



**Annual Report for National Pollutant Discharge Elimination System (NPDES)
General Permit 3-9007 for Stormwater Runoff from the State Transportation Separate Storm
Sewer System (TS4; 2017)**

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Table of Contents

1.0	REGULATORY OVERVIEW	2
1.1	BACKGROUND	2
2.0	COVERAGE UNDER THIS PERMIT	3
3.0	ANNUAL REPORTING REQUIREMENTS	3
4.0	DISCHARGE REQUIREMENTS	4
4.1	DISCHARGES TO IMPAIRED WATERS WITH AN APPROVED TOTAL MAXIMUM DAILY LOAD WITH WASTELOAD ALLOCATION.....	5
4.2	DISCHARGES TO IMPAIRED WATERS WITH AN APPROVED TOTAL MAXIMUM DAILY LOAD WITHOUT WASTELOAD ALLOCATION.....	5
4.3	DISCHARGES TO IMPAIRED WATERS WITHOUT AN APPROVED TOTAL MAXIMUM DAILY LOAD	5
5.0	STORMWATER MANAGEMENT PROGRAM	5
6.0	MINIMUM CONTROL MEASURES	6
7.0	INDUSTRIAL ACTIVITY CONTROL MEASURES	6
8.0	STORMWATER DISCHARGES FROM IMPERVIOUS SURFACES	7
9.0	TOTAL MAXIMUM DAILY LOAD IMPLEMENTATION	7
9.1	FLOW RESTORATION PLAN.....	7
9.2	PHOSPHORUS CONTROL PLAN	8
10.0	RECORD KEEPING AND REPORTING	8

APPENDICES

**Appendix A: CHITTENDEN COUNTY REGIONAL STORMWATER EDUCATION PROGRAM
(RSEP)**

**Appendix B: CHITTENDEN COUNTY REGIONAL STORMWATER PUBLIC INVOLVEMENT AND
PARTICIPATION PROGRAM (“STREAM TEAM”)**

1.0 REGULATORY OVERVIEW

In November 2017, the Vermont Agency of Natural Resources (VT ANR) Department of Environmental Conservation (DEC) issued the National Pollutant Discharge Elimination System (NPDES) General Permit 3-9007 (GP 3-9007) for Stormwater Discharges from the State Transportation Separate Storm Sewer System (TS4; the Permit) for stormwater discharges from the Vermont Agency of Transportation (VTrans; the Agency) owned or controlled impervious surfaces. Per Part 1 of the Permit, the purpose of the Permit is to provide efficiencies in overall program management by combining post-construction operational stormwater requirements for VTrans that are associated with its designated regulated small municipal separate storm sewer systems (MS4s); industrial activities, commonly regulated under the Multi-Sector General Permit 3-9003 (MSGP 3-9003); and previously permitted, new, redeveloped, and/or expanded impervious surfaces, commonly regulated under State Operational Stormwater Permits (e.g., General Permit 3-9015, General Permit 3-9010, and Individual Stormwater Discharge Permit [INDS]). The Permit is issued pursuant to the Vermont Water Pollution Control statute, 10 V.S.A. Chapter 47, specifically §§ 1258 and 1264; the Vermont Water Pollution Control Permit Regulations (Environmental Protection Rules, Chapter 13), including the rule governing general permits in Section 13.12; the Vermont Stormwater Management Rule (Environmental Protection Rules, Chapter 18); the Vermont Stormwater Management Rule for Stormwater-Impaired Waters (Environmental Protection Rules, Chapter 22); the federal Clean Water Act (CWA), as amended, 33 U.S.C. § 1251 *et seq.*; and related regulations of the United States Environmental Protection Agency (U.S. EPA) at 40 C.F.R. 122.

1.1 BACKGROUND

In December 2017, VTrans filed a Notice of Intent (NOI) for General Permit 3-9007 to the VT ANR DEC. The NOI included a Stormwater Management Program (SWMP 2017), which includes a comprehensive plan to manage the quality of stormwater discharged from the TS4 in accordance with Part 5 of the Permit. Attachments with the SWMP include:

- Attachment A: List of Waters (Table 1 and Table 2)
- Attachment B: Chittenden County MS4 Stormwater Program Agreement (July 1, 2018)
- Attachment C: VTrans Bridge Washing Best Management Practices and VT ANR Vehicle Washing Policy
- Attachment D: VTrans Flow Restoration Plan
- Attachment E: VTrans Phosphorus Control Plan (to be provided by April 2020)
- Attachment F: Incorporation of Previously Permitted Stormwater Systems
- Attachment G: Stormwater Program Evaluation Top 13 Actions
- Attachment H: Gap Procedure

2.0 COVERAGE UNDER THIS PERMIT

As outlined in Part 2 of the Permit, the Permit applies to:

- VTrans-owned or controlled state highways, sidewalks, multi-use pedestrian paths, welcome centers, airports, gravel pits, mineral mining, maintenance facilities, park & rides, truck weigh stations, and VTrans-owned facilities leased to third parties, including welcome centers and airport facilities (hangars and terminals), and excludes rail lines, rail yards, public transit facilities, and rail trails.
- State highways and VTrans-owned or controlled non-road impervious surfaces in the urbanized areas and stormwater-impaired watersheds of Burlington, Colchester, Essex, Essex Junction, Milton, Shelburne, South Burlington, Williston, Winooski, the University of Vermont, the Burlington International Airport, Jericho, Underhill, St. Albans, the Town of St. Albans, the Town of Rutland, and the City of Rutland.
- VTrans-owned or controlled airport facilities and non-metallic mineral mining facilities.

3.0 ANNUAL REPORTING REQUIREMENTS

In accordance with Subpart 10.2 Annual Report of GP 3-9007, VTrans shall submit annual reports to the DEC Watershed Management Division, Stormwater Management Program by April 1st each year. Flow Restoration Plan (FRP) and Phosphorus Control Plan (PCP) reports may be included with the annual report when reporting deadlines coincide. In addition to FRP and PCP reporting requirements, the annual report shall include reporting requirements under Parts 4, 5, 6, and 7 of the Permit, as well as:

- A. The status of VTrans' compliance with permit conditions, an assessment of the appropriateness of the identified Best Management Practices (BMPs), progress towards achieving implementation of BMPs necessary to meet Total Maximum Daily Load (TMDL) requirements and progress towards achieving the statutory goal for the six minimum measures of reducing the discharge of pollutants to the Maximum Extent Practicable (MEP), and the measurable goals for each of the minimum control measures and TMDL implementation measures;
- B. An inspection report on the condition of VTrans' stormwater management systems that notes all problem areas and all measures taken to correct any problems and to prevent future problems;
- C. Results of information collected and analyzed, if any, during the reporting period, including monitoring data used to assess the success of the program at meeting TMDL requirements and the success of the six minimum measures;

- D. A summary of the stormwater activities VTrans plans to undertake during the next reporting cycle (including an implementation schedule);
- E. Proposed changes to VTrans' SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements; and
- F. Notice that VTrans is relying on another government entity to satisfy some of its permit obligations (if applicable).

In the following sections of this annual report, as well as the accompanying Annual Report Workbook, VTrans is providing a summary of activities as they are associated with the annual reporting requirements listed above. In addition to the information provided in this annual report, the accompanying Annual Report Workbook includes the following tabs with relevant updates:

- Tab 4.0: Discharge Requirements Annual Reporting
- Tab 6.0: Minimum Control Measure (MCM) Annual Reporting
- Tab 6.1: Trainings Summary
- Tab 6.3.a: Facilities Updates
- Tab 7.0: Industrial Activities Summary
- Tab 8.0: Operational Stormwater Management System Annual Inspections Summary
- Tab 9.1: Flow Restoration Plan (FRP) Implementation Summary
- Tab 9.2: Phosphorus Control Plan (PCP) Development Reporting

4.0 DISCHARGE REQUIREMENTS

Impaired waters are those waters that VT ANR has identified pursuant to Section 303(d) of the Clean Water Act (CWA) as not meeting the Vermont Water Quality Standards (VWQS). Impaired waters encompass both those with approved TMDLs or Water Quality Restoration Plans (WQRPs), and those for which TMDL development is necessary but has not yet been approved by the U.S. EPA. Per the Permit, except for Part 9, a VTrans project is considered to discharge to an impaired water if the first water of the State to which runoff discharges is identified as an impaired water. For discharges that enter a separate storm sewer system prior to discharge, the first water of the State to which runoff is discharged is the waterbody that receives the stormwater discharge from the storm sewer system. To address this requirement, VTrans has developed and provided a complete list of first waters to which designated MS4/TS4 areas discharge; included as Table 1 in Attachment A of the SWMP (2018).

