



City of Burlington Stormwater Management Program
MS4 Annual Report for Calendar Year 2013

In accordance with State of Vermont permit 7022-9014 issued to the City of Burlington on October 1, 2013, we are submitting the following annual report documenting stormwater activities completed in calendar year 2013.

1) Minimum Measure 1- Public Education and Outreach

- Total Payment made to RSEP: \$5,000
- Total Media Impressions:
 - Unpaid impressions: 43,800
 - Paid Media impressions: 1,440,046
- # visitors to the Regional Stormwater Education Program (RSEP) website: 3645
 - RSEP web address: www.smartwaterways.org
- Maintenance of municipality's stormwater website
 - <http://www.burlingtonvt.gov/DPW/Stormwater-Management>
 - New pages added to the website to share information about current and past projects
 - Addition of Stormwater Friendly Driveway Fact sheets: <http://bit.ly/1hWHYo5>
 - Addition of Stormwater Friendly Driveway StoryMap: <http://bit.ly/1aIFNI0>
 - Google analytics set up to track website visitors from April 2014 onwards
- Supplemental information for minimum measure 1 can be found in Appendix A (RSEP Executive Summary)

2) Minimum Measure 2 – Public Involvement and Participation

- Payment made to the Chittenden County Stream Team (CCST): \$1800
 - CCST website address: <http://www.ccstreamteam.org>
 - Participation: 157 total participants (15 participants from Burlington)
- Coordination for "Connection the Drops" on College Street <http://letitrainvt.org/connecting-the-drops/>
- Green Up Day
 - Tons of Trash collected: 2.7 tons
 - # of tires collected in Burlington (with help from Noyes Tires): 1339 tires
 - # of participants: 587
- CEDO interns compiled information from other U.S. Municipalities related to "Adopt-A-Drain" programs
 - Adopt a Drain Programs engage citizens in cleaning off the tops of catch-basins to prevent clogging and notifying the City if catch basin become full and need cleaning
- Supplemental information for minimum measure 2 can be found in Appendix B (CCST Annual Report)

3) Minimum Measure 3 – Illicit Discharge Detection and Elimination

- Illicit discharges detected and eliminated: 1 informal CSO to MS4
 - During a Parks and Rec facilities project at Callahan Park (Locust Street), the WW Division was asked to determine the elevation of an existing sewer-line. As part of this effort, City employees opened a manhole which mapping showed to have a stormwater and sewer line passing through it. Upon opening the manhole they discovered a T fitting on the sanitary sewer line, which was allowing combined sewer overflow (when the 15" combined sewer line surcharged) to the storm system discharging at the outfall at Burlington Electric Department which discharges to the Pine Barge Canal (via a "wetland" system) and eventually to Lake Champlain.
 - The pipe was plugged immediately and the informal CSO has been eliminated.
 - In response to this discovery, City staff are examining historical mapping and updated mapping to ensure that these sorts of "informal" CSOs are addressed.
- Number of stormwater outfalls inspected: 0 (2013 focus was on infrastructure mapping; first round of inspections will occur in 2014)
- Number of stormwater outfalls sampled/tested: 0 (2013 focus was on infrastructure mapping; first round of inspections will occur in 2014)
 - Due to recent information regarding possible false negatives with optical brightener testing (many laundry detergents no longer contain OBs) we will be re-evaluating our illicit discharge detection strategy prior to testing outfalls in 2014
- Stormwater Infrastructure Mapping
 - Stormwater and GIS Technician hired October 2013
 - Completing QA/QC of GIS Update
 - Draft sub-watersheds have been delineated using Arc GIS network tracing
 - Continuing to locate and update additional outfall locations
 - Draft Sewer Mapping Data (with attributes) available via online map at: bit.ly/1dLYsDR
 - In 2014 we will be working to publish additional attribute information such inspection information for outfalls, catch basins etc.
- Hot Spot Surveys completed: 1, for College Street Watershed
 - Hot Spot (restaurants, dumpster owners) businesses in College Street Watershed received letter regarding best management practices
- A regulatory review related to addressing the specific categories of illicit discharges specified in 3-9014 (2012) has been completed; an update to Chapter 26 (Wastewater, Stormwater and Pollution Control ordinance) to include these additional categories is pending other likely changes to Chapter 26 in 2014 (possible update in post construction stormwater management standards, credit manual requirements, etc.).

