

RRST Work Plan 2019 (calendar year)												
TASKS	DESCRIPTION	TASK/DELIVERABLE	TIMEFRAME	MEASURES OF SUCCESS	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Target Deliverable	2019 Tracking Column
Ongoing Tasks												
Quarterly reports and Annual Summaries	Prepare reports and summaries for review by committee	<ul style="list-style-type: none">Develop annual reportSubmit monthly status reports and invoicesSend monthly email updates to co-chairs	Annual Report due in March Status Updates due every quarter (Jan, Apr, Jul, Oct) Email updates last day of each month	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1 Annual Report 12 Status updates 12 Invoices	1 Annual Report Delivered in February 12 Status Updates 12 Invoices
Steering Committee (MS4)Meetings	Prepare information and attend regular meetings	<ul style="list-style-type: none">Attend meetings with well-prepared information	January, April, July, October	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7 MS4 meetings attended (Jan, Feb, March, April, May, July, Sept)
Expense Tracking	Track all expenses by maintaining simple accounting system	<ul style="list-style-type: none">Submit expense tracking report with every status report	Due every quarter	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Expense tracking completed with each report
Communication with CCRPC and Partners	Keep in regular communication with partners on progress	<ul style="list-style-type: none">Provide updates on progress of initiatives via meetings or email once a month	Ongoing	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Complete
Increase Revenue	Solicit and secure in-kind or cash donations from individuals, businesses, and non-member towns	<ul style="list-style-type: none">Corporate SponsorsAssociate membersIndividual Donations	By December 31st, 2019	Donation received	\$500 in plants and signs	\$300 in plants and RB cleaning supplies	\$0	+\$100 wood chips donated by S. Burl HS	+\$515 Compost bin, compost, seeds, plants	\$0	n/a	No direct donations were made to RRST, but the LaRosa grant was valued at \$2,600 and WNRCD Stream Clean Up grant was worth ~\$3,500
Media Coverage	Increase media coverage of Stream Team happenings via local media outlets	<ul style="list-style-type: none">Inform local media prior to any activity within a townPost volunteer ops on media calendars	Ongoing	Independent News Pieces (articles, TV stories, published photos etc.)	3	4	6	9	6	6	6	7 See annual report
Promotional Item Development	In collaboration with media partner, develop additional maps and flyers to be distributed in focus areas to increase interest of residents	<ul style="list-style-type: none">Develop program brochures/rack cards for water monitoring program, adopt-a-rain garden program, stream clean ups events, and rain barrel workshops	December 31, 2019	Promo Items Developed	0	7	4	3	6	3	n/a	6 In collaboration with Pluck Design, in April we developed and printed: 500 rack cards (one on volunteering with the Stream Team, one on Lake-Friendly lifestyle changes), 200 seed cards, 1 tablecloth, 1 standing sign. 1 Poster for Rain Barrel workshop
Promotional Item Giveaway	Hand out promotional items at events. Promotional items include rack cards, brochures, t-shirts and stickers.	<ul style="list-style-type: none">Hand out at least 300 RRST promotional items	December 31, 2019	# of Promo Items Handed Out	Not measured	Not measured	Not measured	Not measured	Not measured	Not measured	300	200 stickers 100 rack cards 20 seed cards 10 shirts 330 Total
Partnership Development	Foster partnerships with organizations and groups to increase program and event success.	<ul style="list-style-type: none">Develop successful partnership with at least twelve non-municipal organizations or groups on one more projects	By December 31st, 2019	Number of non-municipal organizations partnered with	5	12	9	14	11	18	12	11 See annual report for details
Outreach												

