

City of South Burlington



Annual Stormwater Report

March 18, 2008

General Permit 3-9014

National Pollutant Discharge Elimination System

Number: VTR040000

Report prepared by the



South Burlington
Stormwater Utility

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1. Executive Summary

This annual report is submitted by the City of South Burlington (hereafter referred to as the “City”) detailing its implementation of the six (6) minimum measures outlined in its approved Stormwater Management Plan (SWMP), as required under General Permit #3-9014 for the Municipal Separate Storm Sewer (MS4) in South Burlington. This report will summarize the work completed in 2007. In addition, this report will summarize efforts conducted over the entire 5 year permit cycle.

The City had another successful year managing stormwater runoff and implementing the components of its SWMP. Highlights from the 2007 permit year include:

- Stormwater Utility staff met with numerous homeowners associations to discuss stormwater pollution, treatment, and the role of the Utility.
- Continued efforts to educate the public on stormwater issues through participation in the Regional Stormwater Education Program (RSEP).
- Overhaul of the Stormwater Utility web page and creation of new project sheets.
- The detection and elimination of 6 illicit discharges, and the continuation of a strong monitoring program to detect illicit discharges that are entering the MS4 and waterways.
- Successful implementation of the City’s street sweeping plan.
- Updates to the City’s digital stormwater infrastructure data and ongoing efforts to increase the efficiency of data collection.
- The coordination of numerous projects related to stormwater treatment, including the construction of the Farrell Street Stormwater Project. This project included the installation of a large stormwater pond, swirl separator, bio-retention area, pervious asphalt and the replacement of an old culvert.

The City has numerous projects planned for 2008 that will further the goals of the approved SWMP. A few of the upcoming projects for 2008 are:

- Complete Farrell Park Constructed Wetland and the associated informational signage
- Complete Farrell Street Stormwater Project
- Begin stormwater pipe inspection process using the City’s new Cues camera van
- Construct an extended detention micropool near Oak Creek Village
- Complete a stormwater study on a portion of Williston Road
- Engineering and design of Low Impact Development (LID) stormwater management techniques in the Butler Farms neighborhood.
- Engineering and design of a large stormwater detention pond near the Butler Farms neighborhood.
- Pipe work in the Laurel Hill neighborhood to alleviate flooding issues.
- Culvert repair and drainage improvements on Patchen Road.

If there are any questions concerning this report you can contact the Stormwater Superintendent at (802) 658-7961.

2. Public Education and Outreach

In order to comply with permit requirement 4.2.1 the City of South Burlington (hereafter referred to as the “City”) agreed to meet the following goals before the end of the permit cycle:

Establish a website for stormwater information **Status:** Complete

Since 2003, the City of South Burlington Stormwater Utility has maintained a website for stormwater information at www.sburl.com/stormwater. The web site was completely revised during 2007. Information about the Utility and stormwater projects occurring throughout the City has now been made readily available on the site. In addition, stormwater education messages are consistent with the information on the Regional Stormwater Education Program (RSEP) web page. The web page will be updated annually.

Participate in Regional Stormwater Education and Outreach Strategy **Status:** Complete

The City has participated in the Regional Stormwater Education Program (RSEP) steering committee and has made its required payments in support of the program. A copy of the RSEP annual report by Marketing Partners is included with this report (Appendix A). A 5 year summary of the RSEP program is also included with this report (Appendix A).

Supplemental Education and Outreach **Status:** Complete

Since the permit cycle began, the City has conducted supplemental education and outreach in the following ways:

1. The City implemented a public communications program explaining the Stormwater Utility and the reason for its creation. Several presentations were given to the public as part of this effort. In addition to the public presentations, three presentations were given to the business community. The meetings were well attended with positive audience participation.
2. Numerous meetings with the Butler Farms / Oak Creek neighborhoods were conducted as part of the Redesigning the American Neighborhood (RAN) project.
3. The Vermont Commons School conducted storm drain stenciling in the Bartlett Brook watershed. The Utility crew placed over 100 permanent metal storm markers in various locations around the city as an experiment to evaluate the storm markers effectiveness. Due to the success of these experiments, the Utility has continued the use of these permanent metal storm drain markers.
4. Green-Up Day includes volunteer clean-up of a stream reach every year. The University of Vermont has supplied a work crew to assist in the clean up.
5. Meetings were held to discuss stormwater pollution, stormwater permitting, and the role of the Stormwater Utility with the following homeowners associations: Winding Brook, Village at Dorset Park, Ridgewood, Indian Creek, Butler Farms, Oak Creek Village, Foxcroft, and Cardinal Woods.

6. Stormwater Utility staff placed stream signs at 10 locations throughout the City. The purpose of these signs was to make the public aware of its “watershed address” and foster a better understanding of the streams located in South Burlington. Signs were placed in locations where the stream was visible from the roadway and where they would be seen by the largest number of motorists.
7. Stormwater Utility staff assisted in the planning and installation of demonstration projects for pervious pavement (Farrell Street) and rain gardens (Butler Farms) in 2007.
8. In November of 2007, the Stormwater Superintendent gave a presentation on stormwater management at the Vermont Planners Conference in Montpelier. The presentation focused on improving stormwater management at the local level and included suggestions on items to include in zoning regulations.
9. 2007 National Night Out – City staff from the Planning Department set up a stormwater display at the 2007 National Night Out. The booth contained outreach information on stormwater best management practices. Pet waste disposal bags, magnets advertising smartwaterways.org, and other stormwater bookmarks were given away.
10. The stormwater superintendent gave tours of the Bartlett Bay Stormwater Treatment Wetland to two different Middle School classes. In addition to receiving education on stormwater treatment, the students conducted Benthic Macroinvertebrate (BMI) sampling in nearby Bartlett Brook.



