Village of Essex Junction

The economic engine of Vermont.

Village Manager's Office
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March 27, 2014

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

Re: 2013 Report of General Activity
General Permit 3-9014
NPDES VTR 040000

Dear Ms. Witters:

Please accept this report of permit related activity for calendar year 2013 in compliance with the Village of Essex Junction MS4 Discharge Permit.

Respectfully submitted,

James L. Jutras
Water Quality Superintendent

cc: Pat Scheidel, Village Manager

2013 ANNUAL COMPLIANCE REPORT
VILLAGE OF ESSEX JUNCTION
STORMWATER MANAGEMENT
PHASE 2 MS 4
GENERAL PERMIT 3-9014
NPDES-VTR 040000

The Village of Essex Junction Notice of Intent was submitted in 2012 under General Permit 3-9014 issued on December 5, 2012. This report of activity is submitted in accordance with the terms and conditions of the permit and covers activity ranging from January 1, 2013-December 31, 2013 for the six minimum measures.

4.H.1 Public Education and Outreach & 4.H.2 Public Involvement/Participation

- Chittenden County Regional Stormwater Education Program (RSEP) and Chittenden County Stream Team (CCST) member.
    - RSEP Payment: $5,000 CCST Payment: $1,800
- Chair of RSEP and Co-Chair of CCST are Village staff.
- Press Release posted to bring awareness about RSEP. ***(See Appendix A and B)***
- RSEP helped sponsored Connecting the Drops event on Church Street during summer 2013. ***(See Appendix A)***
- Water Quality Table at the Village annual meeting had 10 visitors.
- Water bills sent quarterly to Village residents provide a link to SmartWaterWays.org.
- Friends of the Winooski River presented "Living Harmony with Streams" as part of the Village of Essex Junction Brownell Library lecture series.
- Wastewater facility tours: 4 Virtual tour: 4
    - Note: Reduced number of tours due to construction activities
        - Tours included: a) discussion on water pollution, pet waste control, toxic chemical disposal, fertilizer use, yard waste management and car washing b) awareness about the connection between personal practices and personal responsibility in protecting our regional water quality c) water quality issues and how wastewater and stormwater management are key to improving water quality d) discussion on our place in the Lake Champlain watershed and how our actions directly affect the water quality of the lake e)renewable energy and relation to water quality.
- Total Number of Bags On Board pet waste bags distributed: 2360
    - 115 distributed at Village's Annual Block Party
    - 54 distributed at Village's Annual Meeting
    - High volume is given out during pet registration at the Town Clerk's office which issues licenses for Village and Town residents.
    - Remainder of bags distributed through the Town and Villages Clerk's office
- Illicit Discharge brochures are maintained in public display racks at the Brownell Library and Village offices for distribution.
- Stormwater related postings occur occasionally on Village Front Porch Forum when needed.
- Village newsletters provide information on stormwater management. The March newsletter mailed to all homes and posted on the Village web site included links to the smart waterways and CCST websites.
- Water quality and stormwater management is noted in the Wastewater Treatment Plant and Water Quality Reports printed annually as part of the Village Annual Report.

- Friends of Winooski in collaboration with CCST performed water quality testing on the Indian Brook for the second summer in a row. TSS, turbidity, total phosphorus, total nitrogen and chloride were measured. (***See Appendix C)***
- An article was published in Essex Reporter bringing awareness to benefits of porous pavement installed in a new development in the Village of Essex Junction.
- A volunteer from the CCST Adopt-a-Rain garden maintenance program adopted the Brownell Library rain garden.

Education and outreach efforts are summarized in ***Appendix A and D*** of this report. General compliance detail for public involvement is available from the Village of Essex Junction Water Quality Superintendent upon request.