Website, Facebook, and Instagram	Keep Website, Facebook page, and Instagram populated with updated information, photos and ways to get involved	<ul style="list-style-type: none">● Biweekly information addition – photo, volunteer opportunity, upcoming events etc.● Targeted marketing of online pages at outreach events	Ongoing	Website Sessions (Google Analytics)	801	1454	1773	1281	6,549	To be submitted by Dave	5000	To be submitted by Dave
				Total FB “Likes”	83	104	114	152	177	219	250	254
CCST Mailchimp Updates	Continue to send regular updates of CCST happenings via email mailing list	<ul style="list-style-type: none">● Send quarterly mailing updates; biannual newsletters	Ongoing; June and December	Total Mailing List	261	290	459	426	467	512	500	# subscribers: 629 Newsletters sent in ☑February ☑July ☑ November
Outreach Events	Provide presence at community events to share CCST information to a broad audience. Focus on populations with low participation numbers from previous years. Outreach activities should generally occur in the fall in preparation for spring implementation.	<ul style="list-style-type: none">● Attend or organize a minimum of 3 outreach events within outreach area<ul style="list-style-type: none">○ Colchester○ Essex○ Essex Junction	Total (Outreach & Project Events)	Total number of people reached in person	n/a	n/a	n/a	56	383	467	400	449
			Colchester Event: Community Dinner 3/4/19	# reached in Colchester	n/a	n/a	n/a	n/a	n/a	n/a	20	25
			Essex Event: Mini Rain Barrel Workshop	# reached in Essex	n/a	n/a	n/a	n/a	n/a	n/a	20	10 Essex Middle School Mini Rain Barrel Workshop
			Essex Junction Event: Tabling and Kid’s Activity hour at Brownell Library	# reached in Essex Junction	n/a	n/a	n/a	n/a	n/a	n/a	20	43
			Events in other Municipalities: Conservation Field Day & Shelburne Community School Lesson	# reached in other munis	n/a	n/a	n/a	n/a	n/a	n/a	20	210 Conservation Field Day (S. Burlington: 15, Colchester: 15, Burlington: 15, Essex Junction: 15, Total: 60) Shelburne Community School Lesson (100), Shelburne Harvest Fest (Burlington: 10, S. Burlington: 10, Shelburne: 20, Essex: 5, Essex Junction: 5)
Event-driven Tasks (Program & Project Implementation)												
Stormwater Project/Program ming	Complete projects in three towns. Focus on towns that were targeted for outreach in the previous year.	<ul style="list-style-type: none">● Burlington Project: Rain Barrel workshop and downtown display● Shelburne Project: Stormdrain Mural and Taught Lesson at Shelburne Community School● Milton Project: TBD	Total # Projects	Total number of projects or events	5	11	8	7	5	5	3	6 Burlington, Shelburne, Milton, Allen Brook Riparian Stewardship, Williston Stream Clean Up, Essex Mini Rain Barrel Workshop
			Total # volunteers and/or participants	Volunteers or Participants (Total)	159	254	188	441	250	98	100	Total: 139 Subtotal (volunteers) :86
			Rain Barrel workshop	Burlington Participants	n/a	n/a	n/a	n/a	n/a	n/a	15	47 workshop participants
			Shelburne Mural Project	Shelburne Participants	n/a	n/a	n/a	n/a	n/a	n/a	15	42 mural participants
			Milton Mural Project	Milton Participants	n/a	n/a	n/a	n/a	n/a	n/a	15	10 mural participants

Adopt a Rain Garden Programming	Match volunteers with public rain gardens in need of care	<ul style="list-style-type: none"> Signed agreements between RRST and adopters to care for rain gardens 	Ongoing	Gardens Adopted	9	9	8	6	5	6	10	10
Water Quality Sampling	Continue projects to engage community members in water quality sampling	<ul style="list-style-type: none"> Maintain and/or expand sampling sites on various streams in participating towns 	Ongoing	# of WQ volunteers (metric before 2019 was # of sites)	14 sites	13 sites	14 sites	15 sites	18 sites	23 sites, 13 volunteers	10	21 sites, 21 volunteers
Stream Clean Ups		<ul style="list-style-type: none"> Identify school groups/volunteers to carry out tree planting/stream clean during Stream Clean Up Month in September 	By September 30th, 2019	Volunteers Total	n/a	n/a	n/a	35	0	0	20	11 See annual report for details
Volunteer-lead Activity	Encourage volunteers to take ownership of a task	<ul style="list-style-type: none"> Acquire at least one intern to assist with RRST tasks 	By December 31st, 2019	Volunteer coordinated event-tabling or stream clean-up	0	0	1	2	1	2	1	2 WNRCD summer intern, Riley Groll and WNRCD communications intern Caitlin Maloney
Volunteer Appreciation Event	Recognize outstanding Stream Team volunteers at an award ceremony	<ul style="list-style-type: none"> Host an event with certificates to thank our volunteers 	By November 30th, 2019	Event held with attendance from 10 recognized volunteers	0	1	1	1	1	0*	1	2 Held event at Essex WWTP in spring 2019 (for 2018 volunteers). Held event for 2019 volunteers in September at the CSWD MRF in Williston