Pervious Asphalt installed as part of the Farrell Street Stormwater Project is visible in the foreground

3. Public Involvement/Participation

In order to comply with permit requirement 4.2.2 the City conducted the following activities over the last permit cycle:

Establish a WQ Program Involving Volunteers

Status: Complete

The City has used the Natural Resources Committee and the Voice for Potash in previous monitoring efforts. Monitoring in 2007 was conducted by Stormwater Utility staff, or its consultants.

Institute a Storm Drain Stenciling Project**Status:** Complete

During this permit cycle, the Vermont Commons School completed a storm drain stenciling project in the Bartlett Brook Watershed. In the first years of this permit cycle, the Stormwater Utility placed over 100 permanent metal storm drain markers in various locations around the City as an experiment to evaluate the storm markers effectiveness. Since that time, the City has expanded the installation of these storm drain markers. To date, 384 storm drains have permanent markers (Figure 1). These efforts will continue in the coming years.



Permanent marker placed on storm drains

Sponsor a Stream Clean Up**Status:** Complete

Green-Up Day included volunteer clean-up of a portion of Tributary 3 of Potash Brook, behind the University Mall. Area high school students and the University of Vermont assisted in these efforts. In all subsequent years, Green up day has included stream clean efforts.

Contribute Additional Funds to RSEP**Status:** Complete

Through 2007, the City has paid an extra \$4,000 to the RSEP program.

Additional Actions**Status:** Complete

1. The City implemented a public communications program explaining the reason for the Stormwater Utility. Several presentations were given to the public. In addition to public presentations, three presentations were given to the business community. The meetings were well attended with positive audience participation. Additional meetings with the Butler Farms / Oak Creek neighborhood are ongoing as part of the Redesigning the American Neighborhood project.
2. The City helped coordinate the Rain Gardens Project, an EPA Section 319 Demonstration Grant project, with the VYCC. The project led to extensive publicity through television and newspaper coverage, including a special segment on "Across the Fence".
3. The City coordinated with the VYCC to clean up a defunct stormwater pond in the Foxcroft / Cardinal Woods neighborhood. The VYCC also assisted in brush and debris removal of a stormwater pond located at The Pines. This pond was causing issues for neighbors and the VYCC's efforts facilitated further improvements to this pond.

- The City worked with the Stonehedge / Cedar Glen homeowners associations to procure a TLC grant to investigate stormwater related issues that exist throughout the neighborhood, along the public road, and along the public bike path. The goal of this investigation is to formulate a plan to alleviate stormwater issues that currently exist in the area. This effort was completed in February 2008 and a final report has been prepared. Residents of the Stonehedge / Cedar Glen communities are now meeting to decide what to do next.