4) Minimum Measure 4 – Construction Site Runoff Control

- Number of project EPSCs reviewed: 57
- Number of construction site inspections: 4

5) Minimum Measure 5 – Post Construction Runoff Control

- Number of project stormwater management plans reviewed: 12
- Number of small stormwater management systems (no State permit) inspected: 0
- Number of public stormwater management systems inspected: 11
- Development/implementation of maintenance agreement/easement recording process: postponed until 2014
- City Projects related to Post Construction Runoff Control in MS4
 - College Street Stormwater Watershed Retrofit Study; see: <http://www.burlingtonvt.gov/DPW/Stormwater/Projects>
 - Stormwater Friendly Driveway Fact Sheets; see: <http://bit.ly/1hWHYo5>

6) Minimum Measure 6 – Pollution Prevention and Good Housekeeping

- # of catch basins inspected: 408¹
- # of catch basins cleaned: 373
- # of manholes inspected: 53
- # of manholes cleaned: 44
- # of storm lines cleaned: 19 (will try to capture in linear feet for 2014)
- # of catch basins repaired: 30
- # lane miles swept (at least once annually during Operation Clean Sweep): 96
- # of dog bags distributed: approximately 11,000
- # of tons of material collected by street sweeping and catch basin cleaning: 577 tons
- MCAP Audit completed: no (last done in 2008, will occur again this permit cycle)
- Number of municipal employees attending annual RSEP training (date): 2
- Additional Trainings attended by stormwater staff:
 - AWSPs – Smart Retrofitting 3/13/2013
 - Combining Green and Gray in Combined Sewer Watersheds (9/18/2013)
 - Asset Management Webinar (9/10/2013)
 - WEFTEC, Chicago, October 5 – October 9; including workshop on using LID module in SWMM
- Municipal Projects:
 - 30 catch basin
 - Completion of 2 outfall repair projects
 - Sediment removal from BED outfall
 - Lining of Dale Road and Crescent Beach corrugated metal outfall pipes

¹ Catchbasin cleaning and street sweeping was greatly reduced in 2013 due to re-allocation of staff resources to repair of various infrastructure challenges resulting from the extreme spring/early summer storms

7) Other Stormwater Activities and Reporting

- FY 13 Stormwater Budget Actual Expenses: \$781,574
- FY 14 Stormwater Budget Proposed Expenses: \$1,033,195
- Stormwater ISU rate increase from \$1.17 to \$1.687 (effective January 1, 2014) approved by City Council June 2013 (see: <http://www.burlingtonvt.gov/DPW/Billing>)

8) Flow Restoration Plan (FRP) Development Progress

- The City of Burlington is required to participate in the development of three FRPs for discharges from the City to Centennial Brook, Englesby Brook and Potash Brook. The City intends to work with other MS4s to develop these FRPs and submit to the State prior to October 1, 2016.
 - Centennial Brook FRP: The City began work with UVM, VTRANS and South Burlington on the FRP for Centennial Brook in 2013. Stormwater retrofits have been identified throughout the watershed and the draft plan has been presented to the State for review. The City and other MS4s must still prepare a financial and implementation plan.
 - Englesby Brook FRP: The City has received a \$63,249 LTF grant through VTRANS for the development of the Englesby Brook FRP. The City anticipates working with South Burlington for the small portion of South Burlington that drains to the Englesby. We anticipate the following initial schedule for Englesby FRP development:
 - May 2, 2014: Publication of RFP
 - June 23, 2014: All local approvals for contract execution completed
 - June 30, 2014 – April 30, 2015: FRP Phase I: Identification of required controls to achieve the necessary flow restoration targets
 - Potash Brook FRP: The City has not yet begun work on the FRP for Potash Brook watershed. We anticipate cooperating with South Burlington's larger Potash FRP effort which is anticipated to begin in late 2014.

9) Flow Monitoring Progress

- We are currently adhering to the plan previously submitted on January 2, 2014 (see Appendix C). We are awaiting the final passage of Bill H.650 which will allow the State to collect funds from the MS4s to directly manage the flow monitoring program. This remains our preferred method of implementation of flow monitoring. If Bill H.650 does not pass the Legislature, we will pursue the other means listed in our January 2, 2014 letter.

10) Expired Permits Progress

- We have reviewed the list of expired permits in the impaired watersheds (see Appendix D) and do not currently anticipate petitioning the State to residually designate these discharges, but rather will likely absorb them into our MS4 permit in exchange for maximizing stormwater management opportunities

on their properties.² We will be reviewing opportunities for maximizing stormwater mitigation on these properties during the respective Flow Restoration Plan Studies and will endeavor to make any final decisions regarding RDA petitions by April 1, 2015. We propose the following initial steps for addressing the Expired Permits in our community:

- May 2014: Contact expired permit holders and notify them of requirement to submit a plan for obtaining valid permit coverage by October 15, 2015; encourage participation with the Flow Restoration Plan.
 - Obtain MOUs of intended cooperation
 - Ascertain willingness to cooperate; if any are immediately unwilling, consider immediate RDA petition to State
- June 2014: Confirm discharge locations for expired permits to verify discharges to the MS4 vs. directly to impaired watershed
- June 30, 2014 – April 30, 2015:: Include expired permit properties Flow Restoration Plan (see above)
 - Advance legal measures to allow for transfer of permit responsibility to MS4
 - Obtain MOUs for transfer of permit responsibility to MS4
 - December 31, 2014: Deadline for approval of any regulatory changes by the Burlington City Council as needed to allow for transfer of permit coverage to the City's MS4 permit
- September 1, 2015: Deadline for any RDA petitions
- October 1, 2015: Expired permits will either be identified as subject to a NPDES RDA permit or will be incorporated into the City's MS4 permit coverage.