4.1 DISCHARGES TO IMPAIRED WATERS WITH AN APPROVED TOTAL MAXIMUM DAILY LOAD WITH WASTELOAD ALLOCATION

Discharges from the TS4 to impaired waters with an approved TMDL and wasteload allocation, including descriptions of the measures being used to address requirements where applicable, are listed in Tables 1 and 2 in Attachment A of the SWMP (2018). Progress on measures VTrans is implementing can be found in Tab 4.0 of the Annual Report Workbook.

4.2 DISCHARGES TO IMPAIRED WATERS WITH AN APPROVED TOTAL MAXIMUM DAILY LOAD WITHOUT WASTELOAD ALLOCATION

Discharges from the TS4 to impaired waters with approved TMDLs, where the TMDL does not specify a WLA or other requirements for the TS4 discharge, are listed in Tables 1 and 2 in Attachment A of the SWMP (2018). These tables include a summary of VT ANR-approved measures that VTrans is implementing to address the pollutant(s) of concern addressed by the TMDL. Progress on measures VTrans is implementing can be found in Tab 4.0 of the Annual Report Workbook.

4.3 DISCHARGES TO IMPAIRED WATERS WITHOUT AN APPROVED TOTAL MAXIMUM DAILY LOAD

Identified and mapped discharges from the TS4 to impaired waters that are listed on the "State of Vermont 303(d) List of Impaired Waters, Part A – Impaired Surface Waters in Need of TMDL" are listed in Tables 1 and 2 in Attachment A of the SWMP (2018). These tables include a summary of measures that VTrans is implementing to ensure compliance with the VWQS. Progress on measures VTrans is implementing can be found in Tab 4.0 of the Annual Report Workbook.

5.0 STORMWATER MANAGEMENT PROGRAM

Per Subpart 5.1 of the Permit, VTrans has developed a written SWMP (2018) to include information required, as necessary, under Part 3 of the Permit; the information required under Part 4 of the Permit to address discharges to impaired waters; the required elements under the six minimum control measures in Part 6 of the Permit; the industrial control measures in Part 7 of the Permit, including the Stormwater Pollution Prevention Plan (SWPPP); the operational stormwater requirements under Part 8 of the Permit; and the Flow Restoration Plan (FRP) and Phosphorus Control Plan (PCP) developed in accordance with Part 9 of the Permit.

To meet requirements of Subpart 5.2 of the Permit, VTrans has performed an annual review of the SWMP and has no changes for this reporting period.

6.0 MINIMUM CONTROL MEASURES

Per Part 6 of the Permit, VTrans has developed and is implementing and enforcing a SWMP (2018), which includes the six minimum control measures that are designed to reduce the discharge of pollutants from the TS4 to the MEP, to protect water quality, and to satisfy the appropriate water quality requirements of the CWA. For purposes of the six minimum control measures, implementation of BMPs consistent with the provisions of the SWMP constitute compliance with the standard of reducing pollutants to the MEP. The six minimum control measures include:

1. Public Education and Outreach on Stormwater Impacts (MCM 6.A)
2. Public Involvement and Participation (MCM 6.B)
3. Illicit Discharge Detection and Elimination (MCM 6.C)
4. Construction Site Stormwater Runoff Control (MCM 6.D)
5. Post-Construction Stormwater Management for New Development and Redevelopment (MCM 6.E)
6. Pollution Prevention and Good Housekeeping for VTrans' Operations (MCM 6.F)

The BMPs that are being implemented by VTrans to address these six minimum control measures are included in Part 6.0 of the SWMP (2018). A summary of annual reporting requirements and progress for each MCM is provided in Tabs 6.0, 6.1, and 6.3.a of the Annual Report Workbook.

7.0 INDUSTRIAL ACTIVITY CONTROL MEASURES

Per Part 7 of the Permit, VTrans has developed and is implementing Stormwater Pollution Prevention Plans (SWPPPs) for its airport transportation facilities and facilities that conduct non-metallic mineral mining and dressing as the primary activity on site and that have the SIC Codes listed in the Permit. VTrans has selected, designed, installed, and implemented control measures, including BMPs, to minimize pollutant discharges that address the selection and design considerations, meet the nonnumeric effluent limits, meet limits contained in applicable effluent limitations, and meet the water quality-based effluent limitations per the relevant subparts of Part 7 of the Permit. A table that lists airport transportation facilities and non-metallic mineral mining and dressing facilities that are included in the VTrans TS4 and that were previously issued an MSGP 3-9003 by VT ANR is provided in Part 7.0 of the SWMP (2018). A link to the SWPPPs that have been prepared for these facilities can be found at:

<https://outside.vermont.gov/agency/VTRANS/external/docs/stormwater/Forms/AllItems.aspx>

A summary of trainings, inspections, monitoring, and any corrective actions taken is provided on Tab 7.0 of the Annual Report Workbook.

8.0 STORMWATER DISCHARGES FROM IMPERVIOUS SURFACES

Per Part 8 of the Permit, permit coverage is provided for: (1) previously permitted stormwater runoff discharges and proposed new stormwater runoff discharges from impervious surfaces that trigger jurisdiction as outlined in Subpart 8.1.A of the Permit, (2) stormwater discharges to waters of the State that are not impaired by stormwater and to waters of the State that are listed as principally impaired due to stormwater runoff with a stormwater WQRP or TMDL on the EPA-approved State of Vermont List of Priority Surface Waters (Part D, Impaired Surface Waters with Completed and Approved TMDLs) and that have an approved FRP or other approved implementation plan.

A list of projects in the TS4 with VTANR operational coverage including status, inspections, and corrective actions needed or taken is provided on Tab 8.0 of the Annual Report Workbook.

9.0 TOTAL MAXIMUM DAILY LOAD IMPLEMENTATION

9.1 FLOW RESTORATION PLAN

VTrans maintains infrastructure within the watersheds of the following stormwater-impaired waters: Allen, Bartlett, Centennial, Indian, Moon, Munroe, Potash, Rugg, Stevens, and Sunderland Brooks. Per Subpart 9.1 of the Permit, VTrans submitted an FRP to VT ANR in October 2016 (FRP 2016) to address requirements of General Permit 3-9014 for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (2012) associated with these watersheds; see Attachment D of the SWMP (2018). Upon approval by VT ANR, the FRP will become a part of the SWMP (2018).

Supporting information per annual reporting requirements of the TS4 are provided in Tab 9.1 of the Annual Report Workbook.

Per Subpart 9.1 of the Permit, VTrans, along with other MS4s, funds a Flow Monitoring Program to address flow and precipitation monitoring in its respective stormwater-impaired watersheds. Stream flow and precipitation monitoring data that are collected through this program are available at the following links:

- Flow monitoring data: <http://vt-ms4-flow.stone-env.com/FlowDev/index.html>
- Precipitation data: <http://vt-ms4-flow.stone-env.com/Precip/index.html>

VTrans spent \$22,225.00 this year on the Flow Monitoring Program.

