

**TOWN OF CHRISTIANSBURG
STORMWATER MANAGEMENT PROGRAM
ANNUAL REPORT FOR 2012-2013
NPDES PHASE II: SMALL MS4 (MUNICIPAL SEPARATE STORM SEWER SYSTEM)
VPDES PERMIT NO. VAR 040025**



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Prepared For:
MR. KIP FOSTER
WATER PERMITS MANAGER
DEQ Blue Ridge Regional Office
3019 Peters Creek Road
Roanoke VA, 24019

Prepared By:
TOWN OF CHRISTIANSBURG
ENGINEERING DEPARTMENT
100 East Main Street
Christiansburg, Virginia 24073
(540) 382-6120
(540) 381-7238 FAX

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The following is a summary of the Six Minimum Control Measures that the Town of Christiansburg has implemented in accordance with the Town's MS4 Program Plan. This report covers the period July 1, 2012 – June 30, 2013.

Minimum Control Measure No. 1: Public Education and Outreach

A. BMP 1.1 : Stormwater Webpage

Annual Goals for Reporting Year: Evaluate the stormwater webpages for content and design. Update as needed.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. The webpages have been evaluated for content and design and have been deemed sufficient. The webpage is viewable at: <http://www.christiansburg.org/index.aspx?nid=148>.

Next Year's Annual Goals: Evaluate the stormwater webpages for content and design. Update as needed. (BMP number will be changed to 1.2 for future reports.)

B. BMP 1.2 : Educational Mailers

Annual Goals for Reporting Year: Create new mailer or update a previous mailer. Send to all addresses in Christiansburg. Record any feedback and file.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. A copy of the 2012-2013 mailer is included as Appendix A. The Town had approximately 13,000 copies printed and mailed. No feedback was received during the reporting period.

Next Year's Annual Goals: Create new mailer, or update a previous mailer. Send to all addresses in Christiansburg. Record any feedback and file. (BMP number will be changed to 1.3 for future reports.)

C. BMP 1.3 : Model Stormwater System

Annual Goals for Reporting Year: Maintain BMPs and signs.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. The bioretention filters and signage were maintained as needed. Photos of the Bioretention East and the information sign are included as Appendix B and photos of the Bioretention West and its informational sign are included as Appendix C.

Next Year's Annual Goals: Maintain BMPs and signs. (BMP number will be changed to 1.5 for future reports.)

D. BMP 1.4 : Storm Drain Labeling

Annual Goals for Reporting Year: Place or paint message on 100 inlet structures. Update GIS database to reflect inlets' status as 'marked'.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. The Town installed 100 storm drain markers during the reporting year. The GIS database was updated as well.

Next Year's Annual Goals: Place or paint message on 100 inlet structures. Update GIS database to reflect inlets' status as 'marked'.

New BMP for MCM 1 Public Education and Outreach

E. BMP 1.1 Public Education and Outreach Plan

Objective: Develop and execute a Public Education and Outreach Plan (PEOP) for Town's MS4. The PEOP shall detail the stormwater education and outreach messages to be presented and the delivery methods. The messages shall include at a minimum 3 high-priority water quality issues including TMDLs. The PEOP shall estimate target audience size and target at least 20% of each high-priority water quality issue's target audience annually. The PEOP shall be revised and updated as necessary based on stormwater quality issues, messages, and delivery methods.

Next Year's Annual Goals: Develop initial draft of PEOP. Provide meeting for the general public to review and comment on the PEOP. Produce final PEOP.

MCM 1 Status of Compliance with Permit Conditions

For the 2012-2013 reporting year, MCM 1 was in compliance with the permit conditions. The Town executed a public education program that distributed public education materials and conducted public outreach to inform and educate the general public about stormwater impacts. The aim of the public education program was to increase individual, household, public employee, business and general public knowledge about ways to reduce stormwater pollution and associated hazards from illegal dumping. This was in compliance with the Town's MS4 Program Plan and permit conditions.

MCM 1 Assessment of the Appropriateness of BMPs

The four BMPs for this category were appropriate for MCM 1. The public education program used various methods and means to target a diverse group of audiences. The BMP 1.1 Stormwater Webpage provided self-serve education material for anyone on the internet. The BMP 1.2 Stormwater Mailer provided information to all Christiansburg addresses and P.O. Box holders. The BMP 1.3 Model Stormwater System continued to serve as a full-size functioning model stormwater quality system. The BMP 1.4 Storm Drain Labeling practice reached into individual neighborhoods providing a No Dumping message on MS4 inlets. These various BMPs were

appropriate for providing stormwater education for the Town of Christiansburg's MS4.