11) Future Plans For Permit Year 2014

- Enhance street sweeping on select streets
- Inspection and IDDE of a minimum of 40 stormwater outfalls
- Implement an Adopt-A-Drain program to encourage citizens to remove debris from the tops of catch basins and report full sumps.
- Begin Flow Restoration Plan efforts for Englesby and Centennial Brooks
- Return catch basin cleaning totals to minimum of 850 catch basins
- Delineate subwatershed boundaries for outfalls to the impaired watersheds
- Complete Hot Spot surveys for areas of the impaired watersheds within the Burlington City boundary
- Pursue regulatory changes to Chapter 26 related to the specific illicit discharges listed in the 2012 MS4 permit and to the transfer of permit responsibility for expired permits in the impaired watersheds
- Review Parks & Rec Department policies related to P- fertilizer
- Development of maintenance easement/access agreement for locally approved stormwater management plans

² If all or portions of these properties discharge directly to the impaired water and not to the MS4, we may not be able to legally require participation in the Flow Restoration Plan. This caveat will be evaluated early in the FRP process our remaining FRPs for Englesby and Potash. We may not legally be able to require participation in the Flow Restoration Plan for portions of these properties which may discharge directly to the impaired waters.

- Increase # of corrugated metal pipes video inspected
- Review and update of salt use/application protocols to minimize impacts of chlorides
- Mapping of all municipal parking facilities
- Develop and implement a "general" EPSC plan for typical municipal construction projects
- Minimum of 1 EPSC training session for DPW employees

12) Proposed Changes

- There are no changes proposed to the SWMP at this time. We anticipate changes related to Stream Flow Monitoring (see section 9 of this report) in 2014.

Certifications:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



4/1/2014

Megan Moir, CPESC, CPSWQ,
Stormwater Program Manager

Date Signed

APPENDIX A :
RSEP EXECUTIVE SUMMARY

**Chittenden County Regional Stormwater Educational Program
Annual Review: 2013- 2014 Program Year Summary**

The 2013-2014 program year (March 1, 2013 through February 28, 2014) has been a transition year for the Regional Stormwater Education Program (RSEP). *Marketing Partners, Inc.* of Burlington, the Program's contract marketing firm since its inception was retained through June 2013. A new marketing agency, *J. Andrews Marketing* was retained starting in August of 2013. The MS-4s worked with *J. Andrews Marketing* to analyze the results of RSEP's 5 year survey led the RSEP to decline to initiate a Fall 2013 campaign and instead take the time to plan for and begin to implement revisions to the program. To continue outreach efforts, the RSEP helped to co-sponsor the Let it Rain Program's, "Connecting the Drops" rain barrel exhibit which received significant media attention.

Key messages of the campaign remained the same and included stormwater runoff and stormwater systems education, and tips on prevention methods related to fertilizers and chemicals. The focus of the spring advertising campaign was to reduce fertilizer use and runoff through the use of soil testing to determine if fertilizer was needed.

Completion of replicate survey to gauge Program effectiveness The RSEP again hired UVM's Center for Rural Studies to implement RSEP's survey in July 2013 which takes place every 5 years so as to measure program effectiveness. 3,444 households in the nine RSEP municipalities were contacted via phone with 449 of those completing the survey. The results were similar to those obtained in 2008 with notable differences as follows:

- Many more people believe that stormwater that runs across their driveway is absorbed into the ground.
- There has been an increase in people who have tested their soil (though there is room for many more to join them). More educated people are more likely to soil test.
- There has been a significant drop in people who fertilize. However, of those that do fertilize, they are doing so multiple times per year. Our core demographics are the biggest offenders (35-64 year olds, homeowners) with one exception- less educated people tend to be "multiple fertilizers" more often than their educated counterparts.
- Significantly fewer people say that the downspout from their gutters lands on the lawn.

Spring Advertising Campaign The media campaign included four weeks of radio spots on VPR, WCPV, WEAV and WEZF; four weeks of cable TV spots in the Chittenden County area on the following channels (ESPN, TNT, HGTV, TLC & TWC; print ads in member community newspapers; and four weeks of advertising on Front Porch Forum (an opt-in community e-newsletter). The spring 2013 media expenditure totaled \$20,000 approximately the same level of spending as both the spring of 2012 and the spring of 2011.

