

Virginia Stormwater Management Program Phase II Annual Report

VSMP Permit # VAR040023

Year 2 (2014-2015)



Botetourt County, Virginia
Department of Community Development

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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 persons 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."

Print Name: _____ Title: _____

Signature: _____ Date: _____

Permit Number: VAR040023

MS4 Name: Botetourt County, Virginia

History of the Program

In compliance with Federal and State Stormwater Quality regulations as outlined in the Federal Clean Water Act (CFR 40) and the State of Virginia regulation (9 VAC 25-750-10 et seq. - General Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation For Discharges Of Stormwater From Small Municipal Separate Storm Sewer Systems), the County of Botetourt, Virginia, implemented a comprehensive stormwater management program in May 2003. Coverage under the first (Municipal Storm Sewer System) MS4 General Permit issued to Botetourt County ended in 2008. Coverage for the second Permit became effective as of July 9, 2008 and ended June 30, 2013. The current permit coverage is effective from July 1, 2013 through June 30, 2018. This report covers activities under Year 2 of the current permit beginning July 1, 2014 and ending on June 30, 2015.

Botetourt County's Stormwater management program was developed to fulfill all of the Minimum Compliance Measures (MCM) as required by state and federal mandate. Botetourt County Department of General Services designed and developed targeted Best Management Practices (BMP) to reach a diverse group of County residents and businesses at all economic and social levels. The administration of Botetourt's MS4 Program is now the responsibility of the Department of Community Development. This report documents the status of the program for Year 2 of the Permit. The main components of the stormwater management program areas are:

- MCM 1: Public Education and Outreach
- MCM 2: Public Participation/Involvement
- MCM 3: Illicit Discharge Detection and Elimination
- MCM 4: Construction Site Stormwater Runoff Control
- MCM 5: Post Construction Stormwater Runoff Control
- MCM 6: Pollution Prevention/Good Housekeeping

MCM 1: Public Education and Outreach

Botetourt County makes education and outreach a priority of the stormwater program. It is envisioned that the County will continue to maintain a commitment to education in the stormwater program by continuing the stormwater education field trips, utilizing Standards of Learning (SOL) correlated stormwater curricula, educating developers and builders at pre-construction meetings, providing informative classes & workshops, and updating the stormwater website. Botetourt County has determined the three high-priority water quality issues based on our TMDL Action Plan requirements and selected the primary target audiences accordingly. The three selected water quality issues are excess bacteria, nutrients and sediment in our streams.

BMP 1:1 Hold a preconstruction conference before each new Land Disturbing Permit (LDP) project; give minimum standard pamphlet to Responsible Land Disturbers (RLDs) that have not previously conducted projects in Botetourt County.

Botetourt County's Erosion and Sediment Control Administrator educates contractors and developers at all pre-construction meetings on proper E&S measures. Site specific Erosion and Sediment control measures and areas of critical concern are identified on proposed plans and BMP designs are discussed. A pamphlet created by DCR outlining the nineteen minimum standards is distributed at pre-construction conferences and given to individuals applying for Agreements in Lieu of an E&S plan.

See Supporting Documentation BMP 1:1 for a summary of all new LDP projects in Botetourt County during permit year.

BMP 1:2 Make Botetourt County's MS4 program plan available to the public by posting the plan and most recent annual report to www.botetourt.org

The current VSMP registration statement with BMP's in place upon submittal and the most recent annual report are available for the public to view at <http://www.co.botetourt.va.us/government/stormwater.php>

BMP 1:3 Reach a minimum of 250 students within Botetourt County Public Schools with programs involving stormwater, waste reduction and reuse, and recycling education.

Clean Valley Council (CVC), a non-profit organization sponsored by local governments, including Botetourt County, provides in-school educational programs using part-time educators. There was a total of 52 programs, 1254 students/youth, 49 teachers/adults and 734 educational materials distributed.

See Supporting Documentation BMP 1:3 for a summary of educational programs in Botetourt County during permit year.

BMP 1:4 Ensure that printed stormwater educational materials are on display at Botetourt County Department of Community Development, General Services and public libraries.

Five (5) stormwater related brochures are available for the public at Botetourt County General Services, Community Development and in Botetourt County Public Libraries. The number of brochures that were distributed is unknown at this time; however, a procedure has been implemented to track those numbers for future annual reports.

See Supporting Documentation BMP 1:4 for a copy of materials on display.

BMP 1:5 Ensure that stormwater educational information is available at www.botetourt.org and update annually.

