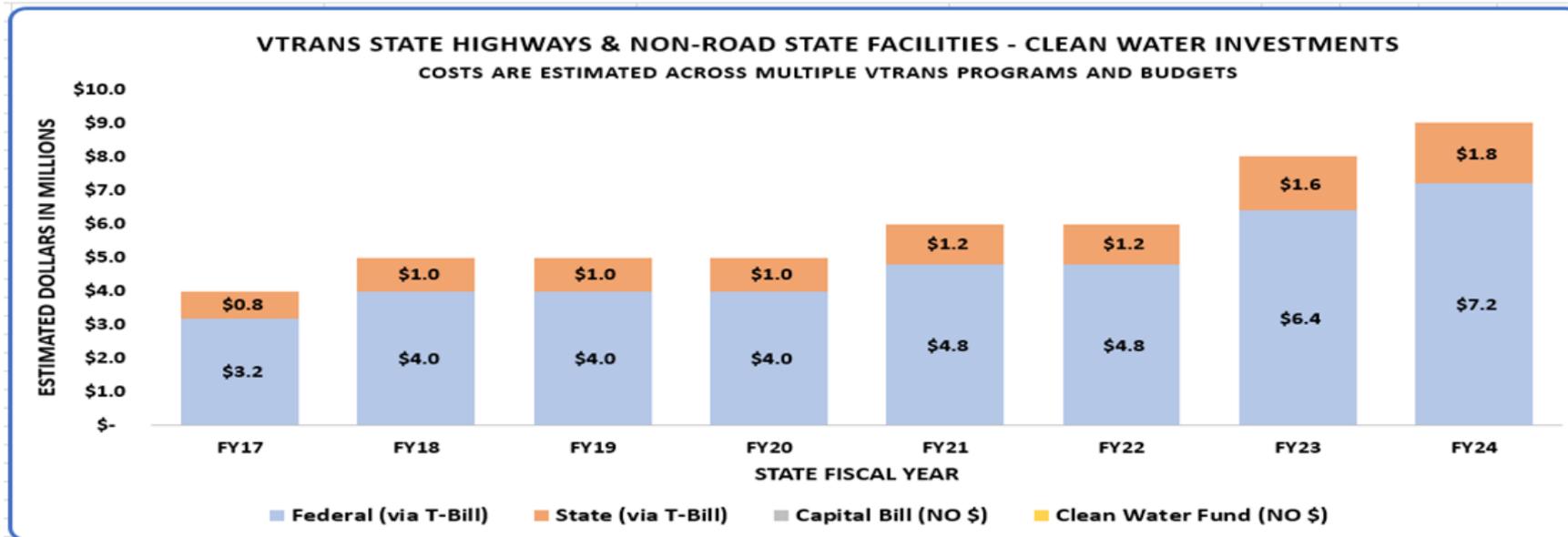
VTrans' Clean Water Program is estimated at an annual average of \$7 million over the next 5 years.

VTrans' 5 year TMDL compliance plan (an 18 to 20 year commitment) is included in our Fiscal Year Transportation Program Projects Book submitted to the General Assembly each legislative session for authorization under Act 38. For FFY 20 refer to:

Page 15 "St. Albans IM SWFR(2)"	Page 18 "Statewide SWFR ()"
Page 17 "Statewide PCPM ()"	Page 23 "Williston IM SWFR (1)"

VTrans' Clean Water Initiatives and Stormwater Regulatory Compliance Investments for the State Highway System and VTrans nonroad developed lands are anticipated to be covered by the Transportation Bill and Federal Funds where eligible and does not include "Capital Dollars".

See estimated costs below through SFY24 which include Project Development, Construction, O&M and FTE across multiple VTrans Programs & Budgets.



