

**TOWN OF CHRISTIANSBURG  
STORMWATER MANAGEMENT PROGRAM**

**ADDENDUM FOR  
2009-2010 ANNUAL REPORT**

**NPDES PHASE II SMALL MS4  
VPDES PERMIT NO. VAR 040025**



30 May 2013

Prepared For:

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**The following is an addendum to the Town of Christiansburg MS4  
Annual Report for the 2009-2010 reporting year.**

**Minimum Control Measure No. 1: Public Education and Outreach**

**A. Status of Compliance with Permit Conditions**

For the 2009-2010 reporting year, MCM 1 was in general but not complete 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 Town did not get information signs installed at the model bioretention system as contained in the MS4 Program Plan, therefore was not in full compliance with permit conditions. 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.

**B. 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 was constructed and will serve as a full-size functioning model BMP. The information signs for this system were designed but not installed within the reporting year. 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.

**C. Progress towards achieving measurable goals for the MCM**

Substantial progress was made towards achieving the measurable goals for MCM 1. The Town website was maintained to provide basic stormwater education for website users. A TMDL Fact Sheet was added to the webpage that specifically addressed TMDL conditions for streams in town. 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 was constructed, 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. Status of Compliance with Permit Conditions**

For the 2009-2010 reporting year, MCM 2 was not in general compliance with the permit conditions due to manpower constraints. The Town did not hold the planned public

involvement meetings to satisfy the MS4 Program Plan and associated permit conditions, although another public involvement/participation event did occur. However, the Town has since participated in a public event, and is planning to host a training event for the second meeting. The Town participated in the Depot Days event held on 11 May 2013. This event was held in the Cambria area of Town adjacent to the 1860's train depot and Crab Creek. The Town hosted a booth with environmental coloring sheets for kits, flyers, posters, and other information about the TMDL streams in Town, highlighting the nearby Crab Creek as impaired waters. The Town will also host and participate in a 2-day DCR training event in place of the second meeting that was not held. June 4<sup>th</sup> and 5<sup>th</sup> are the proposed dates for the 2-day stormwater training event. Specific topics to be covered in the training include the Virginia Stormwater Management Law and Regulations, the Stormwater Handbook, the Stormwater BMP Clearinghouse, the E-Permitting System and the roles and responsibilities of a VSMP Administrator, Plan Reviewer and Inspector. These meetings are intended to bring MCM 2 into general compliance with the MS4 Program Plan and permit conditions.

**B. Assessment of the Appropriateness of BMPS**

The three BMPs for this category were appropriate for MCM 2. The BMP 2.1 TMDL Session is intended to involve the general public with the Town's MS4 Program and provide specific information relating to TMDLs. The BMP 2.2 Developer / Engineer Stormwater Quality Treatment Design and Construction Information Session serves 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 will also involve the public at large by providing this report to Town Council and the general public. Should any discussion take place this would be appropriate public involvement. Accordingly, these various BMPs were appropriate for providing public involvement / participation opportunities for the Town of Christiansburg's MS4.

**C. Progress towards achieving measurable goals for the MCM**

Moderate progress was made towards achieving the measurable goals for MCM 2 during the reporting year. Due to manpower constraints, the public involvement meetings did not occur as planned, however the Town did participate in the Earth Day 2010 event at Christiansburg High School. The Town provided stormwater and TMDL information to all who visited the Town's booth. This event was not included in the Program Plan but did satisfy MCM 2 Measurable Goals. Also, the MS4 Annual Report was provided to Town Council, and was available for review and inspection by the general public. Although not completely achieved, the Public Involvement/Participation events resulted in moderate progress towards achieving the measurable goals for MCM 2 during the reporting year. The Town has since participated in the Depot Days Event on 11 May 2013. This resulted in more progress towards meeting the measurable goals for MCM 2. Furthermore, the Town is planning on hosting a 2-day training event, which will result in the Town meeting all the measurable goals for MCM 2, as contained in the MS4 Program Plan.

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

### **A. Status of Compliance with Permit Conditions**

For the 2009-2010 reporting year, MCM 3 was in general but not complete compliance with the permit conditions. The Town did continue to update the MS4 mapping, perform outfall reconnaissance inspections on known outfalls; however it did not finalize the draft Illicit Discharge Detection and Elimination Plan (IDDE Plan) in accordance with the MS4 program plan. This plan will rely heavily 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. By not finalizing the IDDE Plan this portion of MCM 3 was not in full compliance the MS4 Program Plan and permit conditions.

### **B. Assessment of the Appropriateness of BMPS**

The two existing BMPs and one new BMP 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 will identify and address non-stormwater discharges to the MS4 system. The new BMP 3.3 Inflow and Infiltration Elimination Program will continue to develop and execute the sanitary sewer I&I Reduction Program. This will work to reduce sanitary sewer peak flowrates and eliminate overflows. Together, these three BMPs are appropriate for MCM 3.

### **C. Progress towards achieving measurable goals for the MCM**

Substantial progress was made towards achieving the measurable goals for MCM 3. The stormwater mapping updates allowed the Town to effectively focus on MS4 infrastructure for IDDE activities. Although the IDDE Plan was not formally completed, the Town operated in accordance with the draft plan. During the reporting year, 0 suspected illicit discharge events occurred. 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 has made substantial progress prohibiting, preventing, and causing the termination of illicit discharges to the MS4.

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

### **A. Status of Compliance with Permit Conditions**

For the 2009-2010 reporting year, MCM 4 was in general 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 provides for ESC plan approval, routine site inspections, enforcement, and tracking of land disturbance activities. These activities were reported to Virginia DCR as required.

**B. Assessment of the Appropriateness of BMPS**

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

**C. Progress towards achieving measurable goals for the MCM**

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.

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

**A. Status of Compliance with Permit Conditions**

For the 2009-2010 reporting year, MCM 5 was in general 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.

**B. 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.

**C. Progress towards achieving measurable goals for the MCM**

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 results in meeting the MCM 5 measurable goals.

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

**A. Status of Compliance with Permit Conditions**

For the 2009-2010 reporting year, MCM 6 was in general but not complete 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 did not complete a public works facility stormwater inspection in accordance with the MS4 Program Plan therefore was not in complete compliance with permit conditions.

**B. Assessment of the Appropriateness of BMPS**

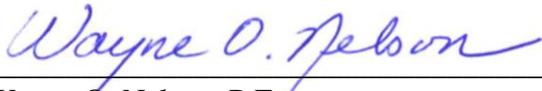
The eight BMPs for this category were appropriate for MCM 6. The BMP 6.1 Household Hazardous Waste Collection event collected and properly disposed of hazardous waste that otherwise would have ended up in regular municipal garbage or being illegally dumped. The BMP 6.2 Street Sweeping Program picked 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 led to the cleaning of storm sewer system piping and structures, resulting in several tons of 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.

**C. Progress towards achieving measurable goals for the MCM**

Substantial progress was made towards achieving the measurable goals for MCM 6. The Town achieved most of 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 did not perform a public works facility inspection in accordance with the MS4 Program Plan, so not all measurable goals were achieved. The Town did update the MS4 Program Plan as needed, evaluate Town properties, and perform an Annual Characterization. These measures resulted in substantial progress towards achieving the measurable goals for MCM 6.

**Authorized Program Signature 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.



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Wayne O. Nelson, P.E.  
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Town of Christiansburg