9.2 PHOSPHORUS CONTROL PLAN

VTrans maintains infrastructure in all 13 lake segments within the Lake Champlain Basin. Per Subpart 9.2 of the Permit, VTrans will develop and implement a comprehensive PCP for the TS4 within the Lake Champlain Basin in phases, beginning with the establishment of baseline phosphorus loading and calculation of the phosphorus load reductions needed to achieve its percent reduction from the TS4 for each Lake segment. Development and implementation of the remaining phases of the PCP, and submittal to VT ANR, will be conducted per the schedule outlined in Subpart 9.2.C of the Permit.

A summary of progress towards meeting the milestones established for phosphorus control planning is provided in Tab 9.2 of the Annual Report Workbook.

10.0 RECORD KEEPING AND REPORTING

Per subpart 10.1 of the Permit, VTrans is retaining records of monitoring information, copies of reports required by the Permit, copies of Discharge Monitoring Reports (DRMs), a copy of its authorization and amended authorizations under this Permit, and records of data used to complete the NOI for this Permit, for a period of at least three years from the date of the sample, measurement, report or application, or for the term of this Permit, whichever is longer. VTrans is retaining copies of written records relating to the stormwater collection, treatment, and control systems, and BMPs, including calculations used to size STPs, authorized under this Permit. VTrans is submitting its records to VT ANR when specifically asked to do so. VTrans is retaining a copy of the SWMP and a copy of the Permit language at a location accessible to VT ANR. VTrans is making its records, including the NOI and SWMP, available to the public, if requested to do so in writing.

Per subpart 10.2 of the Permit, VTrans is submitting its annual reports to the VT DEC, Watershed Management Division, Stormwater Management Program by April 1st each year. FRP and PCP reports may be included with the annual report when reporting deadlines coincide.

APPENDICES

**Appendix A CHITTENDEN COUNTY REGIONAL STORMWATER
EDUCATION PROGRAM (RSEP)**

MCM #1
REGIONAL STORMWATER EDUCATION PROGRAM
RETHINK RUNOFF

JANUARY–DECEMBER 2019
ANNUAL REPORT

Prepared by:

Pluck

Introduction

Since 2003, Chittenden County's twelve MS4s have worked to pool resources to professionally engage the public in a one message, one outreach effort known as the Regional Stormwater Education Program. Through regular spring and summer advertisements to drive people to the program's website, www.smartwaterways.org, this cooperative approach to fulfilling its NPDES Permit Minimum Control Measure #1 (Public Education & Outreach) requirements has built a regional awareness among the public of the need for individual action to assist in fighting stormwater problems.

In the summer of 2016, the MS4s contracted with Tally Ho through their Lead Agency, the Chittenden County Regional Planning Commission, to rebrand the Smart Waterways campaign into a combined effort with the MS4's Minimum Measure #2 regional effort known as the Chittenden County Stream Team. The goal was to create one cohesive organization and outreach effort to both educate the public about stormwater and boost public participation in implementation of projects to combat the negative impacts of stormwater. In spring of 2017, Rethink Runoff was publicly launched, including a new website and revised creative.

In late 2017, Tally Ho transitioned to Pluck, retaining the same client contact. Pluck subsequently took over the creative, administration, and management of Rethink Runoff.

This 2019 calendar year report recaps the work done primarily related to Minimum Control Measure #1.

2019 Initiatives

Having completed the initial rebranding to Rethink Runoff and the website redesign in 2017, and a focus on updating the advertising in 2018, this past year left us a canvas to improve on the work done.

We revised digital display advertising and updated all three video animations for YouTube. Similar to last year, we targeted various demographics in all MS-4 towns based on subject matter and interests (home improvement, gardening, fishing, water recreation, pets, etc.).

In addition to a heavy YouTube presence, videos were also shown on WCAX in limited quantity as well as on Comcast/Infinity cable stations.

Print advertising in *Seven Days* also continued our seasonal approach, increasing visibility for specific activities at specific times.

In addition to advertising, we revised content across the website. We simplified top-level messaging, simplifying terms and making headlines and introductions more conversational in nature. The same shift in content was carried throughout the subpages as well.

We also created a new system of materials for the Stream Team. For events, we created a tabling system, including a branded tablecloth and a large-scale pop-up banner with top-level messaging. In addition, we finalized the Rain Garden signage.

We created a series of print materials:

- A rack card highlighting simplified actions that homeowners can take to mitigate runoff.
- Another rack card highlighting the Stream Team and its various activities and initiatives.
- A small call-to-action card, printed on seed-based paper that could be planted with wildflowers native to the Northeast.
- Series of downloadable posters, 8.5x11 and 11x17, for each of our ad series: Champ, Car Care, Rain Gardens, Pets, Rain Barrels, and The Stream Team.

Stream Team Outreach Materials



COMMUNITY RAIN GARDEN SIGNAGE



POP-UP BANNER



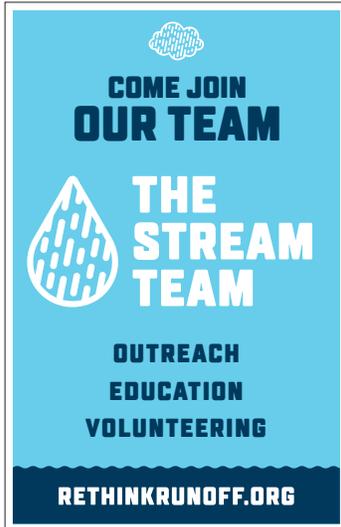
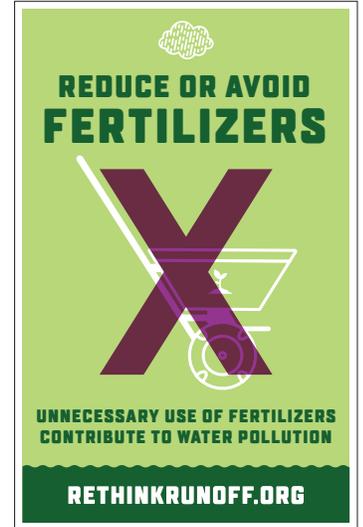
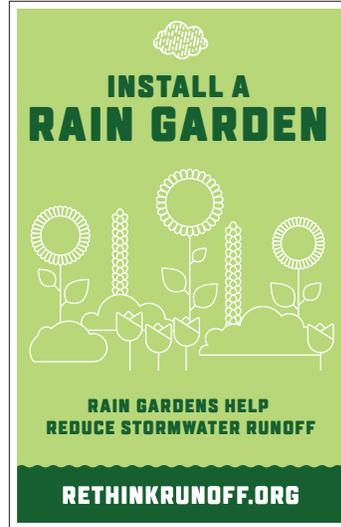
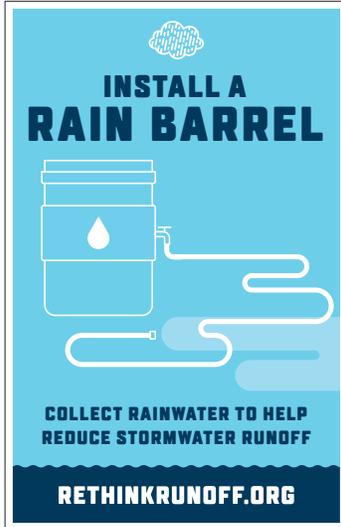
CALL-TO-ACTION SEED CARD



RACK CARDS



Downloadable Posters



Media Buy Breakdown

Below is a cost breakdown of media buys, compared with 2016, 2017, and 2018. Overall, we've continued to reduce our radio media buys, shifting to a larger digital media buy. This past year, we also increased our television media buy, since we have three different focused animated spots.

We added a small media buy in January/February, focused on pet waste pick-up—something we will continue to do in 2020. In addition, we've continued to roll over any excess spring digital media buys into a longer summer media buy.