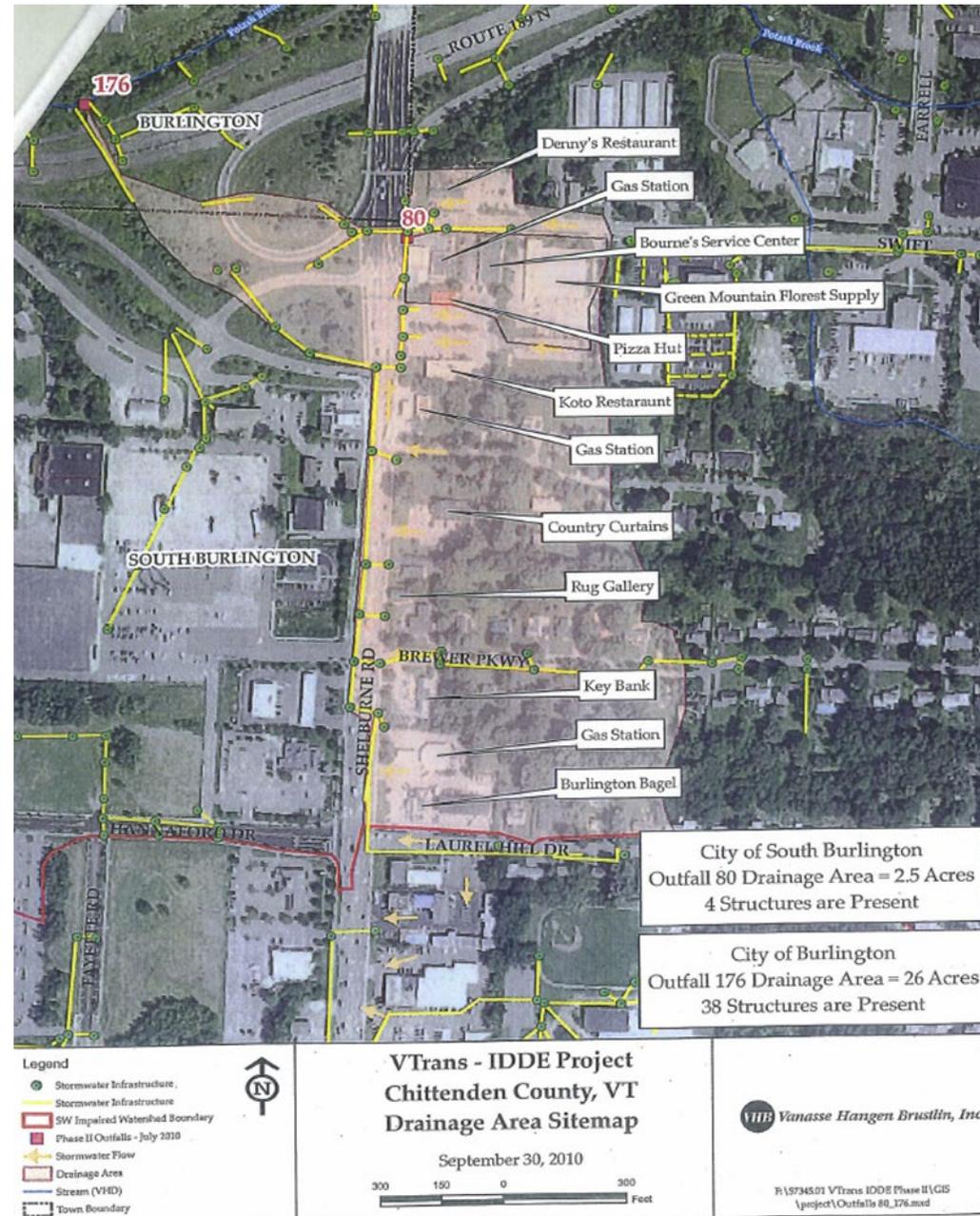
What is a Stormwater Utility?

- Stormwater Utilities were authorized under Act 109 (2002) and, per 10 V.S.A Section 1251(18), is defined as a system adopted by a municipality or group of municipalities under 24 V.S.A. chapter 97, 101 or 105 for management of stormwater runoff.
- A Stormwater Utility is an entity that generates revenue by charging fees for stormwater related services, including the costs of regulatory compliance, planning, maintenance, capital improvements and repair or replacement of infrastructure.
- Fee models include Flat Fee (same rate for all property owners), Tiered Fee (fees based on land use/type), Variable Fee (based on ERU/impervious surface), and Correlative Fee (added to existing fee/tax). Fees are commonly calculated at varying rates \$ value per Equivalent Residential Unit (ERU) based on impervious surface (rooftops, driveways, parking lots, walkways, roads).
- To date, 5 of Vermont's municipalities have created a stormwater utility since the first in 2005.
- The State Agency of Administration provides \$25,000 annually to any municipality that creates and maintains a Stormwater Utility as a monetary incentive.
- Services may or may not be provided to direct benefit of rate payers. VTrans does not receive services nor directly benefits from paying into these utilities.