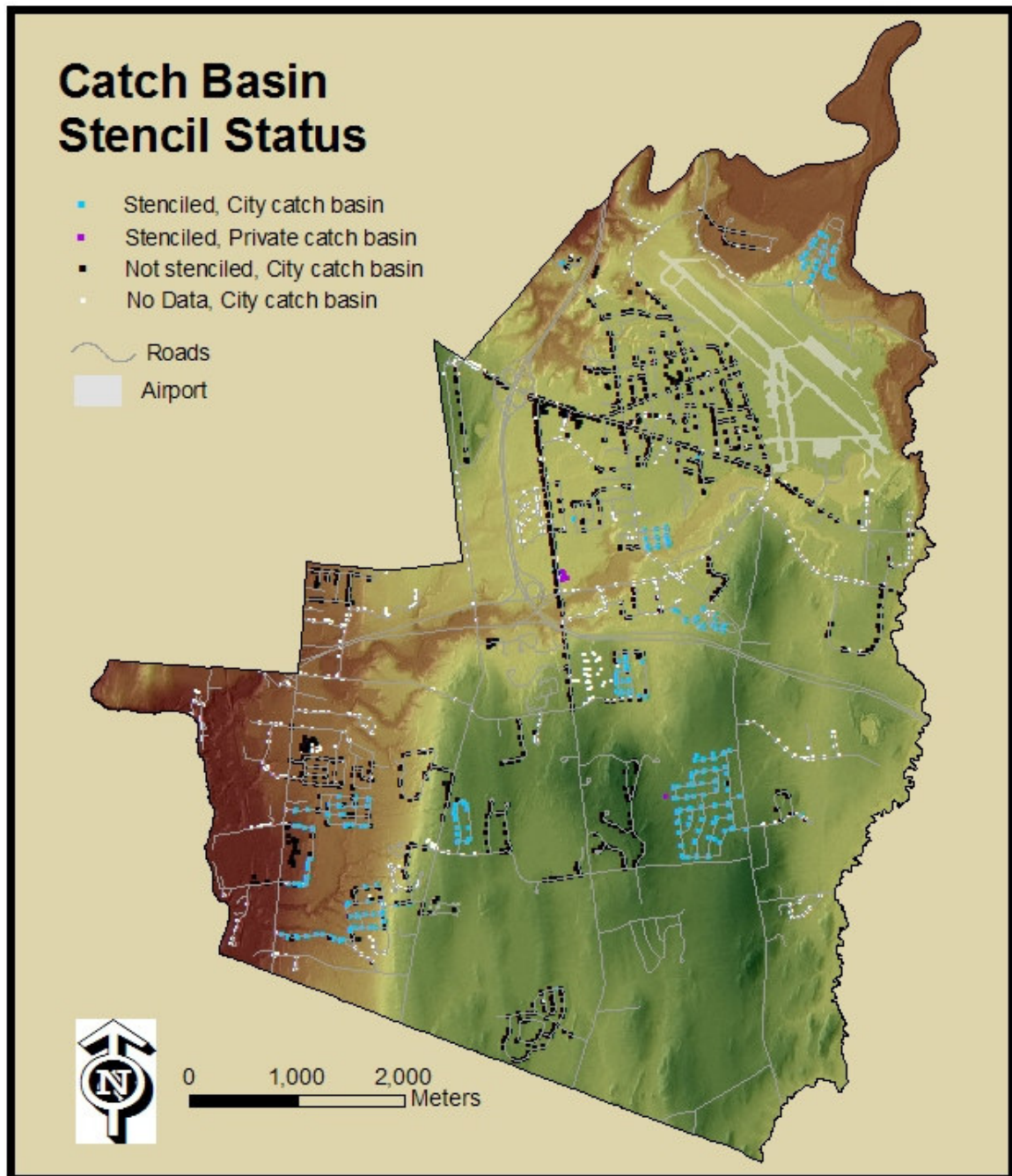


Figure 1 – Storm Drains in South Burlington with Permanent Markers Attached

5. The City met with numerous home owners associations to discuss stormwater treatment and state stormwater permitting. These neighborhoods include: Winding Brook, Swift Estates, Stonehedge, Laurel Hill South, Valley Ridge, and Stonehouse Village.
6. The City undertook an engineering study to determine the cause of stormwater and flooding issues in the Laurel Hill South neighborhood. A final report summarizing alternatives has been issued. The City intends to begin work on some of the more critical items in the summer of 2008.
7. In April of 2007 the City participated in Career day at South Burlington High School. Representatives from the Stormwater Utility discussed careers in water quality, Geographic Information Systems (GIS), and Public Works with students. Stormwater outreach materials were also distributed.

4. Illicit Discharge Detection and Elimination

In order to comply with permit requirement 4.2.3 the City conducted the following activities during the last permit cycle:

Establish a Stormwater Utility and Begin Outfall Reconnaissance and Screening For Illicit Discharges **Status:** Complete

The Stormwater Utility has implemented an outfall screening program with the purpose of finding and eliminating illicit discharges. Utility staff uses methods described in the Illicit Discharge Detection and Elimination (IDDE) guidance manual prepared by the Center for Watershed Protection and Robert Pitt. Priority areas were determined by reviewing past studies. Prioritization for outfall screening was accomplished using desktop analysis and review of the Stormwater Management Plan. The City prepared a 5 year summary report on its IDDE program and submitted this information to ANR on January 24, 2008.

MS4 Information Maps **Status:** Complete

Mapping of the MS4 system is substantially complete. Updates and ground-truthing are ongoing. All information collected on paper forms has been added to the ArcGIS database.

IDDE Ordinance **Status:** Complete

The City of South Burlington adopted an ordinance to deal with illicit discharges on March 22, 2005.

Hydrant Flushing BMP **Status:** Complete

The Champlain Water District (CWD) has implemented de-chlorination.

Conduct IDDE Training **Status:** Complete

The Stormwater Superintendent attended a two day "Train the Trainers" course intended to assist other entities with their illicit discharge program. Stormwater Utility staff has been trained in methods established in the IDDE Guidance Manual prepared by the Center for Watershed Protection and Robert Pitt.

Complete Initial Testing**Status:** Ongoing

Information on all stormwater outfalls in the City is now contained in an ArcGIS database. During the last 5 years, the City has collected additional data on 301 of the 618 outfalls known to exist in the City. In completing this work, the City reviewed the outfall inventory data prepared by Pioneer Environmental (as part of the impaired sub-watershed delineation mapping project) and has conducted testing to evaluate the potentially illicit discharges identified in that study.

Outfall testing conducted to date has not shown a significant number of illicit discharges. However, a handful of illicit discharges have occurred in the City during the past year. Steps have been taken to correct all problems illicit discharges encountered. Specific information concerning illicit discharges that occurred during the last year is provided below:

1. **COCo Vehicle Washing** - Historic reports of soapy and dirty water in a portion of Potash Brook near Brookwood Drive led Stormwater Utility (SWU) staff to investigate upstream inputs to the drainage system. In addition, City staff received calls from residents complaining that a nearby trucking company was washing vehicles and allowing the washwater to flow into a storm drain located on site. In cooperation with the trucking company, SWU staff dye tested the storm drain and determined that the vehicle washwater was in fact entering the stormwater drainage system that eventually discharged into Potash Brook. The trucking company agreed to make major site changes to prevent this discharge from occurring. Washwater is now collected in a storm drain, directed through an oil water separator, and sent to the wastewater treatment plant. A small berm prevents additional runoff from the parking area from entering the storm drain.
2. **High School Paint Dumping** - SWU staff received a call from the construction inspector on the Kennedy Drive reconstruction project describing a red discharge flowing into the wetland adjacent to the construction site. SWU traced the red discharge to a storm drain located near the maintenance entrance at the South Burlington High School. Discussions with school representatives determined that school maintenance staff had dumped old field paint down the storm drain. At the time of the spill, measures were taken



Outfall where dumped field paint discharged to surface waters

to reduce the amount of red paint reaching the wetland. After the incident, the school district conducted additional training for maintenance personnel. In addition, SWU staff placed metal “No Dumping” labels on all the storm drains located at the public schools.

