

MCM 6: Pollution Prevention and Good Housekeeping for Municipal Operations

The main goal of the pollution prevention and good housekeeping program is to reduce stormwater runoff pollution from the Town's day-to-day operations. The Town continues to evaluate its facilities and also provide education and training programs that will educate Town employees about pollution prevention and hazardous waste. The programs that continue to be established to meet this measure are listed below.

BMP 6-1. Storm Sewer Systems Maintenance Program

The Town will continue to provide storm sewer system maintenance.

BMP 6-2. Public Street Sweeping and Leaf Collection Programs

The Town will continue with its street sweeping and leaf collection programs.

BMP 6-3. Enhanced Training Program for Town Employees

The Town has and will continue to develop and implement biennial training for applicable employees in (1) recognition and reporting of illicit discharges; (2) good housekeeping, pollution prevention and spill control practices for, (a) road, street and parking lot maintenance, (b) maintenance and public works facilities, and (c) greenway/civic facilities; (3) spill response by emergency response employees; (4) herbicide application training when applicable; and (5) contractor oversight for environmental compliance.

BMP 6-4. Household Hazardous Waste Event

The Town will continue to participate in Household Hazardous Waste Collection events to help citizens dispose of household materials that could be hazardous to dispose of in landfills

BMP 6-5. Standard Operating Procedures

The Town has developed and implemented the Standard Operating Procedures (SOPs) for daily operations and maintenance activities that have a potential of discharging pollutants directly or with stormwater runoff into the MS4. SOPs will be used in training activities.

BMP 6-6. Stormwater Pollution Prevention Plans (SWPPPs) for Municipal Facilities

The Town will identify all high-priority facilities that have a high potential to discharge pollutants in stormwater. Stormwater Pollution Prevention Plans (SWPPPs) will be prepared, implemented, and maintained. SWPPPs will be used in training activities.

BMP 6-7. Nutrient Management Plan

The Town will identify any Town-owned land where nutrients are applied to a contiguous area of 1 acre or more. Any NMP will be implemented and maintained.

BMP 6-1. Storm Sewer Systems Maintenance Program

Goal:

The goal of this BMP is for the Town Public Works Department to continue to actively maintain the Town's storm sewer system. Keeping the storm sewer system properly maintained is very important for the Town because it keeps the regulated storm sewer working as designed, minimizing the potential for flows to surcharge or surpass the capacity of the regulated storm sewer system. The maintenance crews also have the potential of discovering illicit connections and additional areas where hazardous waste may be entering the regulated storm sewer system.

Measurable Goals:

The success of this BMP will be measured by the continuation of this program and the increase in total value of improvements that have been completed to maintain the storm sewer system. Public Works had two construction crews with a total of 6 employees. These crews perform a large variety of duties including installation of storm and sewer piping and infrastructure, repair of damaged structures, emergency response to flooding problems, storm drain structure cleaning and mapping along with other Town storm drain system maintenance.



This year 34 maintenance and improvement projects were completed, resulting in the following:

- Total storm drain structures mapped: 0
- Total storm drain structures inspected: >50
- Total storm drain structures improved: 2
- Total storm drain structures replaced: 3
- Small projects completed: 5
- Number of emergency projects: 3
- Total feet of pipe installed: 300
- Total feet of open/rip rap channel improved: 15

The following table summarizes the Public Works Department's total expenditures for labor, materials, and equipment to maintain the stormwater system to correct deficiencies. A total of 3,810.5 labor hours were spent on the storm sewer systems maintenance and repair. The value of these improvements was estimated to be \$222,502.17.

Reporting Period	Work Hours	Total Labor	Materials	Total Equipment	Total Expenditures
2013 - 2014 (Yr One)	1,870	\$52,968.51	\$12,214.45	\$21,988.53	\$87,717.49
2014 - 2015 (Yr Two)	2,553	\$74,369.27	\$21,785.81	\$30,177.93	\$143,506.56
2015-2016 (Yr Three)	2,000	\$54,283.80	\$27,035.33	\$27,035.33	\$106,185.75
2016-2017 (Yr Four)	3,810.5	\$105,716.27	\$70,214.84	\$46,571.06	\$222,502.17

TMDL Consistency:

This program is responsible for maintaining the regulated storm sewer system. This program involves cleaning up storm inlets, fixing eroded areas around storm drains and inlets to minimize sediment being eroded and washed into channels and streams (SED). This program also increases the potential for discovering illicit connections to the storm drain system (EC/FC).

Evaluation and Modification:

No changes are planned for this BMP, the Town will continue to maintain this program of maintaining and repairing its storm sewer system to keep the system functioning properly. By being in the field, increases the opportunity to discover potential illicit discharge connections to the storm drain system.