Progress towards achieving measurable goals for MCM 1

The measurable goals were achieved goals for MCM 1. The Town website, including a TMDL fact sheet, was maintained to provide basic stormwater education for website users. The stormwater mailer was sent to all business, residential, and commercial addresses and P.O. Boxes in Christiansburg, requiring the printing and mailing of over 10,000 mailers. The model stormwater system, continued to serve as a full-size functioning model BMP, and an additional 100 storm drain structures were marked with No Dumping messages. All these public education items made information about stormwater, stormwater pollution, and stormwater pollution prevention readily available to everyone within the Town of Christiansburg, which were the measureable goals for MCM 1.

Minimum Control Measure No. 2: Public Involvement / Participation

A. BMP 2.1 : TMDL Sessions

Annual Goals for Reporting Year: Hold at least one TMDL session. Record discussion topics and file.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. On 27 June 2013 a TMDL Meeting was held at the Christiansburg Town Hall at 5:30 PM. The meeting was an opportunity for Town and DCR staff and to engage in dialog with citizens on the TMDL's for streams located in the Town's corporate limits. The Crab Creek TMDL was the focus of the presentation in light of the upcoming Watershed Implementation Plan. A copy of the meeting advertisement and presentation included as Appendix D.

Next Year's Annual Goals: This BMP is being combined with BMP 2.2, and renamed to **BMP 2.2 Participate in Local Activities**. The annual goal will be to participate in at least 4 local activities. Participation may be via promotion, or sponsorship.

B. BMP 2.2 : Developer / Engineer Stormwater Quality Treatment Design and Construction Information Session

Annual Goals for Reporting Year: Hold at least one Stormwater Quality Treatment Design session. Record discussion topics and file.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. On 25 June 2015 at 10:30 AM, the Town hosted a meeting for our local land development community focusing on stormwater treatment. Included as Appendix E is a copy of the sign-in sheet and meeting advertisement. Ms. Meredith Jones provided a presentation discussing low-impact stormwater management using the Village at Toms Creek (located in Blacksburg) as an example of this type of development. Included as Appendix F is a copy of

her presentation. Mr. Trevor Kimzey of Gay and Neel then presented discussing recent design projects that had sustainable design elements such as permeable paving systems. Included as Appendix G is a copy of his presentation.

Next Year's Annual Goals: This BMP is being combined with BMP 2.1, and renamed to **BMP 2.2 Participate in Local Activities**. The annual goal will be to participate in at least 4 local activities. Participation may be via promotion, or sponsorship.

C. BMP 2.3 : Provide MS4 Annual Report to Town Council

Annual Goals for Reporting Year: Provide MS4 Annual Report to Town Council and general public once the report has been completed

Measurable Goals Achieved for Reporting Year: The measureable goals for this BMP were met; the report was provided to Town Council, and was available for review by the general public.

Next Year's Annual Goals: Announce Annual Report completion and Program Plan updates (if applicable) at Town Council meeting. Provide contact information for Town representative to receive comments.

New BMP for MCM 2 Public Involvement / Participation

D. BMP 2.1 MS4 Program Plan and Annual Reports Maintained Online

Objective: Maintain updated copies of the MS4 Program Plan and Annual Reports on the Town's website. These will be free for viewing and download by anyone.

Next Year's Annual Goals: Provide updated documents on website within 30 days of completion.

MCM 2 Status of Compliance with Permit Conditions

For the 2012-2013 reporting year, MCM 2 was in compliance with the permit conditions. The Town, hosted a TMDL information meeting that was advertized, and open to the general public. The Town also hosted a Developer / Engineer Stormwater Quality information meeting. Also, the Town provided the MS4 Annual Report to Town Council. This was in compliance with the Town's MS4 Program Plan and permit conditions.

MCM 2 Assessment of the Appropriateness of BMPS

The three BMPs for this category were appropriate for MCM 2. The BMP 2.1 TMDL Session involved the general public with the Town's MS4 Program and provided specific information relating to TMDLs. The BMP 2.2 Developer / Engineer Stormwater Quality Treatment Design and Construction Information Session served to improve the dialog with the local design community about various stormwater quality design and construction issues. The BMP 2.3 Provide MS4 Annual Report at Town Council Meeting also involved the public at large by providing this report to

Town Council and the general public. Accordingly, these various BMPs were appropriate for providing public involvement / participation opportunities for the Town of Christiansburg's MS4.