3. **Paint Dumped at Country Club** - A resident called the Department of Public Works to report that a neighbor had been dumping paint down a storm drain. SWU staff followed up on this claim, but found no clear evidence of this illegal dumping in the storm drain, or at the outfall. SWU staff placed metal “No Dumping” signs on all storm drains in the neighborhood. No additional complaints have been received.
4. **Blue discharge in UVM Stormwater Pond** - While inspecting stormwater infrastructure, SWU staff noticed a blue discharge entering the UVM stormwater treatment pond near the Sheraton hotel. SWU staff contacted representatives at UVM and attempted to find the source of the blue discoloration. A definitive source for the discharge was never discovered
5. **Valley Ridge Cracked Force Main** - A resident called the Department of Public Works in South Burlington to complain about water bubbling up in his lawn. The cause of this water could not immediately be identified. The bubbling would occur intermittently and not necessarily when the nearby wastewater pump station was in operation. In addition, numerous foundation drains were tied into the nearby storm drain and were also suspected to be the cause of this discharge. Because it was an older neighborhood, maps of the buried infrastructure were unreliable. After speaking with nearby residents, dye testing the pump station and dye testing toilets of the nearby homes, City staff decided to excavate in order to determine what was causing the discharge. It was discovered that the 2” force main from the nearby pump station ran through this yard and had cracked. When the pump turned on, it caused the water to bubble to the surface. A piece of fabric was on the pipe near the crack and this could



A cracked force main caused wastewater to bubble to the surface in Valley Ridge

possibly have plugged the hole at times. This would explain why the bubbling did not correlate to when the pump station turned on. The force main was repaired and the area was backfilled, seeded, and mulched. No additional discharges have been observed.

6. **Atlantic Detroit** -The South Burlington City office received a call from a former employee at the Atlantic Detroit facility located at Berard Drive complaining that the wastewater leach field had been tampered with. No evidence of this could be observed, however, while on site City staff observed a trail of oil leaving the garage and leading towards the Winooski River. Discussions with staff at Atlantic Detroit revealed that someone had washed a truck engine outside and allowed the washwater to flow off the site. SWU staff provided the garage workers with information about the proper way to clean engines, how to handle waste oil, and other garage best management practices (BMPs). A letter detailing the incident was sent to the facility recommending training and other BMPS.

A full report on the City's IDDE, monitoring, and sampling efforts over the last 5 years was provided to ANR under a separate cover on January 24, 2008.

Provide ANR Secretary with a Summary of Monitoring Activities **Status:** Complete

On January 24, 2008 Stormwater Utility staff provided the Secretary with a summary of monitoring activities conducted and corrective actions taken over the last permit cycle.

Additional Actions: **Status:** Complete

1. The Stormwater Utility, in conjunction with the Sewer Department, has purchased a robotic pipe camera. This camera unit will enable the City to thoroughly investigate the subsurface piping system for illicit connections and discharges. Work is already underway to develop a plan for pipe investigation and train staff in the use of this new equipment.

5. Pre-Post Construction Stormwater Management

In order to comply with permit requirements 4.2.4 and 4.2.5 the City conducted the following activities over the last permit cycle:

Adopt Land Development Regulations (LDRs) **Status:** Complete

The City has conducted a thorough review of its ordinances and regulations regarding construction runoff control. The Stormwater Utility Ordinance has provisions regarding inspection, which rely on the standards in Article 16 of the LDRs. The construction erosion control standards in the LDRs have been observed, and the City anticipates improving them over time.

Procedure to Notify ANR of Projects Requiring a CGP **Status:** Complete

The City has added a box to its application forms for site plan, final plat, and miscellaneous land development permits requiring information on the total area to be

disturbed. Applicants are referred to City requirements in Article 16 of the LDR for projects disturbing between ½ and 1 acre, and to VT DEC for projects disturbing more than 1 acre. A list of South Burlington projects creating > 1 acre of impervious area and/or disturbing > 1 acre of land is included in Appendix B.

Assist with Inspections and Enforcement

Status: Complete

Both the City's Administrative Officer and the Stormwater Superintendent inspect sites for compliance with requirements relating to construction runoff control. The Stormwater Superintendent maintains a list of active construction projects within the City, and Utility staff ensures the proper maintenance of BMPs on these sites.

6. Pollution Prevention / Good Housekeeping

In order to comply with permit requirement 4.2.6 the City has conducted the following activities during the last permit cycle:

Disposal Procedures for Waste Removed From MS4

Status: Complete

Materials collected during cleaning activities (i.e. street sweeping, catch basin cleaning, etc...) are added to a pile located at the DPW facility. As necessary, this material is tested to determine if it is usable as fill. To date, the material has tested negative for pollutants. In anticipation of new regulations regarding the handling of these materials, the City made improvements to the storage area in the summer of 2007. Materials collected during street sweeping are now separated from materials collected during catch basin cleaning. Piles are tested individually.

Housekeeping Issues

Status: Complete

The City has taken steps to reduce pollution by covering the fueling station at the DPW and calibrating the salt systems on the plow trucks. In the winter of 2006, the City began using a newer version of the salt calibration system on two of the trucks. The updated version of the salt calibration system increases the efficiency of the salt used, thus resulting in a lower application rate. In addition, in the fall/winter of 2007 the City purchased a liquid chloride system that will reduce the amount of road salt applied. By treating the salt with this chloride mixture prior to spreading it on the road less salt is lost to scatter. In addition, treating the salt in this way reduces the operating temperature of the salt. This also reduces the total amount of salt needed to achieve similar results.

Street Sweeping Program

Status: Complete

The City now operates two street sweepers. In the Summer/Fall of 2006 the City rewrote its street sweeping plan (available upon request). The program's goal is to ensure that all streets are swept at least twice a year, with higher traffic streets getting swept on a more regular basis. The program was pilot tested in the Fall of 2006, reworked over the Winter 2006, and implemented in 2007.

Catch Basin Cleaning & Inventory

Status: Complete

Current mapping indicates that there are 4,504 catch basins and manholes in the City. Of these, 2,642 are owned by the City. Since the Stormwater Utility crew began its

maintenance program in July of 2005, 761 basins have been cleaned (Figure 2). This accounts for 29% of the City-owned catch basins in South Burlington. In 2007, 335 basins (12.7%) were cleaned. Accurate inventory data for 66% (1751) of catch basins has been collected since the summer of 2005. In 2007, Stormwater Utility staff completed work to transfer this information into a digital format using ArcGIS software. All records are now kept digitally and are available upon request.