2016 – MEDIA BUY			
SOURCE	SPRING	SUMMER	FALL
RADIO	\$4,500	-	\$3,258
DIGITAL	\$7,500	-	\$4,985
TV	\$5,500	-	\$2,379
PRINT	\$2,500	-	
TOTAL	\$20,000	-	\$10,622

2017 – MEDIA BUY			
SOURCE	SPRING	SUMMER* 05/28-08/02	FALL
RADIO	\$3,088	-	\$1,080
DIGITAL	\$3,600	\$3,826	\$4,582
TV	\$2,015	-	\$1,833
PRINT	\$1,755	\$585	\$1,170
TOTAL	\$13,191	\$4,235	\$8,666

2018 – MEDIA BUY			
SOURCE	SPRING	SUMMER* 6/16-08/27	FALL
RADIO	\$2,675	-	\$1,044
DIGITAL	\$3,394	\$7,534	\$2,987
TV	\$3,710	-	\$2,472
PRINT	\$1,755	-	\$1,006
TOTAL	\$11,534	\$7,534	\$7,509

2019 – MEDIA BUY				
SOURCE	WINTER	SPRING	SUMMER* 5/27-09/2	FALL
RADIO	\$360	\$1,008		\$1,025
DIGITAL	\$1,800	\$2,320	\$5,830	\$3,000
TV		\$5,830		\$3,306
PRINT	\$503	\$2,012		\$1,006
TOTAL	\$2,663	\$11,170	\$5,830	\$7,509

* For 2017 and 2018, Summer was initially planned as part of the spring 2018 budget. Moving forward, the spring media buy will include all purchases made through 7/1. The Fall media buy will include any media buys made from 7/1 to the end of the summer.

Creative

Advertising during 2017 included redesigned creative, incorporating existing messaging with a new visual language based on Rethink Runoff. In 2018, we created a series of three :30 animated video spots (installing a rain garden, installing a rain barrel, and avoiding fertilizer), exporting one on as a radio spot. In addition, we began introducing additional seasonal display advertising, including a series for Clean Water Week.

Advertising for 2019 included updated 2017 creative as well as new ads released from April-July, tied to spring/summer activities. All ads were rolled out in 8-10 different sizes. Fertilizer and Rain Garden ads were positioned in early spring and fall. Rain Barrel and Fishing ads were positioned in late spring through fall. Water Recreation was pushed through summer to early fall while the General, Champ and Stream Team ads were positioned from early spring through fall. The media buys for the video reflected the display ad media buys. We also created winter-specific Pet Waste ads to target pet owners who may not pick up their pet waste in the winter, placing media buys in late January/February 2019.

Revised Creative



GENERAL LAKE



STREAM TEAM



FERTILIZER



GENERAL CHAMP



SLOW THE FLOW



RAIN GARDEN



RAIN BARREL



FISHING



PET WASTE 1



PET WASTE 2



WATER RECREATION

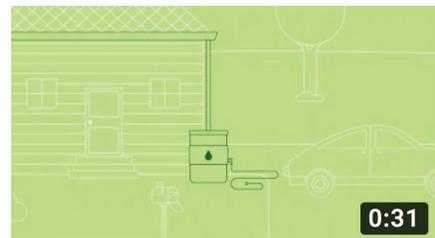
Videos



APRIL - FERTILIZER
[HTTPS://WWW.YOUTUBE.COM/WATCH?V=T8BY6UBQSUW](https://www.youtube.com/watch?v=T8BY6UBQSUW)



MAY - RAIN GARDEN
[HTTPS://WWW.YOUTUBE.COM/WATCH?V=E9RNXJSYEIG](https://www.youtube.com/watch?v=E9RNXJSYEIG)



JUNE - RAIN BARREL
[HTTPS://WWW.YOUTUBE.COM/WATCH?V=ZZJ_MEP9Q_Q](https://www.youtube.com/watch?v=ZZJ_MEP9Q_Q)

Advertising Click-through Rates, 2019

SOURCE	IMPRESSIONS	INTERACTIONS/ VIEWS	COST	COST PER CLICK
DISPLAY ADS	4,432,126	4,870	\$6,910	\$1.41
VIDEO (YOUTUBE)	380,633	176,983	\$3,850	\$0.02
WCAX DIGITAL	200,004	116	\$1,500	\$12.93

Google Display Ads Overview, 2019

Most Popular by Impressions

CALENDAR YEAR 2019 NAME	SPRING: 4/15-MEMORIAL DAY NAME	SUMMER: MEMORIAL-LABOR DAY NAME	FALL: LABOR DAY-10/31 NAME
GENERAL LAKE	RAIN GARDEN	RAIN GARDEN	GENERAL LAKE
PET WASTE	GENERAL CHAMP	GENERAL LAKE	FERTILIZER
RAIN GARDEN	GENERAL LAKE	GENERAL CHAMP	GENERAL CHAMP

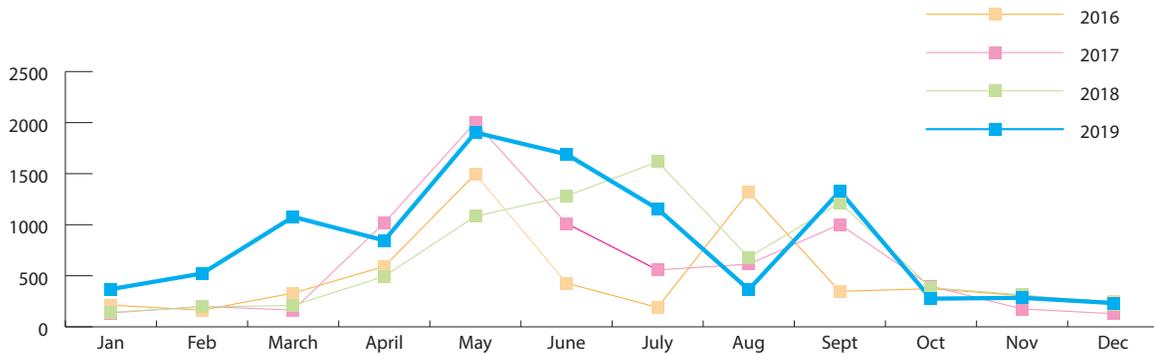
Most Popular by Interaction

CALENDAR YEAR 2019 NAME	SPRING: 4/15-MEMORIAL DAY NAME	SUMMER: MEMORIAL-LABOR DAY NAME	FALL: LABOR DAY-10/31 NAME
GENERAL LAKE	GENERAL LAKE	RAIN GARDEN	GENERAL LAKE
PET WASTE	GENERAL CHAMP	GENERAL LAKE	FERTILIZER
RAIN GARDEN	RAIN GARDEN	PET WASTE	GENERAL CHAMP

Most Effective by Cost-per-click

CALENDAR YEAR 2019		SPRING: 4/15-MEMORIAL DAY		SUMMER: MEMORIAL-LABOR DAY		FALL: LABOR DAY-10/31	
TOTAL	TIME PERIOD	TOTAL	TIME PERIOD	TOTAL	TIME PERIOD	TOTAL	TIME PERIOD
FERTILIZER	\$0.55/CLICK	GENERAL CHAMP	\$0.55/CLICK	RAIN GARDEN	\$0.58/CLICK	FERTILIZER	\$0.54/CLICK
RAIN GARDEN	\$0.58/CLICK	RAIN GARDEN	\$0.56/CLICK	GENERAL CHAMP	\$0.63/CLICK	GENERAL CHAMP	\$0.58/CLICK
GENERAL CHAMP	\$0.59/CLICK	GENERAL LAKE	\$0.67/CLICK	GENERAL LAKE	\$0.69/CLICK	GENERAL LAKE	\$0.76/CLICK

Website Metrics for 2013–2019



2019 vs. 2018 Users

+26.05%
8,531 vs 6,768

New Users

+27.95%
8,529 vs 6,666

Pageviews

+30.64%
15,769 vs 12,071

Total Sessions/Visits (1/1–12/31)

