

**City of Winooski Annual Stormwater Report
2008
General Permit 3-9014**



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EXECUTIVE SUMMARY

Year number six of the Municipal Separate Storm Sewer Systems (MS4) program in Winooski has been implemented. The following briefly describes the highlights of the six minimum control measures, which are more fully described later in this report. Reporting requirements in Section 5.3 of the MS4 Permit are addressed in this report.

Minimum Control Measure #1 – Public Education and Outreach on Storm Water Impacts

- The Regional Stormwater Education Program (RSEP) continued an advertising campaign and the smartwaterways.org web site benefiting the Chittenden County area.

Minimum Control Measure #2 – Public Involvement/Participation

- Winooski's annual Public Participation requirement involved the Winooski Environmental Leadership Board (WELB), the Parks and Grounds staff, and several Winooski citizen volunteers. Our public involvement project was maintenance of several public rain gardens. The WELB also continued with regular meetings, helped with Green Up Day, and began a coliform sampling program at Gilbrook Reservoir.

Minimum Control Measure #3 – Illicit Discharge Detection and Elimination

- Illicit Discharge Detection and Elimination work continued in Winooski. Most of the major outfalls were sampled. The IDDE Ordinance is in effect as part of the overall Stormwater Ordinance which was adopted by the City Council.

Minimum Control Measures #4 and #5 - Construction Site/Post- Construction Storm Water Control/Management

- Construction activities involving the Downtown Project required a General Stormwater Permit for Construction. The City Engineer was in contact with the State regarding erosion and sediment control, and this permit. An erosion control ordinance has been incorporated in the Stormwater Ordinance now in effect, along with a checklist for residential projects that involve soil disturbance of any size. These efforts should help the zoning department with enforcement and provide education for the “do it yourselves.”

Minimum Control Measure #6 – Pollution Prevention/Good Housekeeping

- A new street sweeper was purchased in August 2004, which improved the street cleaning efforts. 140+ Catch basins were systematically cleaned, inventoried, stenciled, and information entered into a database. Remedial work was performed on catch basins requiring immediate attention. All existing catch basin filters were replaced. Attending the MS4 Municipal Employees Workshop @ the CCRPC office, and other stormwater seminars through out the year fulfilled training by DPW staff.

Minimum Control Measure #2 - Public Involvement and Participation



Gilbrook Reservoir and Natural Area

The Winooski Environmental Leadership Board (WELB) went through a loss of membership this year, due to members moving out of the area. A spring member drive is scheduled for 2009.

The WELB led some stream clean-up efforts on Green-up Day. 1 pick-up truck load of debris was eliminated. 140 stormwater catch basins were stenciled this year. Citizens and Parks and Rec. summer campers helped maintain and revitalize the public rain gardens near Landry Park.

Status of Compliance (5.3.1)

Schedule	ID #	Best Management Practice	Status
Year 5	2-5	WELB maintained and active	Done
Year 4	3-5	Storm Drain Project Stencil > 20%	Done
Year 4	4-5	Conduct Stream Clean Up	Done

Minimum Control Measure #3 - Illicit Discharge Detection and Elimination

Over the past several years, the City has undertaken a proactive approach to eliminating Winooski's Illicit Discharges. In 2000, the EPA funded a project that involved E-coli and DNA testing of Winooski's major stormwater outfalls. Since that time, Winooski has revisited the problem outfalls and eliminated several Illicit Discharges (see annual report from 2004) through the use of Optical Brightener Monitoring (OBM). This testing procedure has proven to be simple and cost effective at identifying any IDDE containing laundry detergent, a marker for "human" sources. This method is capable of detecting sewer seeps and leaks as well as laundry hook ups, provided there is laundry detergent present. Over the years, Winooski found it much harder to locate illicit discharges, as the discharges appear to be more indirect and intermittent. Last year the City monitored most of it's major outfalls, and I am pleased to announce, we only found one *possible* 'hit' on one of our Winooski River outfalls. This was found late in the season and further investigation is scheduled after spring run-off 2009.