			By December 31st, 2020	Total FB “Likes”	83	104	114	152	177	219	254	275
CCST Mailchimp Updates	Continue to send regular updates of CCST happenings via email mailing list	<ul style="list-style-type: none">Send quarterly mailing updates	Ongoing	Total Mailing List	261	290	459	426	467	512	629	# subscribers: 650 # newsletters: 4
Outreach Events	Provide presence at community events to share CCST information to a broad audience.	<ul style="list-style-type: none">Attend or organize a minimum of 3 outreach events within outreach area:<ul style="list-style-type: none">WillistonWinooskiS. Burlington	Williston Outreach Event	# reached in Colchester	n/a	n/a	n/a	n/a	n/a	n/a	n/a	20
			Winooski Outreach Event	# reached in Essex	n/a	n/a	n/a	n/a	n/a	n/a	n/a	20
			S. Burlington Outreach Event	# reached in Essex Junction	n/a	n/a	n/a	n/a	n/a	n/a	n/a	20
			Outreach events in other municipalities	# reached in other munis	n/a	n/a	n/a	n/a	n/a	n/a	150	40
Event-driven Tasks (Program & Project Implementation)												
Stormwater Project/Program ming	Complete projects in three towns. Focus on towns that were targeted for outreach in the previous year.	<ul style="list-style-type: none">Essex Event: Rain barrel workshopEssex Junction Event: Stream Clean Up or Fall Kick-Off event for Adopt a Storm Drain pilot projectColchester Event: Storm Drain Stencil collaboration with local scout troop & October tree planting at Macrae Farm Park with WNRCD	Total # Projects	Total number of projects or events	5	11	8	7	5	5	6	3
			Essex Event	# of participants	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15
			Essex Junction Event	# of participants	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15
			Colchester Event	# of participants	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15
			Projects in other municipalities	# of participants	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0
Adopt a Rain Garden Programming	Match volunteers with public rain gardens in need of care	<ul style="list-style-type: none">Agreements between RRST and adopters to care for rain gardens	Ongoing	Gardens Adopted	9	9	8	6	5	6	10	10
Water Quality Sampling	Continue projects to engage community members in water quality sampling	<ul style="list-style-type: none">Apply for LaRosa grant to cover lab analysis costs, visit sites to assess the safety and suitability, recruit volunteers, coordinate sampling logistics, write analysis report.	Ongoing	# of WQ volunteers	14 sites	13 sites	14 sites	15 sites	18 sites	23 sites, 13 volunte ers	21 sites, 21 volunte ers	20 volunteers
Volunteer-lead Activity	Encourage volunteers to take ownership of a task	<ul style="list-style-type: none">Mentor at least one volunteer to assist with an outreach project	By December 31st, 2020	# of volunteers	0	0	1	2	1	2	2	1
Volunteer Appreciation Event	Recognize outstanding Stream Team volunteers at an award ceremony	<ul style="list-style-type: none">Host an event to thank our volunteers	By November 30th, 2020	3 of events held	0	1	1	1	1	0*	2	1
Hands-on Community Engagement	Record the total number of people who participated in a workshop or volunteered for an RRST event	<ul style="list-style-type: none">Include only projects, workshops and volunteer events	Total # volunteers and/or workshop participants	# of volunteers and participants	159	254	188	441	250	98	139	100
Total Reach	Record the total number of people reached in person through RRST	<ul style="list-style-type: none">Include all activities including outreach, projects, wq monitors, rain garden volunteers, etc.	By December 31st, 2020	Total number of people reached in person	n/a	n/a	n/a	56	383	467	449	450

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 VAEI 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):** WNRCDC 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”

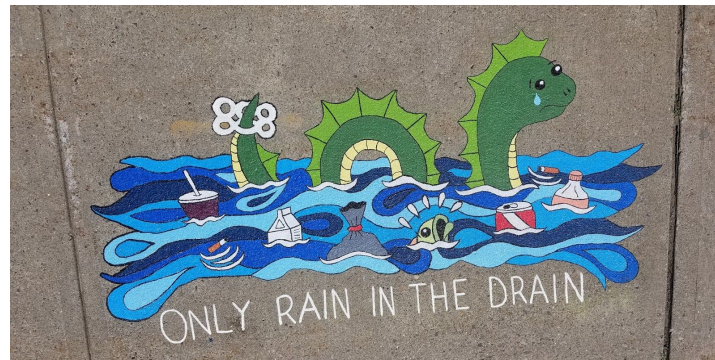


Figure 5: Artist Erin Schmitt paints her mural of Champ on Center Drive between Kinney Drugs and VT Federal Credit Union (7/29/19) Text says: “Only Rain in the Drain”



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 WNRCDC 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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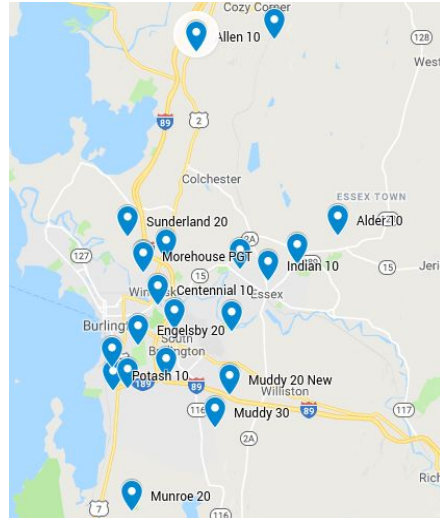


Figure 11: Map of Stream Team Sampling Sites 2019 *Link to Interactive Map:*
<https://drive.google.com/open?id=1K98F4bBO2E6p5ILKgSw7bxRSpQlZoo8Q&usp=sharing>



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 RRSST. 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, RRSST 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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