TOTAL	TIME PERIOD
10,111	2019
7,832	2018
7,407	2017
6,004	2016
4,659	2015
7,728	2014
3,541	2013
2,787	2012

Website visits by device

DEVICE	2019	2018	2017	2016
DESKTOP	40.2%	50.1%	52.8%	65.7%
MOBILE	44%	40.6%	36.4%	24.5%
TABLET	15.8%	9.3%	10.8%	9.8%

Top Vermont Cities and Towns, 2019

TOTAL	CITY/TOWN	USERS	PERCENTAGE
1354	BURLINGTON	1354	27.32%
877	SOUTH BURLINGTON	877	17.73%
784	COLCHESTER	784	15.84%
770	ESSEX/ESSEX JCT.	770	15.56%
254	SHELBURNE	254	5.12%
120	HINESBURG	120	2.43%
98	WILLISTON	98	1.98%
97	SAINT ALBANS CITY	97	1.96%
59	MONTPELIER	59	1.17%

Most visited pages, 2019

TOTAL
Homepage
GET EDUCATED/PROBLEMS & SOLUTIONS/RAIN GARDEN
GET EDUCATED/PROBLEMS & SOLUTIONS/PET WASTE
GET EDUCATED
GET EDUCATED/PET WASTE
GET INVOLVED
EXPLORE THE LAKE CHAMPLAIN BASIN
GET EDUCATED/KIDS
GET EDUCATED/REDUCE FERTILIZER
GET EDUCATED/ALGAE BLOOMS

New York, 193 Users

Boston, 47 Users

**Appendix B CHITTENDEN COUNTY REGIONAL STORMWATER
PUBLIC INVOLVEMENT AND PARTICIPATION
PROGRAM (“STREAM TEAM”)**

MCM #2: Rethink Runoff Stream Team Summary of Activities 2019 Calendar Year



Social Media

Facebook

- Total Posts = 29
- 254 total “likes”
- 294 total “follows”

Instagram

- Total Posts = 16
- 179 total “follows”

RRST Website

- See final report from Dave Barron (Pluck Design)
- Added outreach events to calendar on website

Newsletter and e-correspondence

- As of 12/9/19 there were **629** subscribers to the RRST newsletter (an increase from 508 in 2018)
The average open rate for emails was about 30%
- Spring Newsletter Published on 2/26/19 Opens: 179 Clicks: 21
- Summer Newsletter Published on 7/9/19 Opens: 185 Clicks: 29
- Fall Newsletter Published on 11/22/19 Opens: 172 Clicks: 23

Organizational Partnerships

The Rethink Runoff Stream Team partnered with 11 organizations in 2019:

1. **Shelburne Community School** - A teacher at Shelburne Community School invited the RRST coordinator to teach a 1-hour class to 5th graders to kick off their watershed and ecology unit - Lesson taught to 90 students on 4/4/19, 40 of those students also helped complete the Storm Drain Mural project in Shelburne by designing and painting raindrops to contribute to Julie Holmes’s mural on 9/27/19
2. **Essex Middle School** - Taught a mini rain barrel workshop to 8 students 5/10/19
3. **Williston Master Naturalists** - The Master Naturalists volunteered to help organize riparian stewardship days at the Allen Brook tree planting site from last year. They recruited community volunteers to help weed, clear trash and inventory tree survival rates. (4/28/19 and 5/4/19)
4. **Winooski Valley Parks District** - WVPD hosted Conservation Field Day 5/15/19 bringing together area schools for a day in Ethan Allen Homestead Park. RRST facilitated a station called “Build a Watershed” where students created a 3D model of a fictional community and used a spray bottle to observe the impact of runoff and pollution in their community.
5. **Cub Scout Pack 678** - Rain Garden adopters in S. Burlington
6. **Marsh-Billings Rockefeller National Historical Park** A guest intern from the park visited for a day to assist the Stream Team coordinator with checking in samples and to learn about the structure of the citizen science program.
7. **Williston Conservation Commission** - Coordinated to decrease the cost of delivering water quality samples to the new lab in Randolph by sharing a courier service.



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8. **Brownell Library** - Allowed RRST to host a kid's watershed activity hour as part of their "Wonder Wednesday" series and to set up a "pop up" style information table before their most popular speaker series for adults. (11/6/19) Also displayed books from the Clean Water Reading List for the month of November.
9. **State of Vermont: LaRosa Water Quality Sampling Grant** - The RRST coordinator successfully applied for a grant from the State of Vermont to cover for the cost of analyzing water quality samples at the VAEL lab in Randolph. The value of the lab services that this grant made available this year was approximately \$3,000.
10. **Shelburne Farms** - Invited RRST to table at the annual Shelburne Harvest Festival
11. **Watersheds United Vermont (WUV) & Watershed Consulting Associates (WCA):** WNRCD was awarded a grant that allows them to meet with a watershed data professional to discuss the analysis of water quality sampling data. Discussions with WCA will inform the Stream Team water quality sampling program in 2020 and beyond.

Media Rethink Runoff Stream Team had 7 media appearances in 2019:

1. Article published in international Stormwater Management publication (published by WEF Stormwater Institute) Volume 7, Issue 1 Spring 2019 - Cover picture and article on pages 20-21 <https://www.wef.org/resources/publications/all-magazines/world-water-stormwater/>
2. Article published in The Other Paper to recruit water quality monitoring volunteers (5/9/19) https://www.otherpapersbvt.com/news/around_town/volunteer-as-a-summer-water-quality-monitor/article_e0a70cd2-7290-11e9-b09b-a3c0e2ed59fc.html
3. Call for Artists published in Milton Independent on (7/4/19) https://issuu.com/miltonindependent/docs/2019_0704_forweb
4. Milton Independent Follow-Up (7/31/19) <https://www.miltonindependent.com/art-for-awareness-muralists-adorn-milton-storm-drains/>
5. Call for Artists Shelburne News (8/29/19) <http://www.shelburnenews.com/2019/08/29/call-artists-storm-drain-mural-project/>
6. Stream Clean Up Article in Williston Observer (9/26/19) https://issuu.com/vermontmaturity/docs/9-26-19_no_2_final
7. Shelburne Storm Drain Mural Article in Shelburne News (10/3/19) <http://www.shelburnenews.com/2019/10/03/pavement-murals-point-trouble-water-runoff-real-problem/>



Figure 1: Thumbnails of some 2019 RRST appearances in local newspapers



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Outreach

Outreach includes any educational opportunities or tabling events where resources or information are provided to the community about the RRST program. There were **six** outreach events in 2019, with an estimated total outreach to = **278** people.

Outreach events in 2019 targeted the municipalities of **Colchester, Essex and Essex Junction**

- **Colchester** Community Dinner Tabling Event (3/4/19)
 - 25 residents reached
- **Shelburne** Watershed Lesson at Shelburne Community School (4/4/19)
 - Reached 90 5th grade students and 10 adults = **100** total
- **Various Municipalities:** Conservation Field Day with Winooski Valley Parks District (5/15/19)
 - Taught a 25-minute station called “Build a Watershed” to 5 groups of 5th grade students
 - Reached **60** students and chaperones (equal amounts from S. Burlington, Burlington, Colchester and Essex Junction)
- **Various Municipalities:** Shelburne Harvest Festival (9/21/19)
 - Table was hosted by Winooski NRCD with a portion of the table dedicated to Stream Team materials. Many residents in the RRST area had questions about water quality and engaged with the stream team materials. About **50** total people reached: 10 Burlington, 10 S. Burlington, 10 Essex & Essex Junction, 20 Shelburne)
- **Essex Junction** Library Project 11/6/19
 - The RRST coordinator taught a kid’s watershed activity hour as part of the ongoing “Wonder Wednesday” series. 13 kids and 10 parents attended. Kids played “Butterfly River” and “Build a Watershed.” Kids who arrived early also studied that map of the Lake Champlain Basin to look for clues about the meaning of the word “Watershed.” Many families took handouts and copies of the Stormwater Maze at the end of the session.
 - RRST set up a “pop up” style information table before their most popular speaker series for adults. The RRST coordinator spoke with 20 people. Many people took handouts or asked questions about stormwater on their property. Many residents expressed frustration at living in condo associations where they feel less empowered to make water-friendly changes to their space. We may explore opportunities for outreach to condo associations in the future to address this need.
 - Total in-person outreach = **43 residents**
 - The library also displayed books from the Clean Water Reading List for the month of November. The books were available for library members to check out and RRST stickers and handouts were also available for anyone to take for free.
- **Essex** Library Project
 - An outreach event was planned at Essex Library for fall 2019 that was similar to the Brownell Library program, but the library experienced flooding in their community room. This program has been rescheduled to January 2020



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Figure 2: Left: Books from the Clean Water Reading List on display at Brownell Library. Right: Tabling display set-up including the new Clean Water Trivia Board and newly printed Rethink Runoff tablecloth

The 2019 work plan goal for outreach was 80 people, which was surpassed. A total of **278** people were engaged through outreach in 2019. Outreach towns for 2020 are Williston, Winooski and South Burlington.