BMP 6-2. Public Street Sweeping and Leaf Collection Programs

Goal:

The goal for this program is for the Town to maintain an effective street sweeping and vacuuming program and the leaf collection program.

Measurable Goals:

The street sweeping program to target weekly sweeping of all primary streets will return the greatest benefit of collecting and thus preventing roadway contaminants, sediment and debris, from entering the stormwater collection system. Other streets are swept bi-weekly or at three week intervals. This continues to optimize both the use and effectiveness of the Town single street sweeper and achieves desired results.

The leaf collection program, which is normally done in the months of November and December, also minimizes leaf and yard waste from entering the stormwater collection system. Sweeping frequency is impacted by inclement weather and equipment downtime. The total expenses on wages, and equipment cost of street sweeping program was \$127,084.64 and the total expense of the leaf collection program was \$22,977.34. The amount of debris collected by the street sweeping program has also been tracked, which was 68.75 cubic yards.

TMDL Consistency:

The street sweeping program offers the greatest benefit to capture roadway contaminants, debris, and sediment (SED) before entering the Town's storm sewer collection system. The leaf collection program minimizes leaf and yard debris that contaminated with pet waste from entering storm sewer system (EC/FC).

Reporting Period	Street Sweeping Program	Fall Leave Collection Program
2013 – 2014 (Year One)	\$152,693.91	\$23,666.17
2014 - 2015 (Year Two)	\$162,915.46	\$17,173.55
2015 -2016 (Year Three)	\$147,443.25	\$19,727.18
2016-2017 (Year Four)	\$127,084.64	\$22,977.34

Evaluation and Modification:

No changes are planned for this BMP; the Town will continue to maintain the street sweeping program and the leaf collection program. This program of collections of roadway contaminants, sediment, debris, leaf, yard waste, prevents them from entering the Town's storm sewer collection system.

BMP. 6-3. Training Programs for Town Employees

Goal: The goal of this BMP is to develop and maintain the following training included in our stormwater management plan: recognition and reporting of illicit discharges, good housekeeping/ pollution prevention/spill control and Standard Operating Procedure training for all appropriate employees.
For Year Four reporting:

Recognition and Reporting Illicit Discharges

Applicable field personnel received training in the recognition and reporting of illicit discharges. This training video was approximately 30 minutes in length and was followed up with a discussion on possible findings/questions. Training was conducted on February 23, 2017 for Public Works employees; other Town personnel completed the training independently. Total number of Town of Vinton employees trained is: 89

Good Housekeeping, Pollution Prevention and Spill Control Practices

Employees that perform road, street, and parking lot maintenance, or are employed in and around maintenance and public works facilities and at recreational facilities received training in good housekeeping and pollution prevention practices. This training video takes approximately 1 hour. Good Housekeeping and PPP training was conducted on February 23, 2017 for Public Works employees; other Town personnel completed the training independently. Total number of employees trained: 92

NOTE: All employees who were required to take this training were required to read and follow the Town's Standard Operating Procedures (SOPs). These procedures were designed to eliminate or minimize pollutant discharges in stormwater. SOP training was conducted on February 23, 2017 for Public Works employees. Total number of employees trained is : 81

Contractor Oversight for Environmental Compliance

Supervisors who oversee Contractors that perform work for the Town or employees involved in developing contracts for Contractors took this training. The training explains that all Contractors must have their own written good housekeeping and pollution prevention program, or they must comply with the Town's written policies and SOPs. Town employees who oversee Contractors working for the Town must ensure compliance by Contractors. This training video takes approximately 30 minutes. Total number of employees trained is : 7

Measurable Goals: The Deputy Director of Stormwater/General Services will be responsible to ensure the Town employees receive environmental awareness and management training and keeping record of the training programs provided, number, and name of employees attending the training programs.

TMDL Consistency: This program makes sure that all Fire and Rescue personnel maintains basic hazardous waste training to prevent mishandling of hazardous materials in ways that could be detrimental to the environment. The program is also responsible for education Town employees on environmental awareness and management training. This program will train every employee to be the eyes and ears of pollution prevention. This will increase the likelihood that any potentially hazardous situation will be brought to the attention of a supervisor and adequately addressed (EC/FC, SED).

Evaluation and Modification: The Town considers this BMP to be successful and proposes to continue with this program. The Town will continue the pollution prevention and environmental awareness training for all Town employees. The total number of new employees to receive training will be documented in addition to the total number of employees trained to date.

BMP 6-4. Household Hazardous Waste Collection Event

Goal: The goal of this BMP is to encourage and identify strategies and events to help citizens dispose of household materials and waste that could be hazardous to dispose of in bulk landfills.