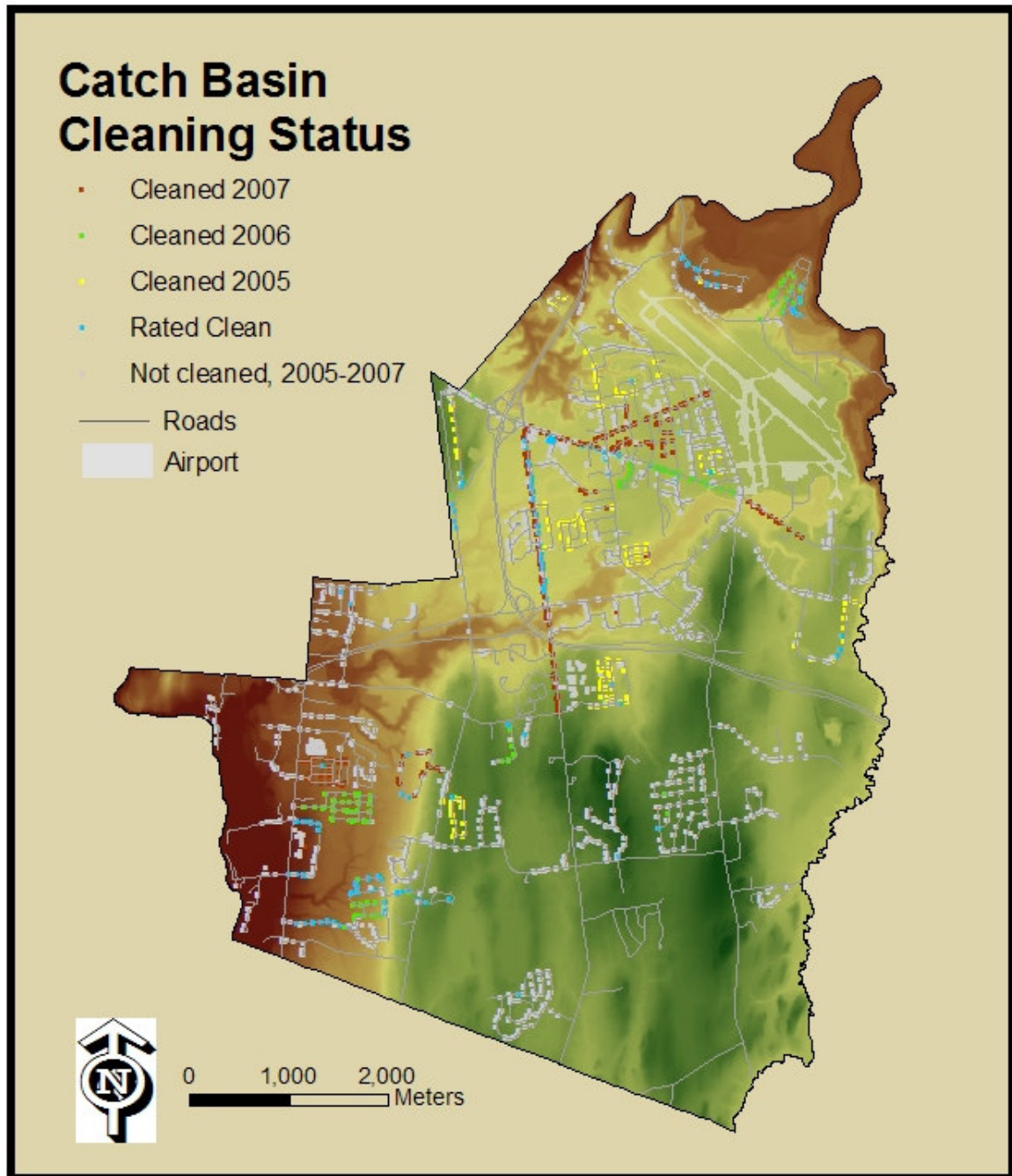


Figure 2 – Catch Basins That Have Been Cleaned Since July 2005

Training Municipal Staff**Status:** Ongoing

Public Works and Stormwater Utility staff attended training at the CCRPC for construction related erosion prevention and sediment control measures, and the Multi-Sector General Permit.

Additional Actions: In the summer of 2006, Stormwater Utility staff repaired an outfall on Airport parkway that was causing significant downstream erosion. In the summer of 2007, Utility staff repaired an eroding outfall in the Stonehedge neighborhood.

7. Reporting Requirements

Future Plans

Prior to the expiration of the MS4 permit issued in 2003, the City will update its Stormwater Management Plan (SWMP) and prepare a notice of intent to continue coverage under the State's MS4 permit program. Once approved, the City will continue to follow the timeline and procedures laid out in its approved SWMP.

Proposed Changes

There are no changes proposed to the Stormwater Management Plan at this time. The City is currently reviewing its SWMP and expects the new plan to be approved by ANR in March of 2008. The City will notify ANR in the event that changes are proposed.

Reliance on Other Entities

The City does not rely on another government entity to satisfy its permit obligations, other than support provided by the RSEP.

Signatures

This report was prepared by Tom DiPietro, Stormwater Superintendent.

Thomas J. DiPietro, Stormwater Superintendent

Date

Signed:

Charles E. Hafter, City Manager

Date

Appendix A - Marketing Partners Annual Report & 5 Year Report

Chittenden County Regional Stormwater Educational Program Annual Review: 2006- 2007 Program Year Summary

During the 2006-2007 program year (March 10, 2006 - March 9, 2007), RSEP built on its previous efforts by expanding the media reach and toolbox of materials for its public education and outreach campaign. The multifaceted campaign used both paid and unpaid media to educate the public about the effects of stormwater runoff on water bodies and simple steps that the public can take to reduce these effects. Key messages include stormwater runoff and stormwater systems, tips on prevention methods related to pet waste, car washing, fertilizer/chemicals, and home construction erosion or debris. Marketing Partners, Inc. continues to work on contract with RSEP to implement the public outreach campaign.