4.H.3 Illicit Discharge Detection and Elimination

In 2013, there were eight complaints or discoveries as noted below:

- Two illicit discharges into catch basins on Greenwood Avenue and South Street were discovered and investigated by staff. Evidence of illicit discharge was on catch basin covers. No material remained in the basin or basins downstream. Illicit Discharge door tags emphasizing only rain down the drain were distributed to houses surrounding the catch basins.
- An illicit discharge into a catch basin on Beech Street was discovered by Village staff. Material which appeared to be a thick yellow latex paint or similar substance was on the cover and in the basin. The material was cleaned out of the catch basin and disposed of properly. No material was found in downstream basins. Illicit Discharge door tags emphasizing only rain down the drain were distributed to houses surrounding the catch basin.
- An oil slick was discovered by Village staff on Hawthorne Circle near the stormwater pond. Homeowners stated a construction truck had been parking there. No oil was found in the surrounding catch basins or stormwater pond; only in the road. As precaution oil absorbing pigs were placed in the inlet structures of the pond.
- Excessive amounts of grass clippings were discovered by staff dumped on top of catch basins on Wilkinson Drive and Owassia Avenue. The material was cleaned away from the basin and the streets were monitored periodically. The discoveries appeared to be isolated events.
- A hose draining a pool directed towards a catch basin was discovered by staff on Wilkinson Drive. No smell of chlorine was present in the water.
- A Village resident living on Wood's End Road complained of a possible illicit discharge (dirty, colored water) in their backyard. Village's staff investigated area and determined it was natural iron deposits.

4.H.4 Construction Site Stormwater Runoff Control

- Planning Department, Water Quality Superintendent and Village Engineer continue to review permit application for potential impacts of site runoff and that stormwater management is incorporated.
- Proper disposal of waste construction materials from the Chittenden Solid Waste District (CSWD), RSEP home construction and painting fact sheets are included with every permit issued.
- Number of "Ways to minimize construction site runoff" fact sheet distributed with permits: 29 ***(See Appendix E)***
- Site visits by planning staff are part of every construction permit and certificate of occupancy processes.

- Number of permits issued by planning and zoning department: 207
- Number of projects disturbing greater than 1 acre land: 7
- Number of projects disturbing less than 5 acres of land with greater than 1 acre impervious surface: 3
- Number of erosion control site visits/inspections: 16
- $15.1 million maintenance upgrade at the Wastewater Treatment Facility continues. Staff performs daily erosion and sediment runoff control inspections at the site which is located next to Winooski River. Any issues discovered are brought to the attention of the site contractor and engineer who work to correct it. Construction is expected to be complete in 2014.
- Other major construction projects in the Village included the Handy Apartment Complex at 58, 60 and 62 Lincoln Street and the Police Station on Maple Street. In addition, condos at Whitcomb 2 & 3 continue to be built.
- Old Colchester Pump station construction was completed in early 2013. Tree planting to achieve bank stabilization is scheduled for this year through a grant partnership with Winooski Natural Resources Conservation District along Indian Brook.

4.H.5 Post Construction Stormwater Management

- Stormwater management files are maintained for all permitted and expired sites in the Village.
- Post construction stormwater management is inherent in the design review provided by the Village and its Engineer.
- Village staff performed construction engineer's inspection and as-built verification for all infrastructures annually. Maintenance and repairs are scheduled along with work required in permit areas.
- A Joint Stormwater Committee was formed between the Village and the Town of Essex to coordinate efforts at improving water quality of the stormwater impaired watersheds (Indian and Sunderland Brook) in compliance with the MS4 permit.
- Monitoring and inspection for erosion control measures at Whitcomb 2 and 3 developments continue during construction. The Village has accepted this infrastructure, understanding that there will be incremental site development in accord with the original permit and that site modifications as directed by the Village.
- A "Concrete cloth" demo made by Milliken was installed in a ditch on Main Street during the fall where frequent wash-outs occurred during intense summer storms.

4.H.6 Pollution Prevention/Good Housekeeping for Municipal Operations

- Catch basin, water line, hydrant, sewer line repair maps were updated. Digitized maps are available on paper and on computer for ready use in the field. Work continues yearly on the maps as part of ongoing quality control.
- Comprehensive system inspections of all catch basins were performed by Village staff. Emphasis was on system integrity, identification of map conflicts, maintenance/repair work and cleaning all catch basins as necessary. Findings of the inspectors were verified by the Water Quality Superintendent.
- Number of catch basins cleaned: 110
- Amount of tailings collected from cleaned catch basins and Vortech units: 55 yards
- Catch basin tailings are collected, stockpiled and properly managed at a state approved waste management area.
- "Scoop the Poop" – a community education program regarding dog waste was continued.
- Village staff coordinated a joint purchase of "Bags on Board" pet waste disposal systems on behalf of the Village and Town of Essex.