Extension of the "Soil Test" campaign In partnership with the University of Vermont (UVM) Agricultural Testing Lab, the RSEP continued to provide the opportunity for residents with the MS4 area to obtain a free soil test. The ad campaign drove people to the RSEP website where 294 eligible program residents downloaded a printable coupon during this program year compared to 226 in the prior program year. UVM continues to track the number of coupons actually redeemed during paid media campaigns. 43 tests were submitted in 2013-2014 compared to 39 tests in 2012-2013 and 36 tests in 2011-2012. Overall visits to the "soil test" page ("page views" remained stable at 795 visits in 2013-2014 compared to 803 in 2012-2013.

Sponsorship of complementary efforts Through a contribution of \$12,500 RSEP became a chief sponsor of the Let it Rain Stormwater Program's "Connecting the Drops" rain barrel exhibit. This project identified the problem of limited public awareness of the issues of stormwater pollution and proposed methods to link this serious message with a fun and engaging outdoor art exhibit in the summer of 2013. The exhibit consisted of nineteen professionally painted rain barrels installed on pedestrian ways in downtown Burlington; Weekly concerts on Church Street throughout July (logo on signage, information at event booth, barrel giveaways, announcement from stage); Frog Hollow Signage (logo placement); Extensive print media campaign in *Seven Days* and *Kids VT* (logo placement); Signage and exhibit space at ECHO museum (logo placement) and South End Art Hop Auction Event (logo placement, barrel giveaway and auction, event speech, auctioneer recognition). In order to track the efficacy of the barrel in reaching residents of MS-4s towns, each barrel was fitted with a sign with the RSEP logo and stating "Win your own rain barrel: Scan here to sign up" and a QR code. A total of 811 visits to the project's website came via these QR scans on the barrels. 202 of those who scanned answered the prompted question of where they lived and 136 of those (63%) came from an RSEP member community. Through this QR signage and other events, 507 people signed up to try and win a free rain barrel. The project (and RSEP as a sponsor) also received significant exposure in the form of visitors and passers-by of the tabling event and sponsored music performers on Church Street (which has over 1.5 million summer visitors annually). The Let it Rain Program estimated 150 people attended each event with approximately 15 mailing list sign ups during each of the seven weeks. Last, it should be noted that RSEP included a link to the project on smartwaterways.org. Of the total summer traffic of 3,187 visits to the project website, 664 of those came from smartwaterways.org. The project as a whole received extensive media coverage (eight independent news stories).

Increased website traffic As detailed below, unique visits grew substantially to the Program's website, www.smartwaterways.org

Gross Impressions / Audience Reach

1. Unpaid Media (Public Relations) Fall PR Campaign

Instead of a fall paid advertising campaign, J Andrews Marketing and CCRPC did support a press outreach campaign with the goal of educating the press about RSEP and its initiatives. A template editorial was developed which was then adapted by individual MS4 and published as follows:

Editorials ran:

- The Other Paper, South Burlington, Circulation: 9,800
(<http://edition.pagesuite-professional.co.uk//launch.aspx?eid=3f9dfe35-2c0e-43ca-a0fd-587daa321e18>)
- The Williston Observer, Circulation: 5,000
(<http://www.willistonobserver.com/guest-column-communities-work-together-to-improve-water-quality/>)
- The Essex Reporter (not available online) Circulation: 8,800
<http://www.essexjunction.org/news/item/communities-work-together-to-improve-water-quality/>
- The Colchester Sun (not available online) Circulation: 6,200 and published in Colchester School District "Spotlight" online news
<http://csdspotlight.org/2013/12/>
- Front Porch Forum in South Burlington, Williston, Essex, Colchester. Approximately 14,000 impressions
- Total unpaid impressions for editorial campaign: 43,800

Prepared by J Andrews Marketing and Chittenden County RPC

In addition, editorial meetings were conducted with: Michael Page, Fox 44/ABC 22; Taylor Dobbs, Vermont Public Radio and Kathryn Flagg, Seven Days (Circulation: 33,417). These meetings resulted in specific ideas for stories that the reporters are interested in covering in the future, likely in Spring and/or Summer 2014.

