

# ***Mattaponi River Watershed Implementation Plan Steering Committee Meeting***

March 27, 2019  
Meeting Notes

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**Location:** Bowling Green Town Hall  
117 Butler Street  
Bowling Green, Virginia 22427

**Start:** 1:00 p.m.  
**End:** 3:00 p.m.

## **Meeting Attendance:**

1. David Evans, VA Department of Environmental Quality (DEQ), Facilitator
2. Sarah Sivers, VA DEQ, Water Quality Planning Team Lead
3. Sayedul Choudhury, Steams Tech, Inc., technical support contractor to DEQ

## **Steering Committee Members:**

4. Barbara Bach, Caroline County, Horse farm owner
5. Benjamin Bradley, Stantec (VA Dept. of Transportation Contractor)
6. Kevin Byrnes, Regional Decision Systems, LLC
7. Stuart Lane, Agricultural producer, Caroline and King & Queen Counties
8. David McIntire, King & Queen County
9. David Nunnally, Caroline County
10. John (Jack) Vanderland, Homeowner, Lake Caroline

## **General Public: Observers:**

11. Eunice Tucker, VCU Student
12. Tim Biddle, Trutta Environmental Services

## **Meeting Minutes:**

Attendees were welcomed and participants introduced themselves. David Evans of DEQ explained the purpose of the meeting and shared general comments about the Mattaponi watershed and factors that are most relevant to development of the Implementation Plan (IP). He then shared information in a powerpoint presentation that served as a foundation for seeking Steering Committee members input on a series of questions about different components of the IP. Participants had received both the discussion questions and the presentation in advance of the meeting to facilitate their contributions during the meeting. During the presentation a few clarifying questions and comments were offered, and are summarized below:

- Funding Needs for the IP: a question was asked whether the cost estimates in the presentation represented new funding needs or cost-share. DEQ responded that the cost estimates are the projected full cost of the Best Management Practices (BMPs) presented.

Some recommended practices (e.g., Agricultural BMPs) already have cost-share funding available, and for others (e.g. Residential Septic BMPs), completion of the IP could provide for new Section 319 grant funding to support their implementation.

- Program Administration Costs: another question pertained to whether “overhead” costs to manage the implementation of recommended BMPs were estimated. DEQ responded that the cost estimates shown at this time do not include program administration “technical assistance”, but that the full IP report will include these costs.
- Public Comment: there was a question about plans for public comment on the IP report. DEQ responded that a draft IP report is planned to be ready for Steering Committee members to review by the end of April, and the Final Public Meeting is tentatively planned for the first half of June, 2019. A 30 day formal comment period will begin on the date of the Final Public Meeting.
- Local Government Support Letters: one member inquired if letters of support from local jurisdictions in the IP area would be needed. DEQ said the active participation of local jurisdictions and area producers and residents is what is most important to meet DEQ and EPA expectations, and summaries of the public and workgroup meetings document their involvement. Additional letters of support are not needed, nor are they discouraged.
- Bacteria Reduction Needs: a member observed the very high (80%) bacteria reductions shown as needed for pasture, croplands, and developed lands in the Root Swamp watershed, which has a very high percentage of land in forest. DEQ and Streams Tech responded that these percentages (from the TMDL report) are derived based on the water quality monitoring data available, which is limited for this watershed. The timing of monitoring events (in relation to heavy precipitation events) can strongly influence bacteria results. DEQ noted that while BMP recommendations in the IP report will need to be sufficient to achieve the TMDL reduction goals, future water quality monitoring activities will determine whether/when the BMPs implemented are sufficient to achieve the Recreational Use water quality standard.

Most of the meeting time was used to discuss the questions DEQ prepared to elicit input on various components of the IP. The key discussion topics and feedback shared by Steering Committee members follows:

#### Addressing Newly Impaired Areas

DEQ has modified the IP watershed scope from its original planned to incorporate additional areas in Polecat Creek and a lower section of the Mattaponi River that are identified as “impaired” for excess bacteria in the draft 2018 DEQ Integrated Report. Participants were asked if they have any questions or feedback on DEQ’s plans. All participants expressed support for DEQ’s plan to develop new TMDL equations to identify reductions needed, and then enlarge the adjacent 2016 TMDL Watersheds (Polecat Creek and Reedy Creek) to incorporate the areas containing the newly identified impairments.

A question was asked as to what the additional costs are for these new areas. DEQ and Streams Tech will follow up on this question and provide the incremental BMP costs for these areas to the Steering Committee. They are expected to be a modest increment of the entire BMP cost estimate of \$53 million.