Stormwater System Mapping

Non-VTrans Stormwater Discharges into the VTrans Stormwater Collection System

Stormwater flows across jurisdictional boundaries



Why a Stormwater Utility Report?

Act 158 of 2016 Legislative Session resulted in:

- Legislative Findings:
 - VTrans Highways and Non-Road Developed Lands are subject to multiple stormwater regulations statewide.
 - VTrans' investments are substantial and targeted at implementing programs and committing resources and funding for construction, operation and maintenance of stormwater treatment infrastructure designed to meet its clean water compliance objectives.
- Automatic 35% credit for VTrans on Stormwater Utility fees; partially based on the assumption that there would be a small number (5 to 10) of Stormwater Utilities formed. Per DEC and Municipal testimony in 2016.
- Annual reporting for 5 years to inform future legislative discussions and decision making.

What is in the Stormwater Utility Report?

Submitted on January 15, 2019 for 2018 Calendar Year (3rd out of 5 annual reports)

As required by Section 34 of Act 158 of 2016, VTrans is required to submit a stormwater utility report for five consecutive years. In summary, the report addresses:

1. Number of municipal stormwater utilities (*SW Utilities*) in existence at time of report.
2. Number of new municipal stormwater utilities established in preceding year.
3. Fees paid by VTrans to municipal stormwater utilities in preceding year.
4. List of stormwater projects implemented by VTrans in municipalities with stormwater utilities over the preceding year.
5. List of stormwater programs implemented by VTrans in municipalities with stormwater utilities over the preceding year.
6. List of water quality related grant awards and stormwater utility incentive grant payments by VTrans to municipalities with stormwater utilities.

SUMMARY TABLE – PRIOR YEAR COMPARISON TO CURRENT YEAR

Report On	2016	2017	2018	Change from Previous Year
1 – Existing SW Utilities at time of Report	3	4	5	1 new
2 – New SW Utilities established in calendar year	0	1	1	1 new
3 – SW Utility Fees Paid	\$25,807	\$109,382	\$188,141	\$78,759 increase
4 – Projects Benefiting Water Quality	\$72,000 and no construction projects	\$124,600 and 6 construction projects	\$19,656 and 8 construction projects	\$104,944 decrease and construction projects increased by 2
5 – Programs Benefiting Water Quality	\$38,000	\$40,600	\$369,882	\$329,282 increase
6 – Grants, Including Incentives Benefiting Water Quality	\$308,000	\$1.6 million	\$1.4 million	\$200,000 decrease

Note: Fees shown under #3 include the 35% automatic credit. (w/out 35% credit = \$254,000 in 2018)

Stormwater related projects VTrans undertook in Municipalities with Stormwater Utilities