RSEP accomplished the goals outlined in the 2006-2007 Communication Plan, including:

- Update the Communication Plan identifying goals, modifying strategies and program objectives for the upcoming year.
- Make website updates and enhance website by adding “Science Viewer” to existing Stormville animation, adding more depth and scientific explanation to the content in Stormville. “Science Viewer” content was designed to reach a teen/young adult audience segment with RSEP’s 5 key messages.
- Conduct a paid media campaign throughout Chittenden County in spring 2006 that includes four weeks of print ads in nine community papers, spots airing on three of the top radio stations, highly targeted broadcast television and an eight week schedule of cable television. A fall campaign of an additional four weeks of print, two weeks of radio and four weeks of broadcast completed the 2006 campaign.
- Create increased visibility on stormwater runoff throughout Chittenden County, by partnering with Governor James Douglas’ Clean & Clear Action Plan.
- Compile website and other media visibility tracking data in order to monitor outreach effectiveness. (See reverse side for summary tracking data.)
- Continue to collaborate with partners, such as the Governor’s Clean & Clear Action Plan and public school officials, in furthering stormwater education outreach.
- Create a summary to recap 2006 **calendar year** accomplishments.
- Develop a media campaign for the next program year. The three-week spring flight including print, radio, cable and broadcast television kicks off during “spring clean-up time” (April 2, 2007) and runs every other week through the middle of May. A three-week fall media flight is scheduled during August and September 2007.

Gross Impressions/Audience Reach
Chittenden County Regional Stormwater Educational Program
Annual Review: 2006-2007 Program Year Summary

1. Unpaid Media (Public Relations)

Print: 250,869 (based on circulation reported by media outlet)

Insert: 47,000 (Champlain Water District Report)

TV: 369,000 (based on number of households reported by media outlet)

Web: 446,504 (based on monthly visits reported by media outlet)

Total impressions*: 1,113,373

2. Paid Media

Print: 331,000 (based on circulation reported by media outlet)

TV: 665,500 (gross impressions - based on number of households)

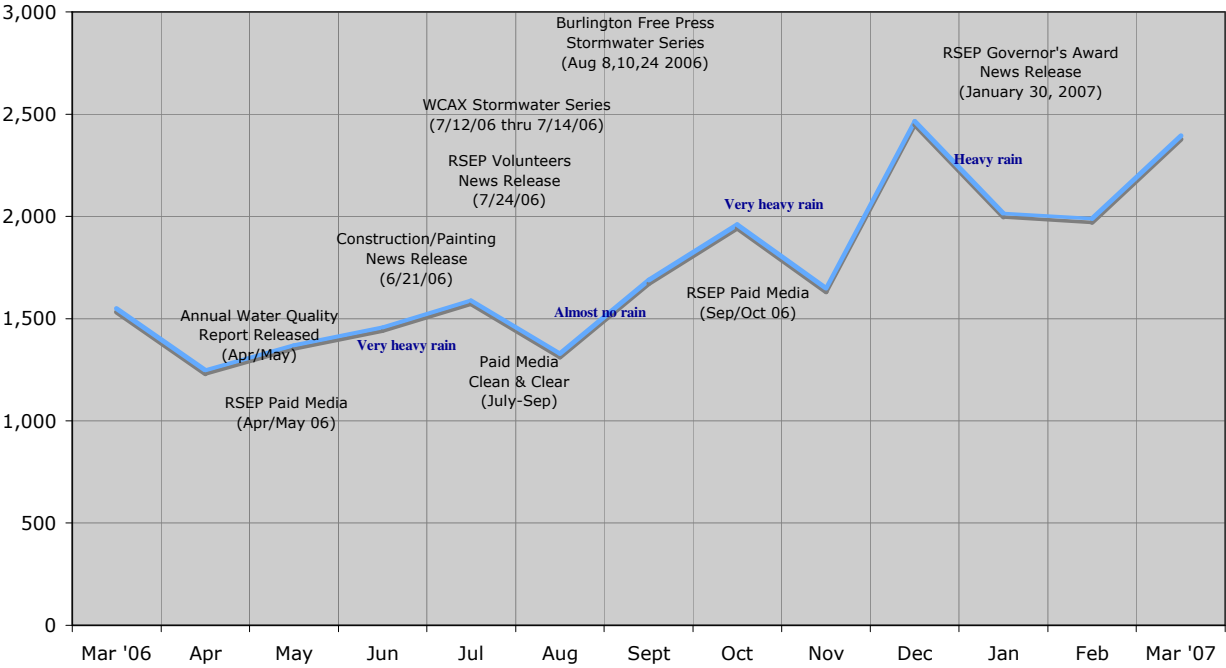
Radio: 186,300 (based on number of listeners age 12+ Mon.-Fri. 6a.m. to Midnight)

Total impressions*: 1,182,800

3. Website

Below is the website impression information for 2006-2007. Website traffic increases are marked in conjunction with paid and unpaid media.

**RSEP Website Visits
March 2006 - March 2007**



*Impressions represent the total number of times a spot is heard/seen, not the number of persons who hear/see it. Web impressions have been decreased to reflect an updated audited online and visitor number for the Burlington Free Press. In 2005-2006, the BFP used 1,300,000; in late 2006 Nielsen Net Ratings showed 148,000.

Chittenden County Regional Stormwater Educational Program Five-Year Program Summary: 2003 – 2008*

Over the Five-Year Program (March 10, 2003 - March 9, 2008*) RSEP developed, expanded and refined a toolbox of materials for public education and outreach. The multifaceted campaign used both paid and unpaid media to educate the public about the effects of stormwater runoff on water bodies and simple steps that the public can take to reduce these effects. Key messages included stormwater runoff and stormwater systems, tips on prevention methods related to pet waste, car washing, fertilizer/chemicals, and home construction erosion or debris. Marketing Partners, Inc. worked on contract with RSEP to implement the public outreach for the five-year campaign.