Progress towards achieving measurable goals for MCM 2

The measurable goals were achieved goals for MCM 2 during the reporting year. The Town provided stormwater and TMDL information to all who attended the TMDL event. The Town also provided stormwater information to all who attended the Developer / Engineer Stormwater Quality meeting. Finally, the MS4 Annual Report was provided to Town Council, and was available for review and inspection by the general public. All these BMPs promoted public involvement / participation, which were the measurable goals for MCM 2.

Minimum Control Measure No. 3: Illicit Discharge Detection and Elimination

A. BMP 3.1: Storm Sewer System Mapping

Annual Goals for Reporting Year: Maintain GIS database, and update the database whenever new facilities are accepted as Town infrastructure.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. The Town's GIS database was maintained and updated throughout the course of the year. As new infrastructure was installed and accepted by the Town, it was added to the GIS database.

Next Year's Annual Goals: Maintain GIS database, and update the database whenever new facilities are accepted as Town infrastructure or become known.

B. BMP 3.2 : Illicit Discharge Detection and Elimination Plan

Annual Goals for Reporting Year: Complete written IDDE Plan (the plan and procedures had been developed and implemented, but not fully documented). Continue to operate within the IDDE Plan. Inspect at least 50% of the Town's MS4 outfalls. Create and maintain records of any illicit discharge events.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year met. The written IDDE plan was completed during the reporting year. This is included as Appendix H. Also, the Town inspected 100% of the known MS4 outfalls, and those inspections are included as Appendix I. Illicit discharge records were created and maintained as needed.

Next Year's Annual Goals: Continue to operate within the IDDE Plan. Create and maintain records of any suspected illicit discharge events.

C. BMP 3.3 : Inflow and Infiltration Reduction Program

Annual Goals for Reporting Year: Continue to develop and execute the I&I Reduction Program. This will include sanitary sewer manhole inspections, sanitary sewer pipeline inspections, and flow monitoring.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. The Town continued to execute the I&I Reduction Program. The Town performed sanitary sewer manhole inspections, sanitary sewer line inspections, and flow monitoring.

Next Year's Annual Goals: Continue execution of I&I program. (BMP number will be changed to 3.4 for future reports.)

New BMP for MCM 3 Illicit Discharge Detection and Elimination

D. BMP 3.3 Dry Weather Outfall Screenings

Objective: Perform dry weather field screenings looking for possible illicit discharges. When a suspected illicit discharge is identified, investigate in accordance with the Illicit Discharge Detection and Elimination Plan. Create and maintain records outfall screening records. Perform screening for at least 50 outfalls per year. Prioritize screenings based on infrastructure age, land use, and historical discharges / dumping.

Next Year's Annual Goals: Perform field screenings for at least 50 outfalls per year. Create and maintain outfall screening records.

MCM 3 Status of Compliance with Permit Conditions

For the 2012-2013 reporting year, MCM 3 was in compliance with the permit conditions. The Town continued to update the MS4 mapping, perform outfall reconnaissance inspections on known outfalls and finalized the Illicit Discharge Detection and Elimination Plan (IDDE Plan) in accordance with the MS4 program plan. This plan relies on *Article III. Illicit Discharge* of Chapter 10 of Christiansburg Town Code. This article prohibits non-stormwater discharges to the MS4 that are not otherwise called out as exempt. The Town also continued to execute the Inflow and Infiltration Reduction Program. These actions were in compliance with the Town's MS4 Program Plan and permit conditions.

MCM 3 Assessment of the Appropriateness of BMPs

The three BMPs for this category were appropriate for MCM 3. By continuing to update the GIS database of MS4 infrastructure, BMP 3.1 Storm Sewer System Mapping identifies and provides the location of Town facilities for IDDE activities. The BMP 3.2 Illicit Discharge Detection and Elimination Plan identifies and address non-stormwater discharges to the MS4 system. The BMP 3.3 Inflow and Infiltration Elimination Program will continue to execute the sanitary sewer I&I Reduction Program. This will work to reduce sanitary sewer peak flowrates and eliminate overflows. Together, these three BMPs were appropriate for MCM 3.

