TMDL **Project Closeout Report**

MOORES CREEK

Virginia Nonpoint Source
MANAGEMENT PROGRAM

Project Location and Background

Moores Creek watershed is located within the Middle James watershed and drains 31.49 square miles of Albemarle County and 3.49 square miles of the City of Charlottesville, for a total drainage area of 34.92 square miles. Moores Creek flows approximately 11 miles from its source in the Ragged Mountains to its confluence with the Rivanna River in Charlottesville. Moores Creek was first listed as impaired due to violations of the State's water quality standard for fecal coliform on Virginia's 1998 303(d) Total Maximum Daily Load Priority List. A TMDL for the bacteria impairment on Moores Creek was completed by DEQ in 2002. A TMDL implementation plan was completed by the Thomas Jefferson Planning District Commission in 2003; however, it did not meet the nine eligibility criteria to receive EPA Section 319(h) funding. In 2012, the VA Department of Conservation and Recreation (DCR) contracted the Rivanna River Basin Commission (RRBC) to complete an update to the implementation plan in order to meet the funding criteria, and to implement the plan. The update was completed and approved by EPA in 2012. An implementation project began in January 2012 and ended in June 2014.

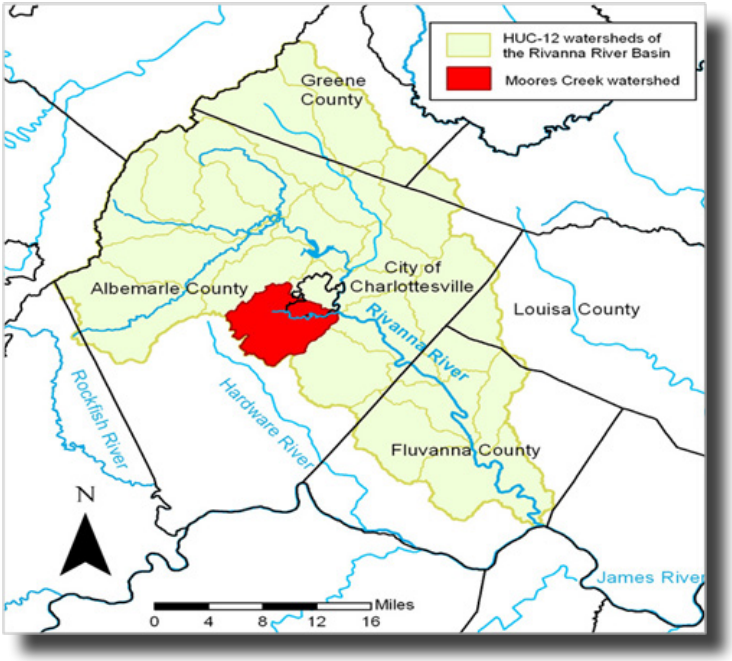

Table 1. Moores Creek BMP Summary: January 2012-June 2014

Control measure	Units	Need	Instal.	%
Agricultural				
Livestock exclusion fencing	F	27,766	2,175	8
Livestock exclusion systems	S	12	1	8
Riparian buffers	A	19	-	-
Residential				
Pet waste composter	S	60	0	0
Pet waste to energy digester	S	1	0	0
Neighborhood pet waste station	P	1	1	100
Residential septic				
Septic tank pumpout	S	40	13	33
Connection to public sewer	S	41	2	5
Septic system repair	S	62	1	2
Septic system installation	S	33	3	9
Alternative waste sewage system	S	31	0	0

NOTE: BMP counts only include 319 funded projects, and BMPs funded by the VA Agricultural Cost Share and Conservation Reserve Enhancement Programs; A = Acres, S = System, F = Feet

Implementation Highlights

The RRBC was awarded Section 319(h) funds to administer a residential septic and pet waste education program in cooperation with project partners, while the Thomas Jefferson Soil and Water Conservation District (TJSWCD) used state funds to support implementation of agricultural BMPs in the watershed. In April 2013, the RRBC underwent a significant change in structure and function and was no longer able to administer the implementation project and the Thomas Jefferson SWCD stepped in to fill this role. Two pet waste disposal stations were installed and a pet waste education program was initiated in the project area during the project period of January 2012 - June 2014. In addition, thirteen septic tank pumpouts, three septic system replacements, a septic system repair, two connections of failing systems to public sewer, and replacement of two alternative sewage systems were completed.

Pollution Reductions

Pollution reductions for bacteria, nitrogen, phosphorus and sediment for BMPs installed during the project period are summarized in Table 2.

Table 2. Moores Creek Pollution Reductions: Jan. 2012-June 2014

Pathogens: coliform (cfu/100mL)	Nitrogen (lbs/yr)	Phosphorous (lbs/yr)	Sedimentation-Siltation (T/yr)
4.01E+11	243	0	0

Project Funding

The total amount of federal 319 funding provided for cost-share to address pet waste and onsite sewage systems during the project period totaled $25,341. In addition, 319 funds provided $78,429 in technical assistance funds to promote implementation of BMPs. The landowner contributions to implement agricultural and residential BMPs totaled $21,950. Total project funding was $125,720.

Closeout Analysis

The Moores Creek project period was for 2 and a half years and DCR decided to discontinue targeted 319 funding to the project in June 2014 due to several reasons which included:

- Despite considerable education and outreach efforts by project partners, little progress was made in the agricultural BMP program in the watershed. Much of this was attributed to the limited amount of farmland in the watershed. One livestock exclusion system was installed (2,175 linear feet), while the IP identified 12 systems that were needed.

- The amount of cost-share funding being utilized in comparison to technical assistance funding spend did not warrant continuing the project.

- As referenced in Implementation Highlights above, there were two different project sponsors during the project tenure that included RRBC and TJSWCD. This impacted continuity in the project and resulted in a slowdown of activity and results during the transition from one sponsor to the other.

This Virginia Nonpoint Source Management Program is managed by Virginia Department of Environmental Quality and is funded, in part, through grants from the U.S. Environmental Protection Agency, under the Clean Water Act Section 319.

For more information regarding Virginia's Nonpoint Source Management Program, please visit us on the web at: http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/NonpointSourcePollutionManagement.aspx

For more information, contact:

Charlie Lunsford, VADEQ
TMDL Implementation Project Manager
charlie.lunsford@deq.virginia.gov
(804) 698-4172

Alyson Sappington, Thomas Jefferson SWCD
District Manager
alyson.sappington@tjswcd.org