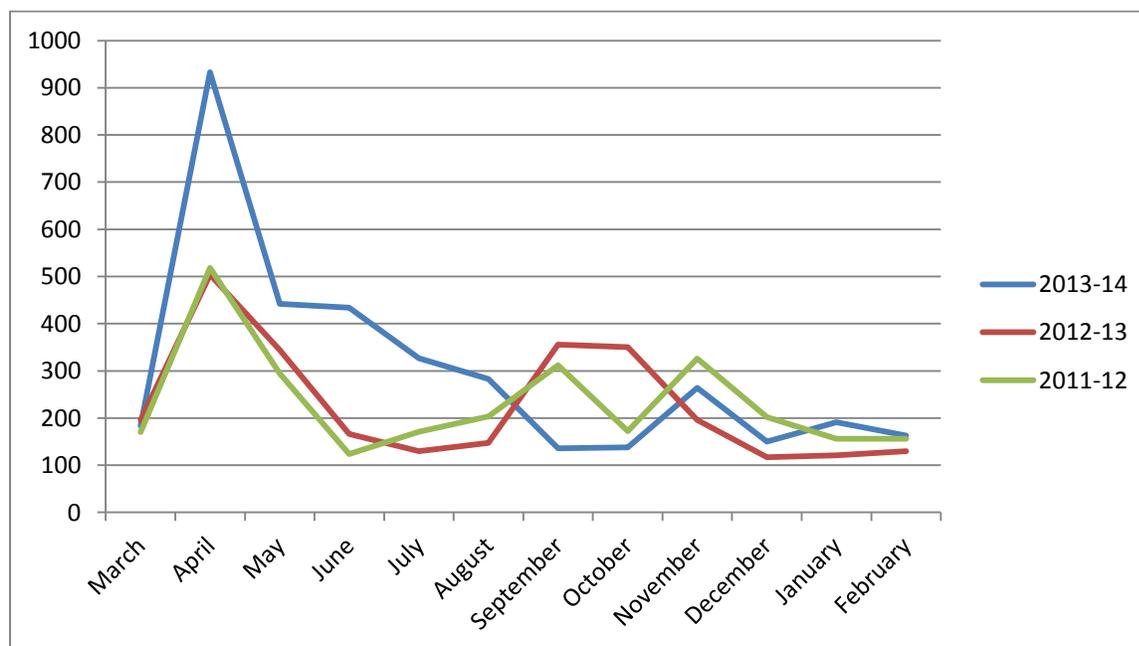
2. Total Paid Media Impression, 2013 (Spring Campaign only)

The 2013-2014 paid media budget was only \$20,000 and was focused only on the spring compared to RSEP's usual pattern of a \$20,000 spring buy and a \$10,000 early fall buy. In addition to maintaining advertising in the usual commercial outlets of cable TV, radio and local print, RSEP again advertised through online sponsorships via Front Porch Forum. Overall, impressions were down to 1,440,046 compared to 2,111,804 in the 2012-2013 Program Year.

Print:	796,068
Cable TV:	60,060
Radio:	283,918
Online:	300,000
TOTAL:	1,440,046

3. Traffic to Program Website (www.smartwaterways.org)

Below is the website visitor information for 2013-2014, as compared to the two preceding years. The program year had 3,645 visits, significantly higher than visits in the two preceding years. Website traffic increases/spikes are in conjunction with the RSEP media campaigns and in the case of Spring and Summer 2013, due to the increased exposure from RSEP's sponsorship of the Connecting the Drops campaign.



APPENDIX B:
CCST 2013 ANNUAL REPORT

MCM #2
Chittenden County Stream Team
Summary of Activities January-December 2013

This report summarizes CCST activities in the 2013 calendar year. Demographic data about participant numbers from each town is presented in tabular form following the narrative.

Social Media

Facebook

- 83 “likes”-- a 26% increase in likes from 2012 annual report numbers (66 likes)
- 40% of the people who like CCST are from Burlington (33 people)

CCST Website

Google Analytics provides website traffic data from January 1, 2013 to December 31, 2013:

- 801 visits, spending an average of 3 minutes and 10 seconds on the website per visit
- 2,619 page views
- 62.9% of visitors were new visitors to the site; 37.1% of visitors were returning visitors.
- The number of visitors to the website has remained steady; there were 802 visitors in 2012.
- The highest spike in page views occurred after the fall newsletter was mailed. Other spikes occurred in the days following the Connecting the Drops rain barrel auction and throughout the summer after outreach events. On average, the busiest months for web traffic were May, June and October.

Newsletter and e-correspondence

- In 2013, there were 261 subscribers to the CCST newsletter, up 8% from 241 in 2012.
- A fall newsletter was sent out in October with a 36% open rate. CCST E-News open rate is high; the typical open rate for similar industries is between 20-25% according to research completed by Mail chimp.
- A targeted e-mail was sent to Shelburne residents to understand interest in holding a rain barrel workshop in their community. We received positive feedback and will be holding a workshop in spring 2014.