Progress towards achieving measurable goals for MCM 3

The measurable goals were achieved goals for MCM 3 during the reporting year. The stormwater mapping updates allowed the Town to effectively focus on MS4 infrastructure for IDDE activities. IDDE Plan was formally completed and the Town

operated in accordance with the plan. During the reporting year, 1 suspected illicit discharge event occurred. This event was investigated and appropriate records were generated. Furthermore, the Town performed outfall reconnaissance on 100% of known MS4 outfalls (MS4 Program plan only required 50% of outfalls) demonstrating that the Town is actively seeking to locate and address non-stormwater discharges. The result of these efforts is that the Town achieved the measurable goals for MCM 3 of prohibiting, preventing, and causing the termination of illicit discharges to the MS4 to the maximum extent practicable.

Minimum Control Measure No. 4: Construction Site Stormwater Runoff Control

A. BMP 4.1 : Construction Site Runoff Control Plan

Annual Goals for Reporting Year: Continue administering ESC Program and reporting disturbed acreage to DCR monthly. Require VSMP permit coverage be acquired prior to issuance of a land disturbing permit.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. The ESC Program continued to operate, the disturbed acreage was reported to DCR on a monthly basis, and the Town required applicable projects to acquire VSMP permit coverage prior to the issuance of a land disturbing permit. The Town received a 12 month extension for VSMP program implementation. Included as Appendix J are the disturbed acreage reports that have been submitted to DCR.

Next Year's Annual Goals: Continue administering ESC Program and reporting disturbed acreage to DEQ monthly. Facilitate submission of ESC complaints from the public. Investigate complaints as needed.

New BMP for MCM 4 Construction Site Stormwater Runoff Control

B. BMP 4.2 VSMP General Construction Permit Inspections

Objective: As an MS4 operator, the Town will become a Virginia Stormwater Management Program Authority in accordance with state regulations. When this occurs, the Town will perform VSMP construction inspections in accordance with Town Code and state regulations. These inspections include checking for compliance with the SWPPP, which includes the ESC, SWM, and Pollution Prevention Plan.

Next Year's Annual Goals: Develop VSMP inspections program.

MCM 4 Status of Compliance with Permit Conditions

For the 2012-2013 reporting year, MCM 4 was in compliance with the permit conditions. The Town continued to operate a DCR approved Erosion and Sediment Control (ESC) program. This program required all land disturbances of larger than 10,000 square feet to occur in accordance with an approved ESC plan. Disturbances

of larger than 1 acre are required to provide documentation of a request for VSMP permit coverage prior to issuance of a local land disturbance permit. This program operates in accordance with *Article I. Erosion and Sediment Control* of Chapter 10 of Christiansburg Town Code and Virginia ESC Law and regulations. The ESC program provided for ESC plan approval, routine site inspections, enforcement, and tracking of land disturbance activities. These activities were reported to Virginia DCR as required.

MCM 4 Assessment of the Appropriateness of BMPs

The BMP for this category was appropriate for MCM 4. The ESC Program addressed the required elements for MCM 4 as provided in the regulations.

Progress towards achieving measurable goals for MCM 4

The measurable goals were achieved for MCM 4 for the reporting year. The Town enforced and updated as needed, the programs and procedures that reduce pollutants in stormwater runoff from land development projects larger than 10,000 square feet.

Minimum Control Measure No. 5: Post-Construction Stormwater Management in New Development and Redevelopment

A. BMP 5.1 : Stormwater Management Ordinance

Annual Goals for Reporting Year: Continue to review and approve plans in compliance with Town Code. Review and update Town Code to ensure compliance with current state law and regulations.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. All new plans approved for development or redevelopment were reviewed and approved in compliance with Town Code. Also, the process to revise Town Code for compliance with the new stormwater regulations was started with the preparation of draft revised Town Code, for submission with VSMP program information.

Next Year's Annual Goals: Revise Town Code to ensure compliance with current state law and regulations. Review and approve plans compliant with Town Code. (BMP name will be changed to **Land Development Stormwater Management** for future reports.)

B. BMP 5.2 : Stormwater Management Pond / Water Quality BMP Inspections

Annual Goals for Reporting Year: Inspect all Town-owned stormwater management facilities. Inspect all complete and operational private facilities for which the Town has a recorded maintenance agreement.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. All Town-owned stormwater management facilities were inspected. At the end of the reporting year, there were 17 completed and operational private facilities with Town maintenance agreements. The Town

inspected all 17 facilities. Attached as Appendix K are copies of the completed inspection forms and photographs.