St. Albans I-89 Median Swales

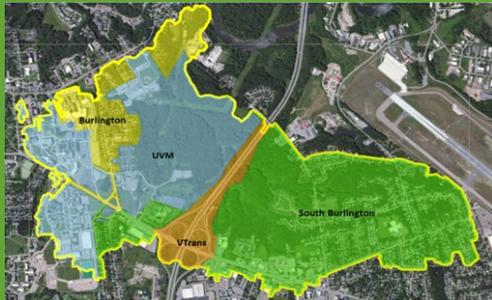


Ditch stabilization

Project/Activity	2018 #’s or Costs
<p>Projects under construction with either:</p> <ul style="list-style-type: none"> ➤ Permanent operational stormwater treatment <ul style="list-style-type: none"> ☞ Burlington = 0 ☞ Colchester = 1 ☞ South Burlington = 0 ☞ Williston = 1 ☞ St. Albans City = 0 ➤ Temporary construction erosion control stormwater treatment <ul style="list-style-type: none"> ☞ Burlington = 0 ☞ Colchester = 2 ☞ South Burlington = 3 ☞ Williston = 1 ☞ St. Albans City = 0 <p>Requiring 25 quality control assurance site inspections by VTrans Construction Environmental Engineers.</p>	8 projects (costs are difficult to tease out and are not included)
<p>Stormwater retrofit projects to meet Total Maximum Daily Load (TMDL) requirements.</p> <ul style="list-style-type: none"> ➤ No stormwater retrofit projects were installed this past year. Construction is scheduled to commence on Allen Brook retrofits in Williston in Spring of 2019. 	\$0
Maintenance District stormwater and water quality projects (retrofits/restoration/slope stabilization/etc.).	\$1,509
Stormwater management system work (new or maintenance); could include DI cleaning, stormwater pipe cleaning, ditching, replacing stormwater pipes, or other.	\$18,147
Total	\$19,656 and 8 active projects

Note: Funds mixed State T-Funds, FHWA and FAA

Stormwater related programs VTrans implemented in Municipalities with Stormwater Utilities



Includes VTrans non-grant/incentive programs.

Programs / Activity	2018 Costs
MS4 Minimum Control Measures (Municipal Separate Storm Sewer System General Permit) ➤ Rethink Runoff: http://rethinkrunoff.org	\$5,500
TMDL Stormwater Flow Restoration Planning (FRP) (Stormwater Impaired Watersheds with Total Maximum Daily Loads). Includes: ➤ Allen Brook Design and Construction Plans (Williston)	\$216,732
TMDL Phosphorus Control/Reduction Retrofit Planning (PCP) (Lake Champlain Phosphorus Impaired Watershed with Total Maximum Daily Load).	\$76,000
TS4 – Transportation Separate Storm Sewer System Permit Compliance. Includes: ➤ Developing Notice of Intent, Stormwater Pollution Prevention Plan and Annual Report Template.	\$39,000
Asset Management/Data Collection capturing and updating stormwater collection, conveyance, and treatment systems. ➤ Summer Temporary Staff (2) worked over Summer 2018 to collect data and map stormwater infrastructure along VTrans Road networks. Work involved State Roads in Burlington, Colchester, South Burlington and Williston.	\$31,000
VTrans Training Center and Vermont Local Roads Education/Training Targeting Municipal Staff. ➤ 3 trainings attended by 2 towns (So. Burlington and Williston) with a total of 4 municipal staff in attendance.	\$1,650
Total	\$369,882

Note: Funds mixed State T-Funds, FHWA and FAA

Stormwater related grant/incentive programs VTrans implement in Municipalities with Stormwater Utilities



Includes municipal grants/incentives including water quality related grant awards and stormwater utility incentive grant payments by VTrans to municipalities with stormwater utilities.

Programs / Activity	2018 Costs
Transportation Alternatives (requires local match not included in totals listed here). Grant awards include: <ul style="list-style-type: none"> ➤ Colchester – Construction of several BMPs in the Moorings Stream Watershed. ↳ (Grant Award = \$295,200) ➤ South Burlington – Construction of a sub-surface stormwater infiltration & detention system. ↳ (Grant Award = \$242,000) ➤ South Burlington – Expansion of an existing stormwater pond along Kennedy Drive. ↳ (Grant Award = \$300,000) 	\$837,200
Municipal Highway & Stormwater Mitigation in the Municipal Mitigation Assistance Program (requires local match not included in totals listed here). Grant awards include: <ul style="list-style-type: none"> ➤ South Burlington - Design/construction of new closed system and associated stormwater treatment along Lindenwood Dr. ↳ (Grant Award = \$303,574) ➤ South Burlington - Retrofit of existing detention pond into a gravel wetland along Kennedy Drive. ↳ (Grant Award = \$253,616) 	\$557,190
Better Roads in the Municipal Mitigation Assistance Program (requires 20% local matching funds not included in totals listed here). <ul style="list-style-type: none"> ➤ No applications were received 	\$0
Municipal Stormwater Utility Incentive Payments in the Municipal Mitigation Assistance Program using Clean Water Funds.	\$0 *
Total (rounded)	\$1.4 million

*Payments in calendar year 2018 are to be made by the Agency of Administration, not VTrans.

Note: Funded through VTrans’ Municipal Assistance Program
 Funding sources include T-Funds, FHWA, Capital Bill, and Clean Water Funds