Organizational Partnerships

- Department of Corrections has taken a leadership role in rain garden maintenance near their facilities.
- Chamberlain Elementary School in South Burlington continues to work with the Stream Team to provide education to students and to install rain gardens on school property
- Boy Scout Troop #631 in Milton has requested to work with the Stream Team to receive educational information and to plan volunteer events
- A local landscaper has agreed to donate plants when available to our rain garden efforts. In 2013, Ann Pearce provided CCST with dozens of iris, lobelia and native grasses for multiple rain gardens (Chamberlin School, South Burlington; Brownell Library, Essex Junction; Department of Corrections, South Burlington and Coast Guard Station, Burlington).
- During the 2013 Connecting the Drops summer concert series on Church Street, CCST partnered with the Let it Rain program (administered by Winooski Natural Resources Conservation District and Lake Champlain Sea Grant) to provide outreach during the weekly concert events in July. Tabling on church street gave CCST the opportunity to potentially provide outreach to 750 people.

Media

Copies of each article are archived in the CCST 3-ring binder housed at the office of the CCST chair.

- South Burlington [“The Other Paper”](#) news story on Chamberlin Elementary School’s rain garden installation (9/05)
- South Burlington [“The Other Paper”](#) news story on South Burlington Library Rain Garden (10/03)
- South Burlington Magazine “South Burlington Life” news story on SB Library Rain Garden (10/2013)

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Chittenden County Stream Team
Summary of Activities January-December 2013

Outreach

- Outreach Events (Tabling) See data tables for detailed outreach audience information
 - Milton Community Dinner (3/11/13)
 - Kids' Day, Burlington (5/11/13)
 - Connecting the Drops Concert Series (Wednesdays in July)
 - Town of Essex and Essex Junction Block Party (7/21)
 - Shelburne Farmers' Market (7/27)
 - Williston Farmers' Market (8/7)
 - Essex Free Library (8/15)
 - Shelburne Harvest Festival (9/21)
 - Essex Heart and Soul Volunteer Fair (9/25)
 - Essex Junction 5 Corners Farmers Market (9/27)
 - Essex Fire Station Open House (10/12)
- Milton Scout Troup Presentation (7/31)
 - Presented and discussed stormwater with Scout Troup in Milton

Event-Driven Tasks

- Milton Lamoille River Walk Clean Up (May 18th, 2013)
 - Partnered with Milton Youth Coalition and Milton Conservation Commission
 - 10 volunteers attended and worked on trail repairs and clean-up
- South Burlington Library Rain Garden Installation
 - Installed by 39 volunteers on May 17th, 2013 and thoroughly tested by heavy rainstorms
- Water Quality Monitoring
 - Volunteer response was high: 27 expressed interest from throughout Chittenden County (including areas where we do not currently have sampling sites, like Jericho)
 - Volunteer training was held on June 18th, 2013 in Williston
 - Water Quality Sampling occurred on five scheduled dates (6/25, 7/9, 7/23, 8/13, 8/27) as well as sampling during rain events. Data was uploaded to CCST [website](#).
- Shelburne Longmeadow Flow Monitor
 - Data collected by a volunteer (Shelburne) has been compiled through December 2013
- Chamberlin School in South Burlington installed a third rain garden 8/29 and 30th 2013
 - 30 children, 3 teachers, 2 parents volunteered
- Lamoille River Walk Stream Clean Up in Milton 10/26
 - Milton Boy Scout Troop #631, 5 youths, 2 adults
- McCabe Brook Clean-Up in Shelburne 10/31
 - Shelburne Central School, 20 students and 1 teacher participated
- Adopt-A-Rain Garden
 - Volunteer Work Days: Maintenance occurred on 3 rain gardens with the help of 6 volunteers (1 Burlington, 3 Essex Junction and 2 South Burlington)
 - On-Going Volunteer Activity: Rain garden adopters maintain gardens throughout the year by making sure they are functioning properly and weeded/planted as needed (1, Burlington, 2 South Burlington, 1 Williston)
 - Rain Garden Status Information: Landry Park rain garden in Winooski is in need of repair. Callahan Park rain garden in Burlington functions well and has an active volunteer adopter, but has a sink hole in need

MCM #2
Chittenden County Stream Team
Summary of Activities January-December 2013

of repair. The Coast Guard Station rain garden in Burlington had an active adopter until the end of the summer; the garden needs a new adopter. Williston Town Annex rain garden is in need of maintenance and an adopter.

The target towns for hands-on participation in 2013 were Milton, Winooski, and Shelburne. The target numbers (based on the attached workplan) were met in Milton and Shelburne, but not in Winooski. The target number was not met in Winooski because the events planned to meet the target were implemented in the fall of 2012. There were 116 participants in outreach activities in Winooski during the fall of 2012. The CCST work plan shifted from being developed on a fiscal year basis (June-July) to a calendar year basis (January-December); the change in reporting schedule excluded the Winooski target numbers from 2013's annual report. Participation in 2013 was weakest in Williston, Winooski, and Essex. CCST will focus outreach efforts in those 3 towns in 2014.