Next Year's Annual Goals: Inspect all Town owned / operated stormwater management facilities. Inspect all facilities for which the Town has a recorded maintenance agreement. Develop written inspection and maintenance procedures. (BMP name will be changed to **Stormwater Management Facility Inspections** for future reports.)

MCM 5 Status of Compliance with Permit Conditions

For the 2012-2013 reporting year, MCM 5 was in compliance with the permit conditions. The Town continued to implement and enforce procedures to address postdevelopment stormwater runoff for all land development project disturbing greater than 10,000 square feet. This included requiring BMPs, adequate site design, a maintenance plan and maintenance agreements for regulated projects. The Town also performed BMP inspections for Town facilities and private facilities with maintenance agreements. The Town also began the process to revise Town Code for compliance with the new stormwater regulations. These actions were in compliance with the Town's MS4 Program Plan and permit conditions.

MCM 5 Assessment of the Appropriateness of BMPS

The two BMPs for this category were appropriate for MCM 5. The Town reviewed and approved stormwater management plans that were complaint with *Article II. Stormwater Management* of Chapter 10 of Christiansburg Town Code and Virginia Stormwater Management Law and regulations. These plans included appropriate maintenance plans and long-term maintenance agreements. Furthermore, the Town inspected all Town owned / operated facilities and those facilities which have maintenance agreements. The Town required stormwater management plans for projects disturbing 10,000 square feet or more in an effort to address the various impaired waters draining from Town. This requirement was more stringent than minimum state standards and was appropriate for the 305(b)/303(d) Impaired Waters draining from and downstream of Town. These actions were appropriate for MCM 5.

Progress towards achieving measurable goals for MCM 5

The measurable goals were achieved for MCM 5 for the reporting year. The Town only approved plans with adequate stormwater management components for land development projects larger than 10,000 square feet. The Town inspected all required facilities as laid out in the MS4 Program Plan. This resulted in meeting the MCM 5 measurable goals.

Minimum Control Measure No. 6: Pollution Prevention / Good Housekeeping for Municipal Operations

A. BMP 6.1 : Household Hazardous Waste Collection

Annual Goals for Reporting Year: Participate via advertising and staffing for this event.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. The Household Hazardous Waste Collection event was held 11 May 2013 at the Montgomery Regional Solid Waste Authority facility, just outside of Christiansburg Corporate Limits. The Town advertised for the event and provided personnel to work the event.

Next Year's Annual Goals: Participate via advertising and staffing for this event. (BMP number will be changed to 6.6 for future reports.)

B. BMP 6.2 : Street Sweeping Program

Annual Goals for Reporting Year: Sweep streets on a regular basis and whenever specific complaints are taken for debris or sediment in the roadway.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. All the streets in Town were swept at least once and specific areas were swept when complaints were received. Approximately 448 tons of debris was removed from the streets with the sweeper. Included as Appendix L is a copy of the street sweeping log.

Next Year's Annual Goals: This BMP is being combined with BMP 6.3, 6.4, and 6.5, and renamed to **BMP 6.2 Daily Operation and Maintenance Activities**. The annual goals for this BMP are: Create draft policies and procedures for daily operations and maintenance activities that reduce or prevent stormwater pollution. These activities are expected to include sweeping streets, storing salt indoors, washing public works vehicles in wash bays, and picking up leaves.

C. BMP 6.3 : Leaf Pickup Program

Annual Goals for Reporting Year: Pick up leaves in the fall of the year, beginning after the Town's Fall Clean-up activities. Continue picking up leaves as needed through the winter and spring. Take as many loads as feasible to composting facilities rather than the landfill.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. The leaves were picked up following Fall Clean-up, and they were picked up as needed throughout the winter and spring. A total of 308 loads were picked up totaling approximately 613.5 tons, and the majority (if not all) of the loads were taken to the local composting facility.

Next Year's Annual Goals: This BMP is being combined with BMP 6.2, 6.4, and 6.5, and renamed to **BMP 6.2 Daily Operation and Maintenance Activities**.