New Outreach Activities Created:

1. Clean Water Reading List
2. Trivia Board
3. Watershed Curriculum from Shelburne Community School Program

New Outreach Tools Created with assistance from Pluck

1. “Get Involved” Rack Card
2. “Keep Lake Champlain Clean Rack Card”
3. Large standing sign
4. Tablecloth printed with RRST logo

Projects

Six hands-on events were held in 2019. Event-Driven Tasks involve community members in some form of hands-on engagement. Hands-on participation events in 2019 targeted the towns of Burlington, Shelburne, and Milton.

- **Burlington** Rain Barrel Workshop (5/4/19)
 - 32 barrels built, 47 Burlington residents attended
- **Essex** Mini Rain Barrel Workshop (5/10/19) 10 Essex residents reached (8 students, 2 adult chaperones = **10** total), 3 barrels created.
- **Williston** Riparian Stewardship Days
 - Williston, Allen Brook (4/28/19 and 5/4/19)
 - Over the course of both days about **20** volunteers helped tend to trees planted along the brook last year. They removed choking vines, weeded around the base of the trees and took an inventory of the trees to estimate survival rate (over 90%)
- **Milton** Storm Drain Murals (7/29/19)
 - Two murals painted in Milton - articles published in Milton Independent, great social media coverage. People involved included 2 artists, 5 family members of artists and 1 reporter.



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Total: **8** people directly engaged.

- **Williston** Stream Clean Up (9/14/19)
 - **11** volunteers removed 15 bags of trash from tributaries to Muddy Brook
- **Shelburne** Storm Drain Murals (9/27/19)
 - Two murals painted in Shelburne. People involved included 2 artists, 40 local students involved in painting process and 1 reporter. (Total: **43**) Article published in Shelburne News.

A total of **139** people participated in hands-on RRST events in 2019. (A subcategory: A total of **86** people volunteered their time through RRST activities in 2019). Project towns for 2020 are Essex, Essex Junction, and Colchester.

City of Burlington Project: Rain Barrel Workshop

Summary: RRST coordinated a rain barrel workshop for the City of Burlington on May 4, 2019. 47 people attended and 34 barrels were constructed. Registration was \$35 and sign-ups were coordinated online through Google Forms and the WRNCD PayPal account.

Advertising: Planning for the event began in January. The City of Burlington created a poster and the RRST coordinator created a press release and Facebook event. The following media venues were used to spread the word: Facebook, Instagram, Front Porch Forum, Rethink Runoff website, City of Burlington website, posters around town. This outreach garnered interest from 100 people (50 from Burlington, who were given top priority and 50 from other towns).

Challenges: RRST did encounter some challenges sourcing materials. The main supplier of plastic barrels discontinued ordering products in those containers, so the RRST coordinator sought other sources in the community. Unfortunately, the price of each barrel was more than double with the alternate sources. Plenty of staff time was spent troubleshooting this challenge. In the future we anticipate this project taking less time and costing less money.

Impact: The 34 barrels that were built will be installed at residences around Burlington and will help decrease the volume of stormwater during rain events. Participants will become advocates for clean water solutions in the City. The mailing list increased by 70 people due to folks who signed up for the list during the event registration period. Finally, we know there is high demand for rain barrel workshops. The RRST coordinator will work to secure a more stable source for the plastic barrels so that we can offer the workshop at an affordable rate for many years to come.

Costs: The total estimated cost to plan, manage, and implement this project was **\$3,300**. The approximate personnel time used to plan and execute the project was 70 hours (\$3,150). The total cost of supplies (less registration income) was \$100. The mileage was about \$50.



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Figure 3: Participants at the Burlington Rain Barrel Workshop drill, assemble and caulk their new barrels.

Town of Milton Project: Storm Drain Mural

Summary: RRST coordinated a storm drain mural project in Milton. Four artist applications were received and two were selected: Erin Schmitt (a high school art teacher from Milton) and Jessica Zawicki (from St. Albans). On July 29, 2019 the artists painted their murals working from 9am to 5pm to complete the artwork.

Advertising: The RRST coordinator created a call for artists press release and used the following media venues to spread the word: Facebook, Instagram, Front Porch Forum and in the Milton Independent. A reporter from the Milton Independent also interviewed the RRST coordinator and took pictures of the artists on the day of the event. An article was published on 7/31/19. A link to the article can be found in the summary of publications on page 2.

Impact: The murals will stand as an enduring reminder to the residents of Milton that everyone is responsible for keeping storm water and Lake Champlain clean.

Costs: The total estimated cost to plan, manage, and implement this project was **\$1,940**. The approximate personnel time used to plan and execute the project was 30 hours (\$1,350). The total cost of supplies was \$20. The mileage was about \$40. Each of the artists was granted a \$250 stipend for their materials and time, creating a contractual cost of \$500.



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Figure 4: Artist Jessi Zawicki paints her mural at the corner of Rt. 7 and Main St (7/29/19) Text says: "Drains to Champlain"



Figure 5: Artist Erin Schmitt paints her mural of Champ on Center Drive between Kinney Drugs and VT Federal Credit Union (7/29/19) Text says: "Only Rain in the Drain"



Fig 6: Social Media Splash! The Facebook post about the completed murals was shared by more than 10 people or organizations and seen by over 4,500 people.

Town of Shelburne: Storm Drain Mural

Summary: RRST coordinated a storm drain mural project in Shelburne in September. Twenty-four applications were received and two were selected. Heatheranne Lee (a high school student from Shelburne) and Julie Holmes (an artist and music teacher from Charlotte) submitted the winning designs. On September



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27, 2019, the artists painted their murals. 40 Students from Shelburne Community School helped artist Holmes create her mural. Holmes’s message was “Every Drop Counts.” She wanted each student to paint a unique raindrop in the lake to represent how each person is unique and how each person’s actions make a difference.

Advertising: The RRST coordinator created a call for artists press release and used the following media venues to spread the word: Facebook, Instagram, Front Porch Forum and a press release in the Shelburne News. A reporter from Shelburne News interviewed the RRST coordinator and artists. An article was published on 10/3/19. A link to the article be found in the summary of publications on page 2.

Impact: The murals will stand as an enduring reminder to the residents of Shelburne that everyone is responsible for keeping storm water and Lake Champlain clean.

Cost: The total estimated cost to plan, manage, and implement this project was **\$1,960**. The approximate personnel time used to plan and execute the project was 30 hours (\$1,350). The total cost of supplies was \$55. The mileage was about \$25. Each of the artists was granted a \$250 stipend for their materials and time, creating a contractual cost of \$500.