## Livestock Exclusion Fencing

DEQ summarized the approach taken to develop preliminary BMP estimates for stream exclusion fencing, and sought input from members. Questions and comments included:

- **Stream Set-back Distances:** DEQ noted that both 35' and 15' set-back BMPs are included in the preliminary recommendations. Participants discussed how the Chesapeake Bay Preservation Act (CBPA) generally requires a 100' natural buffer for perennial streams and wetlands connected to them. A reduced set-back of 50' applies to agricultural lands with SWCD-approved plans to control pollutant(s) of concern (50'), and the CBPA allows for a 25' set-back when additional BMPs in place. As a practical matter, since most fencing BMPs are installed under cost-share programs that require 35' buffers, that is commonly the smallest set-back distance for agricultural lands in the area. It also was noted that Orange County has 50' set-backs required in some zoning districts that are not covered by the CBPA. Discussions concluded that 15' set-backs should only be included for areas not subject to CBPA or other local ordinances requiring greater buffers, so most BMPs should provide for 35' buffers. DEQ also noted that the Virginia Agricultural BMP Advisory Committee is currently making recommendations that will affect the Commonwealth's fencing/buffer cost-share programs, and the report will address this.
- **Extent of Fencing in place/needed:** There was a question as to what percentage of pastures are currently fenced in the Mattaponi watershed. DEQ noted that the local SWCDs have begun to identify cattle operations that are currently fenced and those that are not. A participant suggested that Districts should be able to map areas where fencing BMPs have received cost-share assistance, and there was discussion that privacy protections under many agricultural conservation programs may limit this. Caroline County may be able to assist with mapping, and participants expressed hope that privacy could be maintained while using geographic analysis methods to focus outreach to producers with livestock who currently have access to streams.
- DEQ is considering identifying a subset of watersheds where water quality data analysis indicates greater potential for direct deposition sources of bacteria as priorities for livestock exclusion fencing outreach. The agricultural producer present indicated support for this approach, and DEQ plans to write to this in the IP report.

Pasture Management: comments offered relative to DEQ's questions included:

- There was very limited discussion here, with an inquiry as to whether the fertility of pasture lands is assessed. The point offered was that healthy pastures are better drained and result in less runoff that can carry bacteria to streams.
- A committee member commented that there may be opportunities to improve the bacteria reduction value of existing stream buffers with additional planting of the buffer zone. This comment was well received by others and should be incorporated into the IP report.

Cropland BMPs: The preliminary BMP recommendations include measures for conservation tillage, cover crops, and grassed waterways. Comments offered were as follows:

- It was noted that most cropland in the IP area is currently using no-till farming practices, driven by the fuel cost savings they offer. Cover crops are common, but their planting can be limited by heavy precipitation/wet fields, which was a common occurrence in 2018.

- Existing cost-share programs have been very beneficial and supported increased use of cover crops. The most environmentally beneficial cover is a multi-species mix with inclusion of legumes and clover. Multi-species cover crops are somewhat more expensive, but result in improved soil structure and drainage, and also reduces freezing and allows rain infiltration to reduce runoff during the winter.

Wetlands and Reforestation: DEQ noted that while these measures are often not included in bacteria TMDL IPs, they offer bacteria benefits along with many other ecological benefits. In this light and from local stakeholder interest to include them, a modest amount of these practices will be included in the IP. Discussion points made were as follows:

- While there has been limited private property wetlands restoration work in the watershed to date, the very wet previous year (2018) might result in a greater interest in wetlands restoration in the future.
- One participant asked how an agricultural producer would ever conclude that it is beneficial to take land out of production for wetlands or forest restoration. Relatedly, if the land owner made this decision, a reduced production area would negatively impact a tenant farmer working the land. DEQ noted that cost-share programs might make this viable for marginal agricultural lands, while acknowledging removing lands from production is not often in the producers economic interest.
- This led to brief discussion of the Healthy Forests initiative, which was developed in a partnership by the Virginia Department of Forestry and the Rappahannock River Basin Commission. The Healthy Forests program was recently endorsed by the Virginia Legislature, and it will provide new incentives for individual landowners and local governments to receive private capital funds associated with carbon markets to support their existing forest preservation and new forest/reforestation efforts. The Mattaponi IP plan should briefly note how this program can support some of the IP's goals.

Horse Farms: With one of the committee members an area horse farm owner, DEQ requested input on its plan to specifically include small farm grazing system and manure composting BMPs for equine operations.

- The feedback shared included helpful background information about horse farming. Horses need to stay out of water, and the amount of local flooding last year raised challenges. Cross-fencing horse pastures and rotating their use every 7 years is a best practice.
- A key point for BMP planning is that horses generate a lot of manure! In this context, the DEQ manure composting specifications seem to be rather small, and it would be helpful to allow for larger composting units. DEQ noted that these specifications have been prepared to enable field application/practical applications, and modifying them to meet individual needs will be possible.
- Discussion also raised awareness of the amount of labor that would be required to remove manure from pasture to a compost area, and there were questions about how realistic this may be. All farming, horse farms included, is extremely labor intensive and increased labor requirements for better manure management will be challenging to carry out.