D. BMP 6.4 : Stormwater Pollution Prevention Measures in use during Municipal Operations

Annual Goals for Reporting Year: Continue to store salt indoors, use wash bays, and perform at least one employee training session per year. Perform a facilities

inspection at the Public Works complex looking for possible improvement for stormwater pollution prevention practices and procedures.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. The Town continued to store salt in the salt dome and use the wash bays for vehicle washing. Stormwater pollution prevention training sessions were held and 76 Public Works employees attended, as shown by Appendix M, the employee sign in sheets from the training events. Also, an inspection of the public works facilities for stormwater pollution prevention was performed, and three concerns were noted. Attached as Appendix N is a copy of the inspection results memorandum.

Next Year's Annual Goals: Most of this BMP is being combined with BMP 6.2, 6.3, and 6.5, and renamed to **BMP 6.2 Daily Operation and Maintenance Activities.** The employee training portion of this BMP is being moved to **BMP 6.5 Employee Training.**

E. BMP 6.5 : Storm Sewer Cleaning Program

Annual Goals for Reporting Year: Inspect, clean, and verify our storm sewer system in an ongoing manner. As manpower allows, keep a crew detailed to this task.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. The Town cleaned approximately 540 feet of storm sewer piping, 2,438 feet of open channel, 228 stormwater structures, and approximately 4,266 feet of ditch were reconstructed during this reporting year.

Next Year's Annual Goals: This BMP is being combined with BMP 6.2, 6.3, and 6.4, and renamed to **BMP 6.2 Daily Operation and Maintenance Activities.**

F. BMP 6.6 : Town's MS4 Program Updates

Annual Goals for Reporting Year: At the end of the reporting year, perform a general review to ensure permit compliance, and to gauge the effectiveness of the program.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. No major deficiencies were discovered in the program review process.

Next Year's Annual Goals: Perform annual review of the MS4 Program Plan as required in MS4 Permit regulations. Maintain and update the MS4 Program Plan as needed. (This BMP is being renamed and numbered to **BMP 6.1 Annual MS4 Program Plan Review and Updates**)

G. BMP 6.7 Evaluate Properties Owned or Operated by the Town

Annual Goals for Reporting Year: Take samples of runoff from Wades Lane facility and analyze as specified in the General Permit. If the pollutant is discharged at rates above those allowed in the TMDL WLA, develop plans and a schedule to minimize pollutant discharge in a manner consistent with the approved TMDL.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. Samples were taken on February 26th and June 6th 2013. These samples were analyzed for TSS and settleable solids. Copies of the analysis results are included as Appendix O. The pollutant levels were higher than expected, and the Town is planning to produce a new waste soil fill plan with additional ESC measures, to reduce sediment discharge. The Town also installed new ESC measures after the June 6th sample results were received, and photos of this are included as Appendix P.

Next Year's Annual Goals: Identify all high priority municipal facilities. Identify which high priority facilities have a high potential for discharge of excess stormwater pollutants and begin to develop SWPPPs for those facilities. Perform a facilities inspection at the Public Works complex looking for possible improvement for stormwater pollution prevention practices and procedures. (This BMP is being renamed and numbered to **BMP 6.3 Municipal Facility Stormwater Pollution Prevention Plans.**)

H. BMP 6.8 Annual Characterization

Annual Goals for Reporting Year: Estimate the volume of stormwater discharged by the Town's MS4 in units of cubic feet. Estimate the quantity of pollutants contained in that stormwater volume, in units consistent with any TMDL WLA.

Measurable Goals Achieved for Reporting Year: The measurable goals for this reporting year were met. Included as Appendix Q are calculations that estimate the volume of stormwater discharged by the Town's MS4, and the pollutants contained in that stormwater. For the reporting year, the Town's MS4 has released an estimated 25,415,518 cubic feet of stormwater to Crab Creek. This stormwater contained an estimated 41.9 tons of sediment (suspended solids) and 1.23E+10 E. coli cfu. For the reporting year, the Town's MS4 also released an estimated 3,057,041 cubic feet of stormwater to Falling Branch (Roanoke River). This stormwater contained an estimated 5.7 tons of sediment (suspended solids) and 1.59E+9 E. coli cfu. Approximately 2,561,764 cubic feet of stormwater was released to Slate Branch. Because Slate Branch does not have an approved TMDL, the estimated amount pollutants contained in this stormwater will not be stated in this report, but the calculations for these amounts have been performed and are included in Appendix Q.