Winooski recently updated its detailed stormwater map with the help of Grassroots GIS (Chuck and Judy Bond). The map was originally completed in 2003, and is one of the more detailed stormwater maps in the area. As Winooski cleans and further inventories the stormwater system, any field corrections noted will be updated yearly. The map also has layers of data on infrastructure that are updated continuously. Winooski recently purchased the newest edition of our GIS program. Further updates were noted during catch basin cleaning, and they were entered into the database in May 2008.

Lastly, Winooski has formally adopted a Stormwater Ordinance with, amongst others, an IDDE section based on model ordinances and other ordinances, which were reviewed. At least one enforcement action has already occurred for this ordinance.

Status of Compliance (5.3.1)

Schedule	ID #	Best Management Practice	Status
Year 5	1-5	Update Stormwater Map	Done
Year 5	2-5	Complete IDDE summary	In Progress

Minimum Control Measures # 4 and #5 - Pre and Post Construction Site Stormwater Management

The Winooski Development Project 1st phase is complete, and the 2nd and 3rd phases are well under way. The City Engineer has identified and reported construction activities to the State concerning Construction General Permit number 3161-9001 issued May 19, 2004 for large construction sites. Except for permit # 3161-9001, there were no other construction activities, large or small, by the city or privately, which were greater than or equal to one acre of disturbance. The city has adopted an Erosion Control Ordinance as part of the overall Stormwater ordinance, as well as a checklist to be filled out when the zoning department issues small construction permits. This checklist was modeled from the City of Burlington’s erosion and sediment control checklist. The city adopted the ordinance this year and has implemented the checklist.



Figure 1: Erosion controls in place at Barlow Place construction site

Status of Compliance (5.3.1)

Schedule	ID #	Best Management Practice	Status
Year 5	1-5	Identify and report Const. activities	Done
Year 5	2-5	Assist the State in inspecting permitted sites	Done
Year 5	3-5	Properly permit City construction activities	Done
Year 5	5-5	adopt an erosion control ordinance	Done

Minimum Control Measure #6 - Pollution Prevention/Good Housekeeping for Municipal Operations

The Water Pollution Control and the Public Works Departments completed their efforts to clean, stencil and inventory all publicly owned catch basins in the city. In 2008, over 140 catch basins were cleaned. The city will start 2009 at the step two of the cycle and work eastward to continue with the goal of 20% or more catch basins cleaned per year as outlined in the Stormwater Management Plan. The 17 catch basins that have storm drain filters were maintained, with all filters being replaced both spring and fall this year. Of these 17 catch basins, 14 are in the Morehouse brook watershed, 2 are at the City hall parking lot, and 1 is located at the wastewater facility.



WPCD staff cleaning and stenciling catch basins

Street sweeping efforts continued spring through fall, with the new street sweeper that we bought in August 2004. This regenerative air type sweeper picks up finer particulates from the street in comparison to the older mechanical version. The entire 38 curb miles of the City were swept at least four times this year, with targeted, high priority areas (Mallets Bay Ave and the downtown construction area) being swept once a week, spring

through fall. Information on exact sweepings volume was not available from the Public Works department.

Training continued for city staff, most notably, through a workshop organized by the RSEP.



The City of Winooski's regenerative street sweeper


Status of Compliance (5.3.1)

Schedule	ID #	Best Management Practice	Status
Year 5	1-5	Clean and inventory Catch Basins >20% yr	Done
Year 5	2-5	Complete CB inventory in MS4 area	Done
Year 5	3-5	Train City Staff	Done
Year 5	5-5	Sweep City Streets Spring & Fall	Done

5.3.3 Looking ahead, we will continue following the schedule as outlined in our pending stormwater management plan.

5.3.4 There are no major changes proposed to our Stormwater Management Plan at this time. We will notify the director in the event we propose or amend changes to our plan.

5.3.5 We are not relying on another government entity to satisfy our permit obligations, other than the RSEP program.

This report was prepared by Erik Bailey,  WPCD Superintendent

6.7 Signatory requirement – Original NOI, Principal executive officer

This report approved by George Cross,  Interim City Manager