

Upper York River Watershed-Louisa, Orange and Spotsylvania Counties
Total Maximum Daily Load (TMDL) Implementation Plan Development

Tuesday, May 10, 2011, 6-8 PM

Jefferson-Madison Library, 881 Davis Highway, Mineral VA

Agricultural Working Group & Residential Working Group Meeting #2

General Attendance (Agricultural and Residential Working Groups):

Jenny Biche', Rappahannock-Rapidan Regional Commission
Deirdre Clark, Rappahannock-Rapidan Regional Commission
Willie Gentry, Chair, Louisa County Board of Supervisors
Christopher Owens, Citizen
Byron Petrauskas, Blue Ridge Environmental Solutions, Inc.
May Sligh, Department of Conservation and Recreation
Doug Smith, Citizen

Introduction and General Information Provided:

- Attendees were welcomed and introductions were made. Attendees were provided with minutes from the last Public Meetings, Residential, Agricultural and Government Working Group Meetings, as well as various hand-outs on the Upper York River Watershed TMDL-IP. The material was reviewed and high-lights of each meeting were noted.
- After summarizing the previous meeting minutes, the following questions and comments were shared:
 - **Citizen is aware of a fencing contractor who charges \$3.25 per foot of installed 6 inch mesh fencing with one barb wire top strand in Louisa County. Mesh fencing is safer for horses, goats, etc. than tensile wire.**
Staff will research to determine if mesh fencing meets the requirements for any cost share programs. (Findings: Districts have cost-shared on mesh fencing; however, because it traps debris, it is easily damaged or destroyed in flood-prone areas.)
 - **When standards are being set, such as requirements for fencing type used in cost share programs, input should be collected from the public.**
Comment will be forwarded to the Department of Conservation and Recreation (DCR). The cost share programs factor in universal cost for an area when setting price standards.
 - **Have wetlands in Goldmine Creek helped improve the water quality? The wetlands have been expanded by the beaver population.**
Wetlands are a natural feature that helps improve water quality. The section of Goldmine Creek in the wetlands has not been placed on the Impaired Waters List, so bacteria levels there must be below the standard.
 - **Lake Anna Civic Association (LACA) has a monitoring station in the wetland area and their water testing has always demonstrated acceptable bacteria levels except after heavy rains.**
 - **Has wetland construction ever been used as a BMP in a TMDL-IP?**
The South River TMDL-IP recommended wetland construction as a BMP. Wetlands can be very expensive to construct, so they are not typically an affordable option.
 - **Is there any data stating how much of an impact wetlands have on water quality improvement?**
The Department of Environmental Quality's (DEQ) website has the most up to date information available.
 - **Terry's Run also has wetlands.**
 - **It was suggested that the definition of the bacteria standard (235 E. coli colony forming units per 100 mL water) be put in terms that the general public can understand for the final public meeting. What does this mean to me? Unhealthy water that if swallowed can lead to illness, ear infection, etc.**
 - **Will the TMDL-IP have the capacity to measure progress?**
Yes, part of the TMDL-IP includes phasing so that we can assess how much progress is being made. It also encourages the Department of Environmental Quality (DEQ) to commit resources to continue to monitor the stations.
 - **Goldmine Creek has 8 tributaries. Has there been any research to determine whether one tributary is contributing more bacteria than the others?**

Yes. Thomas Jefferson Soil and Water Conservation District conducted a 2 month study examining all 8 tributaries to identify bacterial hot spot. The project summary is available. It was funded through a Department of Conservation and Recreation mini-grant 3 years ago.

- **The information from that project summary would be useful to the Louisa County Board of Supervisors. It could be used as a template for how counties can address all the impaired watersheds.**

- **Why are the other rivers and creeks in Louisa County not being addressed in this TMDL-IP? Are they not impaired? Why is South Anna not included?**

The watersheds in this TMDL-IP only include the rivers and creeks identified on the impaired waters list in the TMDL study completed by the Department of Environmental Quality (DEQ) in 2005. The remaining rivers and streams may be included in a separate TMDL study. DEQ and DCR (Department of Conservation and Recreation) maintain a list of completed TMDL studies and address TMDL-IPs one at a time until they have completed the list. Louisa County Board of Supervisors may want encourage a TMDL-IP be started for South Anna.

- **There should be some coordination between this TMDL-IP and the Lake Anna Ecosystem Restoration Project the Army Corps of Engineers is overseeing.**

Staff agreed to learn more about this project and determine how it relates to the TMDL-IP.

- **LACA is interested in funding a demonstration project in which they would partner with a farmer participating in the exclusion fencing cost-share programs by covering the difference between the cost-share amount and the total amount needed. LACA hopes to demonstrate the benefits of the program and encourage more farmers to participate. LACA would monitor the water quality before, during and after the construction of the exclusion fence.**

If a farmer is chosen from an area identified by DEQ as being in the impaired watershed, the cost share could be as high as 90%. Success stories have been instrumental in increasing farmer participation in other watersheds. Grant funds may be available to match the money donated by the Lake Anna Civic Association.

- A pamphlet was distributed informing attendees of the “Restoration of the Chesapeake Bay and its Tributaries: A Working Seminar for Local Officials” meeting to be held on May 26, 2011 at the Hanover County Board of Supervisors Auditorium. All were encouraged to attend.

- **Steering Committee Meeting:**

- Will be held on June 7, 2011, 6-8 PM, Town of Orange Public Works Community Room;
- Representatives from the Agricultural, Residential and Government Working Groups will present summaries of issues discussed at respective meetings;
- Byron Petrauskas, BRES, Inc., will present the draft TMDL-IP for review and comment; and
- All interested are encouraged to participate and should contact Jenny Biche’ or Byron Petrauskas to indicate their intent.