Figure 7: Artist Heatheranne Lee’s Mural outside of Shelburne Country Store (9/27/19) Text says: “Keep the Water Clear, Remember Champ Lives Here”



Figure 8: Artist Julie Holmes’s Mural outside of Pierson Library (9/27/19) Text says: “Every Drop



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Counts, Keep It Clean”



Figure 9: Students from Shelburne Community School help Artist Julie Holmes’s paint her mural outside of Pierson Library (9/27/19) Each student created a unique design to fit the theme “Every Drop Counts”

Stream Clean Up Program Summary

In partnership with Winooski NRCD, RRST completed a Stream Clean Up event in Williston on Sept 14, 2019. Eleven people attended and removed 15 bags of trash out of two tributaries to Muddy Brook. Most of the time spent on this event was covered by Winooski NRCD’s independent agreement with the Town of Williston. Some advertising time was charged to RRST and Stream Team tabling materials and shirts were shared with all participants on the day of the event. The cost to RRST was approximately 10 hours or **\$450**. Matching funds from WNRCD to fully execute the event were approximately \$3,500.



Figure 10: Volunteers at the Williston Stream Clean Up 9/14/19

Water Quality Monitoring Program Summary

RRST has maintained an ongoing water quality monitoring program since 2012. Citizen science volunteers take water samples in urban or suburban streams that are impacted by sedimentation, excessive nutrient loading, high temperatures, bacteria, and other pollution. This data provides information to towns about long term trends and may help towns identify good locations for stormwater BMPs.

With another year of support from VT DEC’s LaRosa program, RRST collected biweekly water quality samples at twenty-one sites on twelve streams in 2019. Twenty-one volunteers and one intern helped collect grab samples on five, biweekly Tuesdays from 6/25/19 - 8/20/19. Grab samples were analyzed for total phosphorus and chloride. These parameters were also sampled at five of the sites during one rain event. See



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the 2019 Water Quality Monitoring Report in Appendix A for more information.

The training day for citizen science samplers took place on 6/11/19 at Landry Park in Winooski. This year two sessions were offered (morning and evening) to accommodate volunteers' schedules. RRST coordinator demonstrated sampling procedures, described the data collection sheets and answered questions. Throughout the season, volunteers returned their samples to the WNRCD office after sampling, and the RRST coordinator ensured all samples were accounted for and delivered to the lab. A challenge this year was that the lab moved from Burlington to Randolph VT. RRST partnered with the Williston Conservation Commission (which takes weekly water samples) to share the cost of a courier service (Green Mountain Messenger) to deliver samples and bringing back supplies. Volunteers were recognized at the volunteer appreciation event in Williston on 9/18/19.

The RRST coordinator sent bi-weekly emails to WQ volunteers to check in about sampling procedure and share interesting local water tidbits, and other ways to get involved. The coordinator also joined volunteers in the field periodically to discuss technique or clarify site locations.

Cost: The total estimated cost to plan, manage, and implement this project was **\$3,650**. The approximate personnel time used to plan and execute the project was 80 hours (\$3,600). The mileage was about \$50. For match, the LaRosa grant offset approximately \$2,600 of lab analysis fees.

Municipality	Number of Volunteers
Essex & Essex Junction	3
Colchester	2
S. Burlington	7
Burlington	4
Williston	3
Shelburne	1
Hinesburg	1
TOTAL	21

Table 1: Stream Team Water Quality Sampling Volunteers by town



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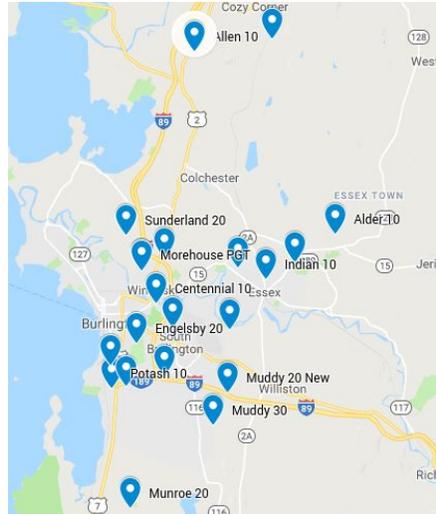


Figure 11: Map of Stream Team Sampling Sites 2019 *Link to Interactive Map:*
<https://drive.google.com/open?id=1K98F4bBO2E6p5ILKgSw7bxRSpOQzoo8Q&usp=sharing>



Figure 12: Stream Team volunteers learn sampling protocol at the evening training (6/11/19)



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Adopt-a Rain Garden Program Summary

The Stream Team's Adopt-a-Rain Garden program is an opportunity for individuals to assist in keeping Chittenden County's public rain gardens functional and attractive. This involves basic maintenance activities like picking up trash, pruning, pulling weeds, installing new mulch, and informing the coordinator of non-functioning gardens. There are currently ten public rain gardens managed by RRST. In 2018, there were four official adopters. In 2019, all ten gardens were cared for by various partners and volunteers. See table 2 for more details.

Signage: This year, with the help of Pluck, we rebranded the signs in all of the gardens with the new Rethink Runoff logo. A volunteer was recruited to assist with installing the signs.

Cost: The cost to manage and grow this program in 2019 was approximately 15 hours or **\$675** for staff time.

Garden Status Update

Callahan Park Rain Garden

Location: 45 Locust St., Burlington

This garden has been functioning well for some time thanks to efforts by Brad Ketterling, who has adopted this garden for several years. In 2017, Burlington Public Works brought a load of mulch to the garden and Brad spread the mulch and kept up with weeding and monitoring the garden. Several understory shrubs and flowers have been shaded out by larger, overstory plants that need to be thinned. There are several locations that also need to be replanted, so efforts will be made to locate surplus plants that can be added in 2020.

Chamberlain School

Location: 262 White Street, South Burlington

This garden was installed in partnership with WNRC and the Let it Rain Program in 2013. This is one of several rain gardens on the grounds of Chamberlain Elementary. School teacher Chris Provost adopted this garden again in 2019 and has actively maintained it for several years.

Coast Guard Station

Location: Depot Street, Burlington

This small garden is located in the parking lot abutting the bike path next to the Burlington Coast Guard Station. In 2014, RRST worked with the ECHO summer kids program to engage elementary school children in cleaning the garden and in 2015 a local resident, Wiley Reading, adopted the garden. The garden did not have an adopter from 2016-2018, but this garden got a "boost" of energy from 10 community volunteers through the Day in the Dirt event hosted by the Vermont Community Garden Network in spring of 2018. In 2019, it was adopted by Larry Kaupferman.

Farrell Park

Location: Swift Street, South Burlington

This garden is unique in terms of its design. It is called an "advanced wetland stormwater filter" and was installed in 2012. Stormwater enters the garden through an inlet, flows through the gravel wetland filter



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media, is cleaned and exits through the other end. The garden requires very little maintenance because it has a flushing system that prevents sediment from building up. This garden had an active adopter for its entire life, until 2015 when the adopter moved away. The garden was never in need of additional plants or maintenance. It would not be appropriate to add mulch to this garden. In 2019, this garden was adopted by the O'Leary family. They completed a work day weeding and clearing the inlet and plan to keep an eye on the garden.

Landry Park

Location: North St., Winooski

This garden was constructed in 2006 as two, separate gardens along the narrow strip of grass between a fence at Landry Park and the road. Over the years, the gardens have become overgrown, but Winooski DPW officials believe it still functions well, even with the tall, dense shrubs. A few years ago, nearby road construction altered the slope of the road carrying larger volumes of water into the garden. The increased flows have killed some of the vegetation and caused gullies to form, but the vegetation seems to have rebounded. In 2016, a group of UVM students in an Ecosystem Design course developed recommendations to repair the garden. In 2019, RRST coordinator spoke with Tim Grover and Jon Choate of Winooski DPW who agreed to take on responsibility for the garden.

Williston Town Hall Annex

Location: 7900 Williston Rd, Williston

This small garden near the entrance walkway to the Annex building and the parking lot has had an active adopter since 2014: Rita Desseau. Rita maintained the garden in 2018. In 2019, additional work done was weeding, thinning larger shrubs, re-planting in bare spots, and mulching the garden.

Williston Library (aka. Dorothy Alling Memorial Library)

Location: 21 Library Lane, Williston

The Williston Library garden is in good condition and is primarily being cared for by the staff of the library. This garden was previously cared for by Andrew Wolf.