Residential Septic: DEQ noted the septic BMPs were developed using the detailed analysis prepared by Kevin Byrnes in support of the George Washington Regional Commission's WIP III planning effort, which he shared with DEQ at no cost. DEQ expressed great appreciation for this in-kind support for

the Mattaponi IP from Mr. Byrnes. DEQ said that the BMPs in the preliminary chart represent pumping all septic systems once (approximately 15,000) and repairing approximately 20% of systems. The draft IP report will break out recommended septic BMPs into the individual practices (RB-1 to RB-5) that DEQ offers cost-assistance for via Section 319 grants. Discussion included the following:

- Alternative Septic Systems may be undercounted, based on the experience in Lake Caroline. Typically 15-20 new building permits are issued annually in the Lake Caroline community, and nearly all new homes have installed Alternative Systems. DEQ was encouraged to look at whether the data may warrant revision for the Polecat Creek watershed, where Lake Caroline is located. The committee member from Lake Caroline offered to share data on system age within his community.
- Lake Caroline requires pump-out of conventional septic systems by owners every five years, as a community ordinance.
- There was brief discussion of the need for maintenance of septic systems, and that many owners may not adhere to recommended schedules. For conventional septic systems in locations subject to the CBPA, a pump-out is required every five years unless the local health department has authorized substituting a plastic filter that prevents solids from being discharged in the effluent for regular pump-outs, or the owner provides documentation that a licensed septic system contractor has inspected the system and determined that a pump-out is not needed.
- DEQ asked for participants' feedback on how septic system priorities might be identified in the IP report. One possibility would be to indicate septic systems in CBPA designated areas are the highest priority; some committee members expressed a sense that these homes already receive increased attention and that those outside CBPA areas may warrant priority attention under the IP. There was general consensus that the age of septic systems and their location in areas with poorly drained (Group C/D) soils, as well as homes with no record of recent septic maintenance, should be identified as the top priorities for septic outreach and assistance. Increasing/improving homeowner notification of septic maintenance needs is important in the education and outreach component of the IP.

Only a few minutes remained for discussion of recommendations to address Pet Wastes, Stormwater runoff, and acknowledge concern for Biosolids use in the watershed. Take away points from comments shared are:

- Pet Wastes: DEQ noted that while Pet Waste measures will be included in the draft IP, they will be far fewer than shown in the preliminary BMP recommendations tables, given the relatively low development density of the IP area. Participants noted that pet waste stations/composters would be most appropriate in the more concentrated development areas like Bowling Green, Lake Caroline, Caroline Pines, Lake Land or, Ladysmith, and higher density areas in Spotsylvania. The education and outreach program should ensure that effective pet owner information on avoiding water contamination from pet wastes is developed and shared with all local organizations that have newsletters/communications with their members. Local veterinarians will also be important opportunities to share information about pet waste management practices. Finally, it was noted that all homeowners or businesses with more than twenty dogs are required to apply for a kennel license in Caroline County, and any business that keeps dogs must have a kennel license, and commonly must provide for waste

management. Information from kennel licenses could also help focus attention for improved pet waste management.

- Stormwater Management: DEQ similarly noted that the IP will include some stormwater management practices, though far less than to amount shown in preliminary BMP recommendations table. Comments offered were that, like pet wastes, these measures should focus on the relatively few areas with higher density development. One participant wondered how long pet wastes maintain elevated bacteria levels, and in light of the response that this period could be nearly a month, questioned whether stormwater BMPs would result in a true reduction in bacteria releases to streams.
- Biosolids Education: DEQ noted that in earlier IP workgroup meetings, participants suggested it would be valuable for the IP education and outreach program to give attention to improved understanding of the use of biosolids in agricultural production. Participants support this, while at same time having skepticism as to whether improved public understanding will be achievable for an issue that is emotional for many. The agricultural producer on the committee offered that it would be valuable to have willing local producers who use Class A biosolids (commercially available, no DEQ permit required) have the runoff around their storage areas tested to assess whether bacteria contamination is present, and indicated he would be willing to participate in such testing.

Dave Evans concluded the meeting by thanking all present for their contributions, and informed them that he plans to send a draft IP report for their review at the end of April. This would allow for a 2-3 week review and comment period by the Steering Committee, and time for DEQ to revise the draft report for presentation to the public in an early/mid-June Final Public Meeting.