- A replacement street sweeper was purchased this year. All public roads are swept several times with a year. Material is disposed of in compliance with operating permits at the Ted Beaudoin site on 262 Middle Road, Milton. Solid Waste ID CH990.
- Number of road miles swept: 123
- Amount of material removed by street sweeping: 157 yards
- The Wastewater facility maintains a Sewage Spill Prevention Plan (SSPP) for the community in compliance with state regulation and is subject to periodic review.
- Public Works maintained Exempt Small Quantity Generator Status for hazardous materials. The Wastewater Facility maintained Exempt Small Quantity Generator Status for hazardous materials handling and disposal. This work continues through good management waste minimization practices.
- The wastewater facility continues with monitoring and reporting for Tier 2 regulatory requirements for "Community Right to Know" compliance for all Village Departments.
- Sewer line maintenance continues. The Village tracks all sewer backups and makes determination as to cause of the problem. Any problem areas are proactively monitored to prevent release of raw sewage to the waters of the State.
- The Vortech swirl separator units' installed at Five Corners North, Brookside and Fairview Farms are periodically inspected (30+/- times) by Village staff and regular preventative maintenance of the system occurs. The three units are cleaned every year.
- The Village continues with liquid land application of Biosolids with the Whitcomb Farm. With subsurface injection equipment, the farm manages manure with the same equipment. This injects fertilizer to the root zone for stable fertilizer application and minimization of runoff. With the farms nutrient management plan, this leads to more efficient operations and reduced nutrient runoff potential for the benefit of the Whitcomb farm and Lake Champlain.
- Employees participated in RSEP sponsored municipal workshop training related to pollution prevention and stormwater management.
- Employees attended several online webinars put on by US EPA relating to stormwater issues. Topics included how to use the EPA National Stormwater, Road Salt Pollution Prevention Strategies, Best Practices for Green Infrastructure O&M.
- Stormwater Pond signs were installed for Village maintained stormwater ponds. The signed informed the public about the ponds and what the intended use is. ***(See Appendix F)***
- All catch basins on Athen's Drive were raised to more effectively catch sediment and debris.
- Stormwater program operating budget for the Village increased to $84,946 for FY13.
- The Village worked with UVM Engineering Capstone Course to design a Green Infrastructure plan for the Village's snow dump located and the entrance to the WWTF.
- Culvert drainage repair by Public Works occurred on Mansfield Avenue after extensive repetitive flooding occurred due to high intensity summer rain storms.
- 4 turbidity samples of the Indian Brook were taken at Sugartree lane, Town of Essex Municipal Office/Police Station, Essex Recue and the Old Colchester Road Pump Station during spring runoff. The area that was most turbid was near the Town of Essex Municipal Office.
- An engineering study on Shawn's Way drainage was conducted during the summer after a period of high intensity storms causing flooding problems in the surrounding watershed.

CERTIFICATION

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 gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted 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.

Dated at Essex Junction, Vermont this 27th day of March, 2014.

Signature: _____
Pat Scheidel, Village Manager
Village of Essex Junction

Signature: _____
James L. Jutras, Water Quality Superintendent
Village of Essex Junction

Appendix A

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 exhibited 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 3,1,87 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

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.