South Burlington High School (formerly the location of the South Burlington Library)

540 Dorset St., South Burlington

WNRCDC received a grant to construct a rain garden at the entrance to what was the South Burlington Library (now South Burlington High School) in 2013. The rain garden received minimal maintenance by the library staff over the years, and was formally adopted in 2016 by Amy Niggel's Cub Scout 678 pack. The pack's leadership changed hands in 2018 and the new cubmaster Bill Kett agreed to continue maintenance of the garden with his pack. In 2019, scout parent Eric Bishop-vonWettberg took ownership of the garden stewardship program with the scouts. The RRST coordinator hosted an orientation and work day for a small group of scouts and leaders in spring 2019 and they have been keeping an eye on the garden ever since.

South Burlington Fire Department

575 Dorset St., South Burlington

The City of South Burlington installed this bioretention area/rain garden in 2015 to improve stormwater management at the Fire Department. Cub Scout pack 678 has volunteered to adopt this rain garden since



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2016. Since there is new leadership in the pack, the RRST coordinator hosted an orientation and work day for a small group of scouts and leaders in spring 2019 and they have been keeping an eye on the garden since.

Rain Garden	Adopter 2019	Notes
Chamberlin School, South Burlington	Chris Provost and students	Long-time volunteer
Coast Guard Station, Burlington	Larry Kupferman	New volunteer this year - met in the fall for an orientation
Landry Park, Winooski	Town of Winooski	Spoke with Tim Grover in spring about maintenance plan
Williston Annex	Rita Dresseau	Long-time volunteer
Williston Town Library	Library grounds staff	Spoke with library leadership in 2018. Next year plan to formalize and agreement.
Callahan Park, Burlington	Brad Ketterling	Long-time volunteer.
Farrell Park, South Burlington	Roan O'Leary	New volunteer this year - local high school student. Met for orientation and work day.
Department of Corrections, South Burlington	Town of S. Burlington	Spoke with Tom DiPietro in spring about town taking on responsibility.
South Burlington Fire Station	Cub Scouts 678 (Eric Bishop-vonWettberg)	Met with leaders and scouts in spring for a work day/orientation
South Burlington Library	Cub Scouts 678 (Eric Bishop-vonWettberg)	Met with leaders and scouts in spring for a work day/orientation

Table 2: 2019 Rain Garden Adopters



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Volunteer Appreciation Event Summary

2018 Appreciation Event

- In March 2019, we hosted a volunteer appreciation event for the previous year's volunteers. All rain garden adopters and water quality monitors from the 2018 field season were invited. Three people attended. A tour of the Essex Junction Wastewater Treatment Facility was given by Chelsea Mandigo and the RRST coordinator discussed the results of the 2019 season.

2019 Appreciation Event

- In September 2019, we hosted a volunteer appreciation event at CSWD Materials Recycling Facility in Williston for 2019 field season volunteers. The event was attended by 11 people. The tour was led by Lauren Layn, a Stream Team volunteer who also works for CSWD. Attendees provided positive feedback noting that they enjoy educational appreciation events and also enjoyed the breakfast spread.



Figure 13: Volunteers tour the Essex Junction Wastewater Treatment Facility as part of the 2018 volunteer appreciation event. (3/20/19)



Figure 14: Volunteers enjoy breakfast and tour the CSWD Materials Recycling Facility as part of the 2019 volunteer appreciation event. (9/18/19)



RRST Estimated Impact by Municipality

The table below depicts an estimate of the number of individuals engaged in-person in each RRST municipality in 2019.

Town	# of people reached in-person in 2019
Burlington (Project)	78
Colchester (Outreach)	42
Town of Essex (Outreach)	18
Village of Essex Junction (Outreach)	67
Milton (Project)	10
Shelburne (Project)	163
Williston	28
South Burlington	43
Winooski	0
TOTAL	449

Table 3: Interaction with RRST by member town. Note that although no residents in Winooski were directly reached with programming this year, two storm drain murals are still highly visible in the city.



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Appendix A: Clean Water Reading List

Rethink Runoff Stream Team Clean Water Reading List			
<p>This list was developed by the Rethink Runoff Stream Team (RRST). RRST is a stormwater education campaign managed by the Chittenden County Regional Planning Commission and run by the Winooski Natural Resources Conservation District. RRST offers community outreach, volunteer opportunities, workshops, and events in the municipalities of: Burlington, Colchester, Essex, Essex Junction, Milton, Shelburne, South Burlington, Williston & Winooski. If you would like to use this list please display the following text "This list was created by Rethink Runoff Stream team in collaboration with the Lake Champlain Basin Program Resource Library." If you are located in one of the nine municipalities we serve we may be able to run a clean water workshop or activity hour for adults or kids for free and/or loan items to you (like water sampling vials and informational brochures) for a display. Contact kristen@winooskinrcd.org for more information.</p>			
Title	Author	Category	Source of Recommendation
A Drop of Water	Walter Wick	Adult	LCBP Resource Library at Echo
Disconnected Rivers: Linking Rivers to Landscapes	Ellen Wohl	Adult	Brownell Librarians
In the Land of the Wild Onion: Travels Along Vermont's Winooski River	Charles Fish	Adult	LCBP Resource Library at Echo
Lake Champlain: A Natural History	Mike Winslow	Adult	LCBP Resource Library at Echo
One Life At A Time Please	Edward Abbey	Adult	Stream Team: James Sherard
Paddler's Guide to the Champlain Valley : Exploring the Rivers, Creeks, Wetland and Ponds	Margret Holden	Adult	Kristen Balschunat: Stream Team
Round River	Aldo Leopold	Adult	Stream Team: James Sherard
Snow Crystals	WA Bentley	Adult	LCBP Resource Library at Echo
The Art of Lake Champlain: Inspiring Landscape	Unknown	Adult	LCBP Resource Library at Echo
The Death & Life of the Great Lakes	Dan Egan	Adult	Stream Team: Chelsea Mandigo
The Water Between: A Photographic Celebration of Lake Champlain		Adult	LCBP Resource Library at Echo
Vernal Pools: Natural History and Conservation	Elizabeth A. Colburn	Adult	Brownell Librarians
Water: A Natural History	Alice Outwater	Adult	Stream Team: Tom DiPietro
Watersheds: A Practical Handbook for Healthy Water	Clive Dobson	Adult	LCBP Resource Library at Echo
Wetland, Woodland, Wildland: A Guide to the Natural Communities of Vermont	Elizabeth H. Thompson	Adult	Stream Team: Kristen Balschunat



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Around the Pond: Who's Been Here?	Lindsay Barrett George	Childrens	LCBP Resource Library at Echo
Champ and me by the Maple Tree	Ed Shankman	Childrens	LCBP Resource Library at Echo
Dwayne the Storm Drain	Mass. Water Professionals	Childrens	Stream Team: Chelsea Mandigo
From Raindrop to Tap	Michael Bright	Childrens	Brownell Librarians
Muskrat will be Swimming	Cheryl Savageau	Childrens	LCBP Resource Library at Echo
Over and Under the Pond	Kate Messner	Childrens	LCBP Resource Library at Echo
Raccoon's Last Race	Joseph Bruchac and James Bruchac	Childrens	LCBP Resource Library at Echo
Song of the Water Boatman and Other Poems	Joyce Sidman	Childrens	LCBP Resource Library at Echo
Thirteen Moons on the Turtle's Back	Joseph Bruchac and Jonathan London	Childrens	LCBP Resource Library at Echo
Trout are Made of Trees	April Pulley Sayre	Childrens	LCBP Resource Library at Echo
Water: Up, Down, and All Around	Natalie M. Rosinsky	Childrens	LCBP Resource Library at Echo
Hatchet & The River	Gary Paulsen	Young Adult	Stream Team: James Sherard



This document was prepared by the Winooski Natural Resources Conservation District, who is contracted by Chittenden County's MS4 Committee to run the RRST program.