Information added to the website this year includes the Year 2 report. All other links were tested for accuracy. The webpage includes information, forms, photos, and related links on Erosion & Sedimentation Control, Stormwater Management, and Environmental Education. This site also provides an email address for stormwater, drainage, and E&S complaints. The County will continue to expand, update, and enhance this site for the purpose of educating the public on various environmental topics and issues. The County is working with the MIS Department in order to implement a tracking system to verify the number of times these documents/websites are accessed. Also, Botetourt county staff is researching additional educational information that is available from the EPA and DEQ to add to our website.

Visit <http://www.co.botetourt.va.us/government/stormwater.php> and http://www.co.botetourt.va.us/government/env_mgmt.php#erosion to view the information posted about stormwater management.

MCM 2: Public Participation/Involvement

Public involvement and participation has been a major focus of the stormwater program efforts. Botetourt County staff served on the Boards of Directors for the Clean Valley Council, Upper James River Roundtable, and the Upper Roanoke River Roundtable.

BMP 2:1 Partner with CVC to sponsor at least two clean up events.

Botetourt County had teams participating in Botetourt during the two (2) annual cleanup events. The events were held October 4, 2014 and April 11, 2015.

BMP 2:2 Attend at least 75% of meetings, per year, of the Upper Roanoke River Roundtable (URRR) Board of Directors.

Botetourt County Project Specialist served as a member and regularly attended meetings of the Board of Directors for the URRR. Eight (8) URRR Board meetings were held during this reporting year, 6 of which were attended by a representative of Botetourt County, yielding a percentage of 75% of meetings being attended. The Project Specialist is no longer employed with Botetourt County; therefore, Botetourt County is in the process of selecting a member of staff to participate on the URRR.

See Supporting Documentation BMP 2:2 for meeting minutes of the Upper Roanoke River Roundtable.

BMP 2:3 Attend at least 75% of meetings, per year, of the Clean Valley Council Board of Directors.

The Botetourt County Project Specialist served as a board member of the Clean Valley Council (CVC) and attended regular meetings of the CVC Board of Directors. Nine (9) CVC Board meetings were held during this reporting year, one (1) of which was attended by a representative of Botetourt County, due to a conflict with Botetourt County's Board of Supervisors meeting on the same day as the CVC Board of Directors. The Project Specialist is no longer employed with Botetourt County; therefore, Botetourt County is in the process of selecting a member of staff to participate on the CVC Board.

BMP 2:4 *Ensure that MS4 Program Plan is available at www.botetourt.org.*

The current VSMP registration statement with BMP's in place upon submittal and the most recent annual report are available for the public to view at <http://www.botetourt.org/government/stormwater.php>

MCM 3: Illicit Discharge Detection and Elimination

Botetourt County's stormwater program activities focused on efforts to distribute educational materials in conjunction with MCM 1 & 2 of the program. No new written notifications of physical interconnections were given to other MS4 Operators during this permit year.

BMP 3:1 Collect HHW items at the County owned landfill.

Botetourt County no longer hosts HHW collection events. Alternatively, the following items are collected at the Citizens' Convenience Center year-round:

- Household electronics – 16,528 lbs
- Household batteries
- Propane tanks (≤ 20 lb size) - 38
- Car batteries - 75
- Fluorescent bulbs and tubes – 540 lbs
- Used motor oil (≤ 5 gallons) – 1945 gallons
- Used antifreeze (≤ 5 gallons) – 76 gallons

BMP 3:2 Map the storm sewer system owned by Botetourt County within the watersheds of the Botetourt County urbanized area (UA).

There was no additional mapping of the storm sewer system for the reporting year. Botetourt county staff is evaluating the mapping that has been completed and verifying if additional outfalls need to be included.

See Supporting Documentation BMP 3:2 for GIS maps of the stormwater infrastructure.

BMP 3:3 Develop a stormwater and/or illicit discharge ordinance.

Botetourt County revised Chapter 10 to include a section for the Illicit Discharge Ordinance. The ordinance was presented to the Board of Supervisors on September 22, 2015. The Board authorized staff to advertise for a public hearing at the October regular meeting on the proposed amendments to Chapter 10 to add an Illicit Discharge Ordinance.

See Supporting Documentation 3:3 for the revised text of Chapter 10.

BMP 3:4 Inspect all Botetourt County owned outfalls annually during dry weather and document the current condition of the outfall.

Botetourt County owns and maintains two (2) outfalls at East Park Commerce Center, two (2) outfalls at the Greenfield Education and Training Center, one (1) outfall at the Botetourt Sports Complex at Greenfield, and one (1) outfall at Vista Corporate Park. Botetourt County Public Works and Utility staff visually inspect these outfalls while in the field and are instructed to report abnormalities to the Utility Supervisor, Public Works Director, or County Engineer. Policies and procedures are being developed to provide a schedule and instructions for inspections. The total number of outfall inspections is not known at this time.

BMP 3:5 Document and take actions to correct any illicit discharges discovered during the inspection of outfalls or through other means.