Hands-On Project Participation (Event Driven Tasks)											
Activity	Location	Participant Town									
		Burlington	South Burlington	Essex	Essex Jct	Milton	Shelburne	Williston	Winooski	Other/ Unkown	Total
Lamoille River Walk Clean-Up (MYC and MCC)	Milton	1	0	0	0	9	0	0	0	0	10
S. Burl. Library Rain Garden Installation	South Burlington	0	39	0	0	0	0	0	0	0	39
Water Quality Monitoring	Multiple	6	2	0	3	1	0	2	0	3	17
Water Quality Monitoring Training Event	Williston	6	2	0	3	1	0	2	0	3	17
Long Meadow Flow Monitoring	Shelburne	0	0	0	0	0	1	0	0	0	1
Chamberlain School Rain Garden III Installation	South Burlington	0	35	0	0	0	0	0	0	0	35
Lamoille River Clean Up (Boy Scouts)	Milton	0	0	0	0	7	0	0	0	0	7
McCabe Brook Clean-Up	Shelburne	0	0	0	0	0	21	0	0	0	21
Adopt-A-Rain Garden Maintenance Days	Multiple	2	4	0	3	0	0	1	0	0	10
	Total	15	82	0	9	18	22	5	0	6	157

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Chittenden County Stream Team
Summary of Activities January-December 2013

Since participation numbers for Essex, Essex Junction, Williston, and Shelburne were low in 2012, these were the outreach target towns in 2013. Based on the table below, 2013 outreach efforts in these towns were a success. Hands-on events are planned for these 4 towns in 2014.

Outreach Activities Participation											
Activity	Location	Participant Town									Total
		Burlington	South Burlington	Essex	Essex Jct	Milton	Shelburne	Williston	Winooski	Other/Unkown	
Facebook 'Likes'	N/A	29	4	0	1	0	3	1	3	42	83
Website Visits	N/A	265	36	16	0	2	19	27	14	422	801
e-news Mailing List	N/A	39	24	7	14	23	6	15	21	112	261
Burlington Kid's Day	Burlington	0	0	0	0	0	0	0	0	50	50
Milton Community Dinner	Milton	0	0	0	0	18	0	0	0	0	18
Connecting the Drops Concert Series *	Burlington	0	0	0	0	0	0	0	0	750	750
Essex Junction Block Party	Essex Junction	0	0	3	10	0	0	0	0	5	18
Shelburne Farmers' Market	Shelburne	1	0	0	0	0	15	1	0	6	23
Williston Farmers' Market	Williston	0	1	0	0	0	0	4	0	0	5
Essex Free Library	Essex	0	0	4	1	0	0	0	0	0	5
Shelburne Harvest Festival	Shelburne	8	2	0	2	0	19	0	0	12	43
Essex Heart and Soul Volunteer Fair	Essex	0	0	8	5	0	0	0	0	0	13
Essex Junction 5 Corners Farmers Market	Essex Junction	1	0	0	9	0	0	1	0	2	13
Essex Fire Station Open House	Essex	0	0	22	0	0	0	0	0	0	22
Educational Visit with Boy Scout Troop	Milton	0	0	0	0	12	0	0	0	0	12
Total		343	67	60	42	55	62	49	38	1401	2117

*This number was estimated based on data provided by Church Street Marketplace, it is estimated that approximately 150 people visited the Connecting the Drops/CCST tables during each of the five concert events. We do not have demographic information regarding these numbers

Other Vermont towns that are not part of the Stream Team participate in Stream Team Activities. The chart below identifies towns with significant participation.

CCST Outreach and Event Participation Beyond Participating MS4 Towns							
	Town	Jericho	Richmond	Hinesburg	Charlotte	Colchester	Total
Facebook Likes	N/A	2	0	0	0	3	5
Website Activity	N/A	9	7	4	6	31	57
Mailing List Members	N/A	2	2	0	0	7	11
WQ Sampling Volunteers	Multiple	0	1	1	0		2
Outreach at Shelburne Harvest Festival	Shelburne	0	2	0	0		2
Outreach at Essex Jct 5 Corners Farmers Market	Essex Jct	0	0	0	0	1	1
Total		13	12	5	6	42	78

APPENDIX C:
PLAN FOR IMPLEMENTING FLOW MONITORING IN THE IMPAIRED WATERSHEDS



Megan Moir, CPESC, CPSWQ
Stormwater Plangineer

Direct 802 540-1748
cell 802 734-4595
mmoir@burlingtonvt.gov

January 2, 2014

Ms. Christy Witters
Vermont DEC
Watershed Management Division
1 National Life Drive
Montpelier, VT 05620-3522

Re: Plan for meeting requirements of IV.C.1(e)(7) - Flow Monitoring

Dear Ms. Witters,

The Chittenden County MS4's will cooperatively pursue a MS4 flow monitoring program in compliance with NPDES General Permit 3-9014 section IV.C.1.(e)(7). Participating communities include Burlington, Colchester, Essex, Essex Junction, Milton, Shelburne, South Burlington, Williston, Winooski, Burlington International Airport, University of Vermont and Vermont Agency of Transportation.