- **The Final Public Meeting:**

- Will be held on June 21, 2011, 6-8 PM, Town of Orange Public Works Community Room; and
- Draft TMDL-IP will be presented for public comment.

Working Group Meeting: Attendees elected to remain as one combined working group and address both the Agricultural and Residential material.

Agricultural Discussion Points:

- A summary of proposed practices, “Upper York River Basin Watershed Implementation Plan,” as prepared by BRES was distributed for review and comment;
- **Table 1:** “Existing livestock exclusion fencing and estimated exclusion fencing length needed in each impairment.” Questions and comments include the following:
 - Data was generated through aerial map analysis and then ground-truthed by the locality’s Soil and Water Conservation District. Their comments and edits will be incorporated and the table will be modified prior to the Steering Committee and final Public Meetings;
 - Table 1 includes all identified livestock operations and potential fencing needs;

- Table 2: “Estimation of control measures with unit cost (average) needed to meet pasture and cropland bacteria load reductions.” Questions and comments include the following:
 - Pasture management is an important factor in achieving reduction loads;
 - Retention ponds;
 - Listed as a catch-all if needed to get the exceedance rate down to 0% as required to comply with the TMDL;
 - TMDL-IPs have been approved by EPA with a 3-4% exceedance rate of the bacteria standard and retention ponds are not included;
 - At a cost of about \$2,000 per acre for retention ponds, costs for the TMDL-IP often doubles if retention ponds are needed;
 - The acreage needed for a retention ponds is determined by the amount of land that drains into it;
 - Retention ponds will not be implemented until the final year or two of Stage 2 and then, only if needed
 - Manure is incorporated into soil by either injection or using a disc, after which the land can be re-pastured; and
 - The amount of technical assistance required will reflect what can be funded.

Residential Discussion Points:

- Table 3: “Estimation of control measures with unit cost (average) needed to meet on-site sewage disposal system and pet waste bacteria load reductions” was reviewed and the following comments made:
 - Eliminate the use of acronyms;
 - The "number of units needed" are estimates;
 - Pet waste management programs:
 - Often are viewed as unnecessary in rural areas;
- The Town of Orange has experienced a favorable response to signage and pet waste kiosks;
- Table 4: “Control measures with estimated cost-share program and landowner costs” was reviewed and the following comments made:
 - Byron Petrauskas, BRES, Inc. confirmed that cost-share amounts for septic tank repairs ranged from 50-75%. Cost share amounts for septic tank pump outs are 50%.
 - Connection to the public sewer system can cost up to \$20,000. The footnote reflects the fact that average unit costs can be higher.

Combined Agricultural & Residential Discussion Points:

- Table 5: “Targeted implementation stage for control measures installation” was reviewed and the following comments made:
 - The purpose is to develop a timeline and prioritize goals and milestones;
 - Stage 1: Includes strategies to reduce the bacteria water quality standard exceedance rate to below 10.5% and remove the watershed from DEQ’s Impaired Waters List; and
 - Stage 2: Includes strategies to attain the TMDL’s goals and reduce the bacteria load to 0% required to comply with the TMDL.
 - It was suggested that initial efforts focus on strategies that have visible, tangible results, producing a high return for the investment such as;
 - Pet waste management education and outreach;
 - Exclusion fencing practices; and
 - Upland pasture management.
 - Attendees discussed the relative merits of focusing certain streams first:
 - Because Pamunkey Creek is well-known regionally and popular with real estate agents, it might present more opportunities for public education;
 - Among the streams included in the TMDL-IP, Terrys Run and Pamunkey Creek are more developed with a higher number of homes, more beaches and marinas, and more possibilities for citizen engagement; and
 - Goldmine Creek should be among those streams addressed first because of the interest and support of the Town of Louisa;

- Focusing first on Pamunkey Creek, Terrys Run and Goldmine Creek could result in fairly significant reductions in a fairly short time if actions are initiated while funding is available. and funding will be available to get the work done;
- Because of its characteristics – no big agricultural producers, mostly forested, and few residences – Plentiful Creek might be a good candidate for funding a study of wildlife bacteria loads versus human induced impacts.
- Neither the Lake Anna Civic Assn., nor DEQ monitor flow volume into Lake Anna; however, there apparently are models that simulate inflow;
- The Soil and Water Conservation Districts can assist farmers individually to find the best cost share programs that will work for their needs - flexible options exist;
- Staging issues and program balance can be addressed by the Steering Committee, as well;

What's Next?

Attendees were encouraged to participate as part of the Steering Committee by contacting Jenny Biche' or Byron Petrauskas before the schedule **Steering Committee Meeting** on June 7, 2011, 6 – 8 PM at the Town of Orange Public Works Community Room, Orange, VA. All meeting notes, maps and presentations, as well as the draft document, may be viewed on-line http://www.rregion.org/tmdl_york.html

The **Final Public Meeting** will be held on June 21, 2011, 6 – 8 PM at the Town of Orange Public Works Community Room in Orange, VA.

Jenny Biche'
Rappahannock-Rapidan Regional Commission
540.829.7450
jkbiche@rregion.org

Byron Petrauskas
Blue Ridge Environmental Solutions, Inc.
540.977.0619
byron.petrauskas@comcast.net

May Sligh
Virginia Department of Conservation and Recreation
804.443.1494
may.sligh@dcr.virginia.gov