No illicit discharges were discovered.

MCM 4: Construction Site Stormwater Runoff Control

The DEQ website currently lists Botetourt County's Erosion & Sediment Control program as "consistent". Botetourt County has an alternative inspections program for Erosion and Sediment Control and maintains an Erosion and Sediment Control ordinance that adopts all current State of Virginia Erosion and Sediment Control regulations.

The County Erosion and Sediment Control program reviews E&S plans for all proposed construction projects. Information on E&S and litter control is currently distributed at all pre-construction meetings. Botetourt County's Erosion and Sediment Control Administrator tracks E&S projects through a spreadsheet that includes project name, disturbed acreage, Responsible Land Disturber (RLD), project status and project description. Botetourt County will continue to remain dedicated to the protection of Virginia's waters through the implementation of the County Erosion and Sediment Control Program. Botetourt County staff will continue to review and inspect all required projects in compliance with DEQ E&S regulations and will continue to inspect projects consistent with state law. The Botetourt County Stormwater Maintenance Agreement (SWMA) was revised in 2005.

All of the designated VSMP MS4 regulated urban area drains to the Roanoke River basin. Therefore, Botetourt County is exempt from the additional permit reporting requirements related to MS4s draining into the Chesapeake Bay and its tributaries.

BMP 4:1 Perform formal plan review on all construction sites requiring a Land Disturbing Permit (LDP) to assure compliance with the nineteen minimum standards.

There were eight (8) projects submitted, reviewed, and permitted during Year 1 which required an LDP.

See Supporting Documentation BMP 1:1 for summary of all projects approved during program year.

BMP 4:2 Inspect all sites with an active LDP once every two weeks or within 48 hours of a runoff-producing event OR per set alternative inspection schedule.

Botetourt County staff strives to visit and inspect each active LDP site every two weeks and within 48 hours of each significant rain event. As such, the ESC program in Botetourt County is listed as "consistent" on the DEQ website. Botetourt County staff performed a total of 549 ESC inspections for the permit year. There were a total of 10 "Notices to Comply" that were given as part of the inspection document. Corrective actions were taken and no further enforcement actions were taken. There were 2 "Stop Work Orders" given and corrective actions were taken in order to lift the SWO on the project.

BMP 4:3 Report newly approved land disturbance sites determined to be eligible for the VSMP permit to the DEQ Regional Office.

Beginning July 1, 2014, Botetourt County became the VSMP Authority and is responsible for implementing and enforcing the VSMP Regulations. Botetourt County reviews all stormwater management plans, erosion and sediment control plans and ensures compliance with the General VPDES Permit for Discharges of Stormwater from Construction Activities (CGP). All projects requiring a CGP are entered into DEQ's Stormwater Construction General Permit System and the CGP is issued by DEQ. After the project has received the CGP coverage letter, Botetourt County will issue the Land Disturbing Permit.

MCM 5: Post Construction Stormwater Runoff Control

In 2005, Botetourt County laid the foundation for future development by requiring stormwater facility maintenance agreements for all projects resulting in an increase in impervious area and/or stormwater runoff. The requirement is outlined in the current Botetourt County Erosion and Sediment Control Ordinance (adopted July 26, 2005) and required through adoption of Minimum Standard 19 of the Virginia Erosion and Sediment Control regulations and the Virginia Stormwater Management Handbook. During Year 1, Botetourt County updated the stormwater manager ordinance to meet new requirements of Federal and State laws and regulations.

BMP 5:1 Enforce Botetourt County Code, Chapter 10, Erosion and Sediment Control; evaluate current ordinances upon approval of state stormwater ordinance.

Botetourt County adopted amendments on April 22, 2014 to Chapter 10. Erosion and Sediment Control of the Botetourt County Code to add Article III. Stormwater Management and to amend Article I. In General and Article II. Control Plan for Land-Disturbing Activities to comply with federal and State laws and regulations

BMP 5:2 Require a stormwater management infrastructure maintenance agreement on all areas of new development and redevelopment needing permanent stormwater protection measures.

Per Botetourt County Municipal Code, Chapter 10, Sec. 10-34.1, stormwater management infrastructure maintenance agreements must be recorded onto the plat of all new development and redevelopment areas with stormwater management systems. The maintenance and monitoring of these stormwater management systems is the sole responsibility of the property owner or persons signing the agreement.

BMP 5:3 Develop strategies to encourage long-term maintenance of single family residential stormwater control measures.

Botetourt County is working on developing various strategies for long-term maintenance of SFR stormwater control measures such as requiring language on the plat as well as the deeds that will explain the long-term maintenance procedures based on the BMP installed.