This cooperative effort is for the following streams:

Allen Brook (Williston), Bartlett Brook (South Burlington), Centennial Brook (Burlington/South Burlington), Englesby Brook (Burlington), Indian Brook (Essex / Essex Jct.), Morehouse Brook (Winooski), Munroe Brook (Shelburne), Potash Brook (South Burlington) and Sunderland Brook (Colchester / Essex /Essex Junction).

Compliance will be gained by flow and precipitation monitoring in one of three ways:

1. Work directly with the Agency of Natural Resources for flow monitoring compliance paid for in a fee simple manner.
2. Contract with United States Geological Survey (USGS) to install, maintain, and collect data and report for all flow monitoring stations according to the timeline attached (Attachment A).
3. Work with Chittenden County Regional Planning (CCRPC) as lead agency to oversee contract to install, maintain, and collect data and report for all flow monitoring stations according to the timeline attached (Attachment A).

Upon ANR approval, this plan shall become part of our MS4 Stormwater Management Plan.

Sincerely,

A handwritten signature in blue ink that reads "Megan Moir".

Megan Moir
Program Manager
City of Burlington Stormwater Program

ATTACHMENT A:

Proposed Schedule for Implementation of Flow Monitoring on Stormwater Impaired Streams

- January 2, 2014 – The Vermont MS4 communities (hereafter referred to as “the MS4s”) submit a schedule to the Vermont ANR that describes how stream flow monitoring requirements found in the MS4 permit will be met. In order to achieve consistency of results, cost savings, and efficiency in management of the new Stream Flow Monitoring Program (SFMP), the MS4’s will work collaboratively to create and implement a single SFMP consistent with requirements found in the approved MS4 permit.
- March 2014 – Vermont ANR approves the SFMP prepared by the MS4s.
- April – June 2014 – The MS4’s create an MOU that specifies cost sharing and project management for the SFMP. The MS4’s create a scope of work that defines the role and responsibilities of the program manager who will oversee stream monitoring efforts. The MS4s create a scope of work for the contractor who will complete stream monitoring activities and report to the program manager.
- July – August 2014 – The MS4’s release an RFP or otherwise take steps to retain a Program Manager for the SFMP. The MS4’s release an RFP to obtain a contractor who would implement the SFMP.
- September - December 2014 – Municipalities will be working on their FY16 budgets (July 1, 2015 through June 30, 2016) and will include funding for stream flow monitoring based on costs received through the previous RFP process.
- February 2015 – April 2015 – Municipal budgets, including funding for the SFMP, are approved for FY16.
- July 2015 – March 2016 – The program manager and contractor begin work on the SFMP. This includes purchasing equipment, establishing data collection sites, collecting stream cross section data, and performing other tasks as necessary to ensure that successful stream flow monitoring data will be generated starting in the Spring of 2016. The MS4s will hold quarterly meetings to review the progress of the SFMP with the Program Manager.
- April -May 2016 – Installation of stream flow monitoring equipment and collection of stream flow data begins in stormwater impaired streams in Chittenden County.

APPENDIX D:
LIST OF EXPIRED PERMITS IN THE IMPAIRED WATERSHEDS

City of Burlington Expired Permits
generated 2/5/2013

Permit Number	Project Name	Permit Status	RDA Permit	Permit Issued	Watershed	Structural BMPs	Pre/Post 2002	Project Town	Road Ownership
1-0337.XXXX	Howard Mental Health Services	Issued	n/a	3/4/1982	Englesby Brook	no	pre 2002	Burlington	n/a
1-1087.XXXX	Flynn Ave Coop Housing	Issued	n/a	9/15/1992	Englesby Brook	no	pre 2002	Burlington	private
2-0789	Overlake Condominiums	Issued	n/a	11/24/1988	Englesby Brook	no	pre 2002	Burlington	private
2-0999.XXXX	Champlain Apartments	Issued	n/a	4/20/1982	Englesby Brook	no	pre 2002	Burlington	n/a
2-1052.XXXX	Crescent Terrace	Issued	n/a	12/20/1985	Englesby Brook	no	pre 2002	Burlington	public
1-0661.XXXX	South Meadows	Issued	n/a	8/9/1988	Potash Brook	yes	pre 2002	Burlington	private
1-1441.0008	North Campus-Fletcher Allen-UVM	Issued	n/a	1/29/2001	Centennial Brook	yes	post 2002	Burlington/ UVM	n/a