Measurable Goal: A permanent household hazardous waste facility is continued to be made available at the Roanoke Valley Resource Authority (RVRA). The facility is open on the third Saturday of each month, giving citizens in the Roanoke Valley opportunities to dispose of their hazardous materials year-round rather than during three regional collection events offered in the past. For FY 2016-2017, RVRA collected 1,325 gallons of oil, 0 batteries, and 3,581 gallons of latex paint from 666 residential households from Roanoke County, City of Roanoke, and Town of Vinton.

TMDL Consistency: Currently there is no known benefit that this BMP will have on any TMDL wasteload allocations. However, this BMP will have a beneficial effect on stream water quality.

Evaluation and Modification: The Town considers this BMP to be successful and proposes to continue with the funding to keep the monthly collection at the RVRA facility and to provide staff during the drug take back events. This monthly collection and drug take back events make it easier for citizens to dispose of their household hazardous materials and waste, and their unused prescription drugs. The Town will continue to advertise this monthly hazardous waste collection and drug take back events on its website to increase participation to keep hazardous wastes from being disposed inappropriately into the Roanoke Valley streams and river.

BMP 6-5. Standard Operating Procedures (SOPs)

Goal: To develop and implement standard operating procedures (SOPs) for daily operations and maintenance activities that have a potential of discharging pollutants directly or with stormwater runoff into the MS4. SOPs will be used in training activities.

SOPs are designed to prevent pollutant discharge from (1) daily operations such as road, street, and parking lot maintenance, (2) equipment maintenance, and (3) the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers.

The SOPs shall be designed to (1) prevent illicit discharges, (2) ensure the proper disposal of waste materials, including landscape wastes, (3) prevent discharge of municipal vehicle wash water into the MS4, (4) prevent discharge of wastewater into the MS4, (5) require use of BMPs when discharging water pumped from utility construction and maintenance activities, (6) minimize pollutants in stormwater runoff from bulk storage areas; (7) prevent pollutant discharge into the MS4 from leaking municipal automobiles and equipment; and (8) ensure that the application of materials, including fertilizers and pesticides is conducted in accordance with the manufacturer's recommendations.

Measurable Goal: As of April 2014, the Standard Operating Procedures have been developed. Town's employees have been informed of the SOP that has been developed in April 2014. The Town SOP can be accessed by all employees on the T:drive in a shared folder. Additionally, a paper copy the SOP will be kept at needed facilities and maintained by the Town's appropriate personnel.

TMDL Consistency: This program will train every employee to be diligent on their daily operation to minimize pollutions being discharged from their daily operations (EC/FC, SED).

Evaluation and Modification: The SOPs will be implemented by next reporting annual report. The SOPs evaluated and revised as needed.

BMP 6-6. Stormwater Pollution Prevention Plans (SWPPPs) for Municipal Facilities

Goal: To identify municipal facilities which have a high potential to discharge pollutants and provide SWPPPs for them. Town of Vinton will identify all high-priority facilities that have a high potential to discharge pollutants in stormwater. Stormwater Pollution Prevention Plans (SWPPPs) will be prepared, implemented, and maintained. SWPPPs will be used in training activities as a part of the SOP training, where appropriate.

Measurable Goal: All town high-priority facilities have been identified and a time-line to prepare each SWPPP has been established.

TMDL Consistency: SWWP will prevent the discharge of pollutants from town facilities into the waterways.

Evaluation and Modification: All necessary SWPPPs shall be completed by the end of permit year five. The SWPPPs shall be maintained thereafter.

BMP 6-7. Nutrient Management Plan (NMP)

Goal: To ensure that excessive nutrients are not being applied to Town-owned lands.

Measurable Goal: All Town-owned lands where nutrients are applied to a contiguous area of 1 acre or more have been identified. Based on the analysis, the Vinton War Memorial Facility was the only facility where a NMP is required, which was prepared by a Certified Nutrient Management Planner, Robert Habel, CNMP, in June 2015, and approved by VA Department of Conservation and Recreation (DCR) on June 22, 2015. The NMP has been submitted as a separate document in October 1, 2015.

TMDL Consistency: NMP aims to limit the amount of nutrient rich runoff reaching the waterways by following a site-specific, agronomical and environmentally sound NMP prepared by a Certified Nutrient Management Planner (EC/FC, SED, and Nutrient).

Evaluation and Modification: The private landscaping company that maintains the Vinton War Memorial Facility has been given a copy of the NMP. Additionally, they are to keep track with the "Application Worksheets" and "Records/References" which are provided with the NMP.
Nutrient Application Worksheet and