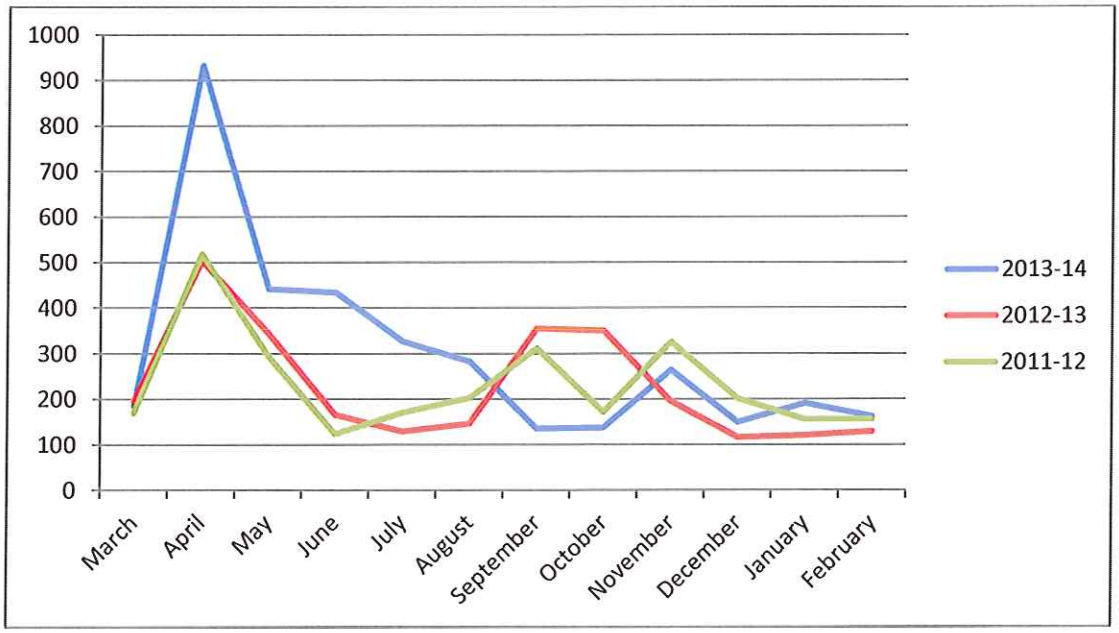
2. **Total Paid Media Impression, 2013 (Spring Campaign only)**

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

Communities work together to improve water quality.

For more than 10 years, several Chittenden County communities, including the Town of Essex and the Village of Essex Junction, have worked together to create and operate the Regional Stormwater Education Program (RSEP). This organization is a collaborative effort of nine municipalities, the University of Vermont, the Vermont Agency of Transportation, and the Burlington International Airport. The central mission of RSEP is to educate the public on how stormwater affects our streams and Lake Champlain and the simple things we all can do to improve overall water quality. Together, we have been able to do much more than we would if efforts were simply done on a town-by-town basis.

Our efforts have included extensive community outreach and education to residents on small but important things anyone can do: picking up pet waste, reducing the use of fertilizers and pesticides, testing soils to determine if fertilizers are even needed and greener practices for car washing.

We are happy to report that progress is being made and the overall results are promising. In 2013, we surveyed more than 400 residents of the nine RSEP member towns. More than 80% of those surveyed now pick up pet waste compared to only 62% in 2003. Pet waste can be a significant source of bacterial contamination to our streams and Lake Champlain. Similarly, only 29% of the citizens surveyed use fertilizers on their lawn, down from 50%. We also saw an increase in soil testing to determine whether fertilizers are even needed. Testing soil for fertilizer need saves money, but also prevents unnecessary pollutants from entering our local waters. Your efforts have resulted in significant progress.

Additionally, the Town and the Village have come together to create a Joint Stormwater Committee (JSWC) with the purpose of exploring and making recommendations relating to joint /cooperative stormwater management, operations and funding of stormwater activity in the Indian and Sunderland Brook watersheds. For more information regarding the activities of the JSWC, please visit www.essex.org.

To that end, in 2014 and beyond, we will be providing you more information on how you can further protect waterways by using rain gardens, rain barrels and reducing impermeable surfaces on your property. As spring and summer rainstorms become more intense, these actions can "Slow the Flow" of stormwater so our local waterways don't become excessively eroded and/or clogged with silt and other trash.

We would like to thank the people of the Town and the Village for the ongoing commitment to improving our streams and Lake Champlain, and we remain committed to working with you to advance these common goals. We encourage anyone who wants to learn more about what you can do to keep our streams and Lake Champlain clean to please visit www.smartwaterways.org.