New BMPs for MCM 6 Pollution Prevention / Good Housekeeping for Municipal Operations

I. BMP 6.4 Nutrient Management Plans

Objective: Create and follow Nutrient Management Plans (NMPs) for applicable Town lands in order to prevent the application of excess nutrients and associated stormwater pollution. Have plans prepared by a certified nutrient management plan writer.

Next Year's Annual Goals: Identify all applicable lands where nutrients are applied to a contiguous area of greater than 1 acre. Begin the development of NMPs for at least 15% of the identified lands.

J. BMP 6.5 Employee Training

Objective: Develop and follow a 5-year Training Plan that provides training to relevant employees in order to prevent stormwater pollution. The training shall include: illicit discharge identification; good housekeeping and pollution prevention for road, street and parking lot maintenance; good housekeeping and pollution prevention for maintenance and public works facilities; good housekeeping and pollution prevention for recreation facilities; and spill response for emergency services.

Next Year's Annual Goals: Develop 5-Year Training Plan. Provide public works stormwater pollution prevention training. Provide summary of emergency services personnel training.

K. BMP 6.7 TMDL Action Plans

Objective: Develop TMDL Action Plans that contain the steps or activities the Town will take to address the assumptions and requirements of TMDL Waste Load Allocations.

Next Year's Annual Goals: Begin development of Action Plans for TMDL streams in Town.

MCM 6 Status of Compliance with Permit Conditions

For the 2012-2013 reporting year, MCM 6 was in compliance with the permit conditions. The Town continued to participate in an annual household hazardous waste collection event, perform employee training, sweep Town maintained streets, perform leaf pickup, perform daily operations in a stormwater conscious manner (store road-salt indoors, use vehicle wash-bays draining to sanitary sewer) clean storm sewers, and perform MS4 Program Plan updates as needed. The Town also completed a public works facility stormwater inspection in accordance with the MS4 Program Plan. These actions were in compliance with the Town's MS4 Program Plan and permit conditions.

MCM 6 Assessment of the Appropriateness of BMPs

The eight BMPs for this category were appropriate for MCM 6. The BMP 6.1 Household Hazardous Waste Collection event collected and properly disposed of hazardous waste that otherwise would have ended up in regular municipal garbage or being illegally dumped. The BMP 6.2 Street Sweeping Program picked up sediment, road grime, trash, and other gross pollutants which would have been washed into the nearest stream, had sweeping not occurred. The BMP 6.3 Leaf Pickup Program picked up leaves and other organic waste in an effort to properly dispose of these residential wastes. The BMP 6.4 Stormwater Pollution Prevention Measures in use during Municipal Operations provided stormwater training for municipal employees, required that road-salt be stored indoors such that it is not exposed to excess precipitation, and required that public works vehicles be cleaned in a wash facility that drains to the sanitary sewer. Also, the BMP 6.5 Storm Sewer Cleaning Program cleaned storm sewer system piping and structures, resulting in gross pollutants not being washed into receiving waters. These good housekeeping items appropriately target municipal operations to prevent unnecessary stormwater pollution. BMP 6.6 Town's MS4 Program Updates required updates as necessary by permit, regulation, or law updates. BMP 6.7 Evaluate Properties Owned or Operated by the Town required the Town to evaluate properties in light of stormwater compliance, which is appropriate for MCM 6. Finally, with BMP 6.8 Annual Characterization, the Town estimated the volume of stormwater and pollutants discharged by the Town's MS4. In total, these BMPs were appropriate for MCM 6.

Progress towards achieving measurable goals for MCM 6

The measurable goals were achieved for MCM 6 for the reporting year. The Town achieved the measurable goals by working to preventing unnecessary stormwater pollution by aiding in the collection and proper disposal of household waste. The Town also prevented unnecessary stormwater pollution by removing excess roadway dirt and sediment, by picking up fallen leaves, and by providing stormwater training for Public Works employees. The Town also performed a public works facility inspection in accordance with the MS4 Program Plan. The Town did update the MS4 Program Plan as needed, evaluate Town properties, and perform an Annual Characterization. These measures resulted in achieving the measurable goals for MCM 6.

2012-2013 MS4 Annual Report 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 gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those person directly responsible for gathering the information, 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.

Wayne O. Nelson

Wayne O. Nelson, P.E.
Director of Engineering and Special Projects
Town of Christiansburg