The RSEP Program identified long-term program objectives, identified messaging and accomplished goals outlined in each of the annual Communication Plans, including:

- In year one produced five television spots, five radio spots, five print ads and fact sheets.
- Identified the need for and developed a website which was enhanced annually by:
 - Creating an interactive animation (“Stormville”) to illustrate the RSEP key messages. Of note, municipalities from across the country requested copies of “Stormville” to add to their own websites.
 - Developing “Science Viewer” to existing Stormville animation, adding more depth and scientific explanation to the content in Stormville. “Science Viewer” content was designed to reach a teen/young adult audience segment with RSEP’s 5 key messages.
 - Adding content pages for educators and middle-school students.
- Developed a five-minute video on stormwater and organized a comprehensive one-hour stormwater panel discussion on Vermont Public Television.
- Developed promotional items included a refrigerator magnet, a bookmark and a mini beach ball.
- Increasing visibility on stormwater runoff throughout Vermont by partnering with Governor James Douglas’ Clean & Clear Action Plan 2003-2006 (Clean & Clear did not run a campaign in 2007).
- Used PR opportunities to earn unpaid media visibility such as results of the 2003 survey, rainy weather, or beach closings when possible.
- Developed and conducted a paid media campaign throughout Chittenden County which included highly targeted cable television, community newspapers and top rated radio stations each year. Findings concluded that adding broadcast television in summer and fall, supported by PR in the summer months increased website traffic. In year four and five, broadcast television was incorporated in order to gain greater reach among the target audiences.
- Reviewed objectives each year using the previous year’s historical data to make refinements in the following year.

* As of November 30, 2007

RSEP Gross Impressions/ Audience Reach

1. Unpaid Media (Public Relations)

Key Finding: Impressions from unpaid media have declined steadily after Marketing Partners initial donations of public relations services on a pro-bono basis.

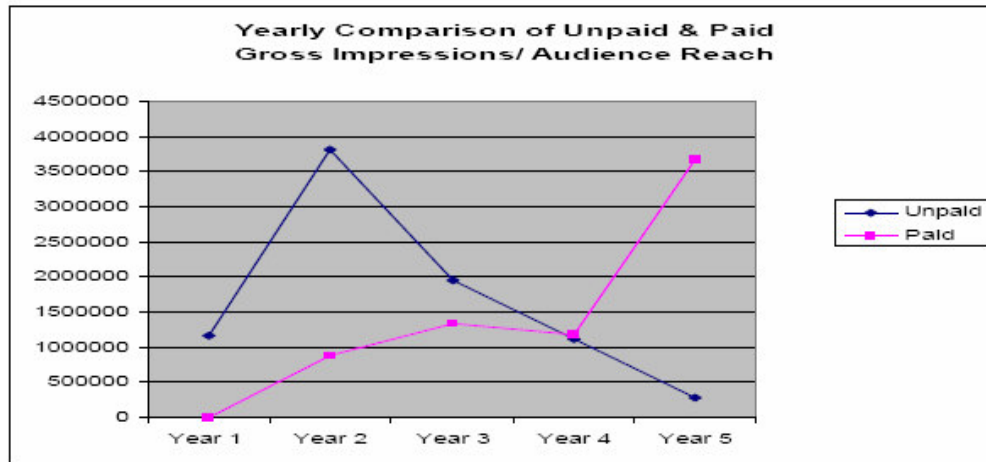
Table 1: Unpaid Media Visibility based on Yearly Impressions *					
	Year 1	Year 2	Year 3	Year 4	Year 5
Print:	777,700	838,900	583,690	250,869	94,590
Online:	123,000	2,566,352	889,008	446,504	148,168
TV:	275,000	369,000	139,000	369,000	0
Radio:	0	0	300,000	0	0
Insert:	0	47,000	47,000	47,000	47,000
TOTALS:	1,175,700	3,821,252	1,958,698	1,113,373	289,758
Notes:	1.) All public relations efforts donated by Marketing Partners, Inc. 2.) Stormwater survey results publicity on WCAX Ch 3. 3.) Four-part stormwater series in Burlington Free Press.	1.) All public relations efforts donated by Marketing Partners, Inc. 2.) Publicity around Smart Water Ways website launch. 3.) Three-part WCAX Ch 3 Stormwater & Lake Champlain Basin series.	1.) After the storm: Stormwater in VT panel discussion on Vermont Public Television.	1.) Three-part WCAX Ch 3 Stormwater series. 2.) Three-part Burlington Free Press Stormwater series. 3.) RSEP Governor's Award publicity.	1.) Media outreach for program year five was focused on paid media with no news releases being sent to media. 2.) Airport display was installed in Burlington International Airport.

2. Paid Media (Advertising)

Key Finding: Whenever additional money has been made available to the program, advertising impressions from paid media have increased.

Table 2: Paid Media Visibility based on Yearly Impressions *					
	Year 1	Year 2	Year 3	Year 4	Year 5
Print:	0	204,700	363,800	331,000	501,500
TV:	0	484,800	682,446	665,500	2,960,640
Radio:	0	199,500	300,900	186,300	214,800
TOTALS:	0	889,000	1,347,146	1,182,800	3,676,940
Notes:	1.) Ads being developed for spring 2004.	1.) First program year running ads.	1.) RSEP received 301B grant.		1.) \$20,000 more for media buy allowed number of purchased spots to double.