Dennis Lutz, P.E., Public Works Director
Jim Jutras, Water Quality Superintendent
Chelsea Mandigo, Environmental Technician
Annie Costandi, E.I, Stormwater Coordinator
Regional Stormwater Education Program Steering Committee Members

Appendix C

C

CCST and Friends of the Winooski LaRosa Grant sampling
Indian Brook 2013

Location	Date	Chloride (mg/L)	Nitrogen, Total – Persulfate (mg/L)	Phosphorus – Digested (ug P/L)	Turbidity (NTU)
Indian 10	6/23/2013	39.6	0.65	52.3	4
Indian 20	6/23/2013	9.65	0.35	39.9	7.71
Indian 10	7/9/2013	53.4	0.78	36.5	5.65
Indian 20	7/9/2013	9.51	0.37	37.8	5.05
Indian 10	7/23/2013	150	1.25	31.3	4.05
Indian 20	7/23/2013	43.7	0.36	37.20	9.06
Indian 10	8/13/2013	179	1.61	40.5	5.04
Indian 20	8/13/13	77.6	0.43	59	4.64
Indian 10	8/27/13	163.00	1.34	53.4	16.6
Indian 20	8/27/2013	99.40	0.40	35.6	6.42
Indian 10	9/10/13	85.00	1.07	71.70	7.86
Indian 10	10/06/13	161.00	1.33	54.60	5.52

- For 2012 data and location of sample sites visit www.ccstreamteam.org.

Appendix D

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)

MCM #2
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

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)

		Participant Town									
Activity	Location	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

MCM #2
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

		Participant Town									
Activity	Location	Burlington	South Burlington	Essex	Essex Jct	Milton	Shelburne	Williston	Winooski	Other/ Unkown	Total
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 E

Helpful Tools for Minimizing Residential Construction Site Stormwater Runoff

- Cover loose dirt piles with a tarp when not in use
- Keep dirt out of driveway or other hard surfaces
- Cover exposed soil with mulch, hay or other similar materials
- Establish permanent ground cover or permanent vegetation as soon as possible
- Downspout extenders may be used to protect temporarily stabilized area from roof runoff by directing water from your roof gutters to paved or grass areas
- The Low Risk Site Handbook for Erosion Prevention and Sediment Control http://www.vtwaterquality.org/stormwater/docs/construction/sw_low_risk_site_handbook.pdf
- Vermont Low Impact Development Guide for Residential and Small Sites http://ecvermont.org/wp/wp-content/uploads/2012/12/LIDGuide.pdf
- The Small Sites Guide For Stormwater Management http://www.vtwaterquality.org/stormwater/docs/swimpairedwatersheds/sw_rda_small_sites_guide.pdf

Appendix F

Signage posted this year at all Stormwater Ponds owned by Village

2013 MS4 INDICATORS	MS4 Essex Junction, VT
CATCH BASIN CLEANING CYDS or #BASINS CLEANED	110 cleaned or 55 yards
STREET SWEEPING (DIRT&LEAVES) CYDS OR #ROAD MILES SWEPT	123RM and 157CYDS
GREEN-UP & STREAM CLEAN-UPS #TONS OF TRASH DISPOSED **(CSWD-just trash not metals or tires)**	Data Not collected
HAZ WASTES DISPOSED OR REUSED LBS **(CSWD JULY-JULY)**	See MM5
#STORMWATER OUTFALLS SURVEYED	113
#CATCHBASIN INSPECTIONS	1529
#STORM DRAINS MARKED	0
#ILLICIT DISCHARGES DETECTED	7
#ILLICIT DISCHARGES ELIMINATED	7
#CONSTRUCTION EROSION SITE INSPECTIONS	16
#SITE PLAN REVIEWS FOR SW MANAGEMENT	7
# SW DISCHARGE PERMIT RENEWALS	-
DOLLARS SPENT ON STORMWATER PROGRAM	$84,946
MUNICIPAL EMPLOYEE TRAINING WORKSHOP ATTENDANCE (HRS)	10
#PET WASTE BAGS DISTRIBUTED	2360
CHANNEL PROTECTION VOL. CREATED (CUBIC FEET OR ACRE-FT)	None that can be specifically identified