MCM 6: Pollution Prevention/Good Housekeeping

Botetourt County administers multiple pollution prevention/good housekeeping practices. Staff completes an annual inventory of hazardous materials at County facilities. Botetourt County collects various household hazardous wastes at the Citizen Convenience Center. Additionally, Parks and Recreation reduce phosphorus released into the environment by establishing a soil amendment schedule that utilizes soil testing to minimize the amount of fertilizers needed at county-owned facilities.

As of July 1, 2015, Botetourt County joined with the Western Virginia Water Authority and no longer owns and maintains the water treatment facility at Greenfield.

Botetourt County does not own and maintain any municipal high-priority facilities within the MS4 urbanized area that would require a SWPPP.

Botetourt County is in the process of identifying other facilities within the designated MS4 area such as recycling centers, fire & rescue or other similar facilities.

Botetourt County maintains several facilities within the urbanized MS4 area that will require Nutrient Management Plans.

| Facility Name | Description | Latitude | Longitude | Acreage |
|--------------------------|-----------------|----------|-----------|----------|
| Cloverdale Elem. School | Ballfields | 37.362 | -79.902 | 4.36 Ac. |
| Troutville Elem. School | Ballfields | 37.441 | -79.848 | 5.05 Ac. |
| Read Mountain MS | Ballfields | 37.408 | -79.925 | 2.86 Ac. |
| Lord Botetourt HS | Ballfields | 37.408 | -79.992 | 5.73 Ac. |
| Eastpark Commerce Center | Green Area, SWM | 37.343 | -79.877 | 6.62 Ac. |
| Vista Corporate Park | Green Area, SWM | 37.361 | -79.921 | 7.34 Ac. |

A summary of training events is not available at this time. All staff performing ESC & SWM plan reviews, inspections and administration duties have been properly certified as required by the State. Additional staff training for the adoption of VSMP has also been obtained.

BMP 6:1 Maintain an inventory of hazardous materials used by the Utilities Division and training certifications of those who handle hazardous materials.

Botetourt County Utility Department staff performed an inventory of all county facilities and determined that Botetourt County Utility Division stores up to four (4) 55-gal drums of sodium hypochlorite and/or RE-OX at a time. All chemicals have containment pallets and are only handled by certified personnel. Three (3) employees are certified as water and wastewater operators and are the only employees authorized to handle these materials.

See Supporting Documentation BMP 6.1 for a copy of the inventory MSDS and training certifications.

BMP 6:2 Maintain a level of recycling in Botetourt County which is higher than the state mandated 15% for rural jurisdictions.

The CY 2014 recycling rate for Botetourt County was 18.1%.

See Supporting Documentation BMP 6.2 for a copy of the letter from DEQ accepting the recycling rate calculated by Botetourt County.

BMP 6:3 Apply appropriate fertilizers at Botetourt County Parks and Recreation facilities as defined by the results of soil tests.

Botetourt County Parks and Recreation staff performed soil test on the 6 largest facilities before applying fertilizer in Year 1. Staff currently spreads the application of recommended fertilizers out over a two-year period.

See Supporting Documentation BMP 6:3 for documentation of soil tests and the recommended fertilizer applications for each facility.

BMP 6:4 Collect HHW items at the County owned landfill.

See BMP 2.4.

Stormwater Management Facilities

No new stormwater management facilities covered under the VSMP have been added in Year 2. Current, only four (4) stormwater management facilities are owned and operated by Botetourt County. Of those, Vista Corporate Park is the only SWM facility that discharges directly into a body of water with Waste Load Allocations. Waste Load Allocations within the Botetourt County urbanized area are listed in the table below.

| Waste Load Allocations | Number of Discharges |
|-------------------------------------|-----------------------------|
| 4.36E+11 cfu/yr to Laymantown Creek | 0 |
| 1.19E+11 cfu/yr to Glade Creek | 0 |
| 1.28E+11 cfu/yr to Carvin Creek | 0 |
| 1.95E+12 cfu/yr to Tinker Creek | 1 |

Information regarding the one discharge in an impaired body of water is as follows:

- Vista Corporate Park

- Estimated drainage area: 56 acres
- Impaired receiving water: Tinker Creek Middle
- Land use: Vista Park is an industrial park currently occupied by two companies. The area consists of approximately 40% impervious area with the remaining area having grassy vegetative cover. The stormwater from this drainage area passes through a detention basin and is discharged via an outfall located on Tinker Creek. The stormwater detention basin is owned and maintained by Botetourt County.

Future Program Goals

Botetourt County will continue to maintain a dedicated effort to fulfill all of the requirements in its stormwater program as outlined in **VSMP Permit # VAR040023**. Future program goals are described in the BMP Summary Table located in the attached supporting documentation. Botetourt's MS4 Program is in the process of an overview by County staff and administration and will be updated once the review has been completed.