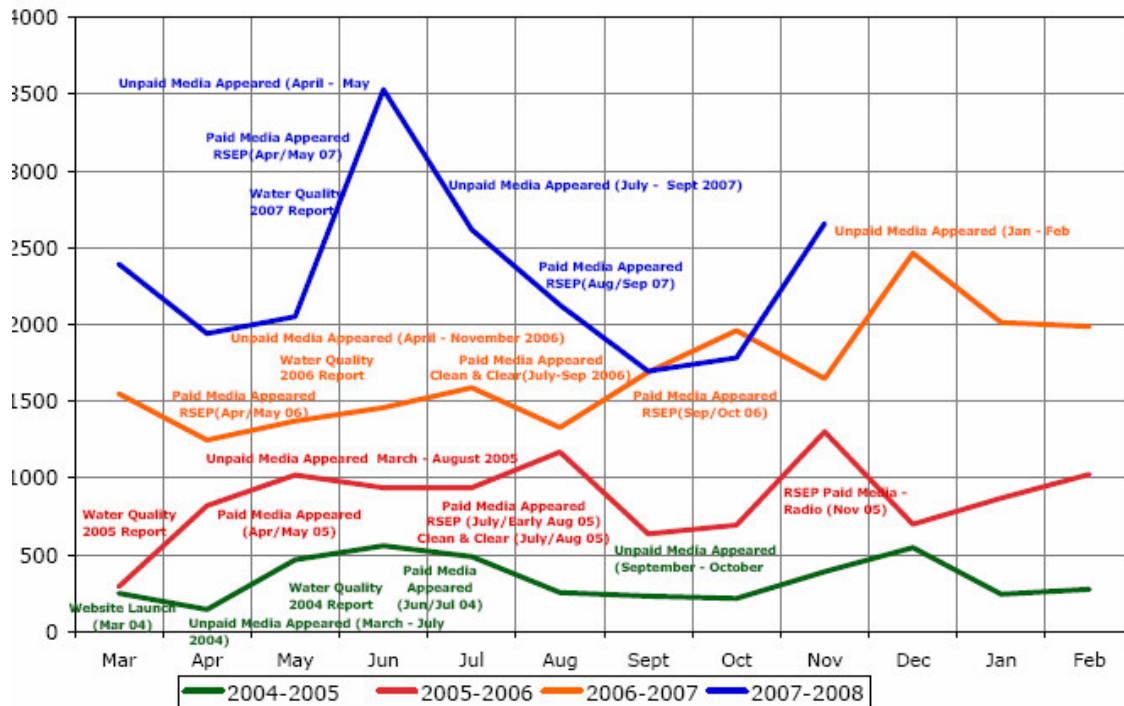
(* Impressions represent the total number of times a spot is potentially heard/seen, not the number of actual persons who hear/see it. Print impressions are based on circulation reported by media outlet. Online impressions are based on monthly visits reported by media outlet and have been decreased to reflect an updated audited online and visitor number for the Burlington Free Press. In 2005-2006, the BFP used 1,300,000; in late 2006 Nielsen Net Ratings audited and showed 148,000. TV impressions are based on number of households reported by media outlet. Radio impressions are based on number of listeners age 12+ Mon-Fri. 6 a.m. to midnight. Insert impressions are based on number reported by the Champlain Water District.)



3. Website

Key Finding: Monthly Smart Water Ways website traffic has increased significantly every program year.

RSEP website visits in conjunction with unpaid and paid media March 2, 2004 - November 30, 2007



Appendix B – South Burlington Projects Disturbing > 1 Acre or Creating > 1 Acre Impervious in 2007

<u>PROJECT NAME</u>	<u>ADDRESS</u>	<u>1 ACRE DISTURBED?</u>	<u>1 ACRE IMPERVIOUS?</u>	<u>COMMENTS</u>
South Village	1840 Spear Street	Yes	Yes	
Farmstand Condos	150 Allen Road	Yes	Yes	
Technology Park Way	124 Technology Park Way	Yes	Yes	
Logic Tech	Thompson Street	Yes	Yes	
Timber Lane addition		No	No	6,000 s.f. addition. Resulting impervious ~1acre
East Mountain View	1100 Hinesburg Road	Yes	Yes	
Indian Creek Stormwater	Dorset Street	Yes	No	Not yet started
Healthy Living	222 Dorset	Yes	No	Project reduced impervious area on this lot
1500 Dorset Street	Dorset Heights	Yes	No	
CEA Building	10 Mansfield View	Yes	Yes	
Larkin Shelburne Rd	388 Shelburne	Yes	No	
Nicklaus Circle	Watertower on Spear Street	Yes	No	
REM Development	19 Gregory Drive	Yes	Yes	
Pizzagalli	185, 193 & 194 Tilley Dr	Yes	Yes	

*Does not include projects that were on the 2006 list and were on-going in 2007

Thomas DiPietro Jr.
South Burlington Public Works
575 Dorset Street
South Burlington, VT 05403

March 18, 2008

James Pease
103 South Main Street
Building 10 North
Waterbury, VT 05671-0408

Dear Mr. Pease,

Enclosed please find the City of South Burlington's annual report for general permit number 3-9014 National Pollutant Discharge Elimination Systems (NPDES) Number VTR 040000 for stormwater discharges from Small Municipal Separate Storm Sewer Systems (MS4). In addition, the enclosed report will serve as the City's five year summary report.

This annual report was prepared following section 5.3 of the NPDES MS4 permit. The report refers to the South Burlington Stormwater Management Plan approved by the State of Vermont. In addition, the report refers to the IDDE report submitted to ANR on January 24, 2008. In addition to a summary of illicit discharges, the IDDE report contains information regarding monitoring and sampling data conducted by the City over the last permit cycle.

If you have any questions, or would like additional information on anything in this report, please feel free to contact me at (802) 658-7961, or at the address above.

Sincerely,

Thomas DiPietro Jr.
Stormwater Superintendent

CC: Bruce Hoar, Director of Public Works
Chuck Hafter, City Manager