



# Botetourt County, Virginia

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## TMDL Action Plan: Bacteria

Reporting Period: First TMDL Action Plan Report

Permit Number: VAR040023

In compliance with the Virginia Stormwater Management Program (VSMP) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4)



# Botetourt County TMDL Action Plan

## Bacteria

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**1. MS4 Program Review**

Existing Legal Authorities, [https://www.municode.com/library/va/botetourt\\_county/codes/code\\_of\\_ordinances](https://www.municode.com/library/va/botetourt_county/codes/code_of_ordinances)

- Chapter 10 of the County Code describes the Erosion and Sediment Control; Stormwater Management; Illicit Discharge Ordinances
- Chapter 6 of the County Code describes the Building Ordinance
- Chapter 8.5 of the County Code describes the drainage and flood control ordinance
- Chapter 21 of the County Code describes the Subdivision Ordinance
- Chapter 25 of the County Code describes the Zoning Ordinance

Legal Authority:

- Illicit Discharge, Detection and Elimination ordinance was adopted on October 27, 2015.

**2. Legal Authority**

This is the first Botetourt County TMDL Action Plan submittal. All existing legal authorities are noted above. The County does not anticipate any new or modified legal authorities to be implemented in the future.

**3. Means and Methods for New Sources**

Botetourt County will address discharges into the MS4 from new discharges through its existing legal authorities and through its recently adopted Illicit Discharge, Detection and Elimination Program.

**4. Final TMDL report**

Fecal Coliform Total Maximum Daily Load Development for Glade Creek, Tinker Creek, Carvin Creek, Laymantown Creek and Lick Run prepared for the Virginia Department of Environmental Quality March 16, 2004 by MapTech, Inc.

**5. Load Allocations by watershed**

Average annual *E. Coli* loads (cfu/year) modeled after TMDL allocation in the following watersheds:

**Laymantown Creek: 4.36E+11**

**Glade Creek 1.19E+11**

**Carvin Creek: 1.28E+11**

**Tinker Creek: 1.95E+12**

**6. Significant Sources of POCs**

Botetourt County (VAR040023) has management oversight of two (2) stormwater facilities (Botetourt Center at Greenfield; Vista Corporate Park) located within the Urbanized Area (UA) as part of the MS4 permit. As such, neither the stormwater facilities nor the commercial operations that the facilities serve are anticipated to increase *E. Coli* loading into the watershed. The Cherry Blossom Trail, the Horse Trail and other associated trails along Greenfield Lake and within Greenfield where some people walk their dogs have the potential to increase *E. Coli* loading into the watershed. Other significant sources of bacteria within the TMDL area include livestock operations, biosolids and manure application areas, dog parks, failing septic systems, straight pipe sewer systems and wildlife. However, Botetourt County has little if any control or authority over such operations. These sources are broken down by individual impairment in the Final TMDL plan and are not included in this Action Plan.

**7. Means and Methods to Offset Increased Loads from New Sources**

The following is a tabulation of the BMP's that Botetourt County plans to implement to decrease discharges of Bacteria (*E. Coli*) along with the implementation schedule:

BMP	BMP Name/Task	Implementation Dates
1	Enhanced Public Education and Outreach for Pet Owners Determine Target Audience Based on Pet Licenses Develop/Obtain Publications to be Provided to Pet Owners and Vet Offices Distribute to Target Audience	June 2016 June 2016 June 2017-2018/Annually
2	Pet Waste Stations Determine Needs Maintain Existing Stations at Greenfield Install Additional Stations if Needed	June 2016 On Going June 2017 / 2018
3	Enhanced Public Education and Outreach for Homeowners with Septic Systems Determine Target Audience Based on Health Department Records Develop/Obtain Publications for Homeowners	June 2017 June 2017

	Distribute to Target Audience	June 2017-2018
4	Enhanced Employee Training (Staff that Maintain the Grounds at Greenfield/Vista Park) Good Housekeeping and Pollution Prevention Practices Around Waterways/Streams Recognize and Report Illicit Discharges	Annually/New Hires June 2016 June 2017
5	Enhanced Illicit Discharge Detection and Elimination Program at Greenfield/Vista Park Develop Publications to be Distributed to Commercial Facilities within Parks Distribute to Facilities Increase Outfall Inspections to Bi-Annually	January 2016 June 2017/As Needed June 2016
6	Continue Public Education and Outreach for users of the Horse Trail System User Telephone Registration and Instructions	Ongoing

**8. Modifications to TMDL or watershed implementation plan that occurs during the term of this state permit as part of reapplication.**

Botetourt County will address this at the time of permit reapplication.

**9. County owned/operated facilities within the MS4 Urbanized Area**

Botetourt County does not own any facilities within the MS4 Urbanized area that would require a SWPPP. Of the two industrial parks as identified in Section 6 above, Botetourt Center at Greenfield would have the greatest potential to be a significant source of pollutant due to the trail system that allows pets and horses. Dog waste stations have been installed along Cherry Blossom Trail and we will assess the need for additional stations in the coming year. Also, educational material will be obtained and provided to owners based on the dog tag license records. Currently there are approximately 2,231 dog tags in 2015. We will try to narrow the target audience further based on addresses near areas of concern.

According to the Assistant Director of Parks and Recreation, certain trails at Greenfield are open to horses. In order to get permission to ride horses on the trails, the user is required to phone the Parks & Rec department prior to arriving. At that time, the riders are given the rules and regulations pertaining to the use of the trail which includes the proper disposal of any horse waste.

**10. Public Comment for TMDL Action Plan**

The Botetourt County bacteria TMDL Action Plan will be posted on the county's website once approved and advertised through the website and in an advertisement in the local newspaper. Written public comments will be accepted until a date to be determined upon approval.

**11. Methods to Assess TMDL Action Plan effectiveness**

Botetourt County does not provide current water quality monitoring on the impaired segments. All water quality data will continue to be collected by the Department of Environmental Quality (DEQ) for use in the TMDL plan and implementation phases going forward. Botetourt County will continue to review and evaluate the results of DEQ's ongoing water monitoring program as well as continuing the 2 County owned outfall inspections.

**12. 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."

Name  Title Interim County Administrator Date 12-28-15