

**Upper Roanoke River (Roanoke and Botetourt Counties, Cities of Roanoke and Salem, Town of Vinton)**

**TMDL Implementation (Clean-up) Plan Development**

**Steering Committee Meeting Notes**

**Virginia Department of Environmental Quality, 3019 Peters Creek Rd., Roanoke, VA**

April 20, 2015 1:30 pm – 4:00 p.m.

**Attendees:**

- Mike McEvoy (Western Virginia Water Authority)
- Bill Tanger (Friends of the Roanoke and Friends of the Rivers of Virginia)
- Liz Belcher (Roanoke Valley Greenways)
- Staci Merkt, Tim Miller (Mountain Castles SWCD)
- Cindy Linkenhoker, Tarek Moneir (Roanoke County)
- Christopher Blakeman, Megan Scott, Dwayne D’Ardienne, Patrick Hogan, Karyn McAden (City of Roanoke)
- Anita McMillan (Town of Vinton)
- Ashley Hall, Katie Shoemaker (EEE on behalf of VDOT)
- Jay Roberts, Mary Dail, James Moneymaker, Kip Foster, Charlie Lunsford, Paula Nash, Hannah Cardwell (DEQ)
- Paul Bender, Marcus Aguilar (Virginia Tech)
- Kafi Howard (Town of Blacksburg)
- Shane Sawyer (Roanoke Valley Alleghany Regional Commission)
- Nick Tatalovich, Erin Hagan (Louis Berger Group/DEQ Contractor)
- Josh Pratt (Salem City)
- John Burke (Town of Christiansburg)

**Meeting Agenda**

- 1. Welcome, Introductions and Meeting Guidelines**
- 2. April 30, 2015 Public Meeting Summary**
- 3. TMDL and Clean-up/TMDL Implementation Plan Process**
- 4. Highlights from Clean-up Plan**
- 5. Questions/Comments**

**Meeting Notes**

The group introduced themselves. Mary welcomed everyone and gave an overview of the project including a list of past meeting dates. The upcoming April 30<sup>th</sup>, 2015 meeting was briefly discussed. Nick presented highlights from the Clean-up Plan or TMDL Implementation Plan (IP). Mary discussed follow-up water quality monitoring and citizen monitoring. Nick continued with the presentation of IP highlights. The group discussed specific areas of need within the IP document and introduced their comments and concerns about the draft IP.

**Implementation Plan Staging Questions/Comments:**

Question (Q): In the Glade Creek example when planning BMP installation for the three stages, did you have to add more BMPs in order to get the necessary sediment reductions?

Answer (A): By implementing all of the bacteria BMPs and then adding in swales, rain barrels, permeable pavers, and stream restoration, we were able to meet sediment goals. Bacteria was the limiting factor.

Q: Because bacteria water quality standards are not met, does that impact the sediment load reduction goals not being met until Stage 3?

A: Bacteria and sediment are not always linked and BMPs to address each pollutant are sometimes the same, but not always. BMPs are included to meet their individual pollutant reduction goals.

Q: What is the most effective BMP for sediment reduction?

A: Riparian buffers effectively reduce both sediment and bacteria. Forested riparian buffers reduce bacteria 57% and 70% for sediment; grass/shrub riparian buffers have a bacteria and a sediment removal efficiency of 50%. Livestock exclusion is effective for bacteria and sediment. Sign-up for 100% cost share on livestock exclusion state-wide is still available through June 30, 2015.

Q: What is the benchmark year? When do we start counting the Year 1 of Plan Implementation?

A: After the finalization and approval of the plan and at the onset of BMP installation.

Q: If we already have bioretention ponds established, do we start counting them as Year 1 or do we start counting new installation above and beyond the existing ponds?

A: The original TMDL was based approximately on water quality conditions in 2003 which would have accounted for any BMPs in existence at that time. During the IP process, an attempt was made to account for the existing BMPs and give credit to those installed since 2003, but the Project Team didn't end up being able to acquire specific enough post-2003 BMP data in most cases. A blanket pollutant removal efficiency of 50% was used for the BMP data provided. Waste load allocations are set from the TMDL. For the time since TMDL approval, you would need to identify BMPs and then show progress towards meeting your WLA from there forward. The BMP list that is in the plan is not the only path that can get us to the reductions needed. Other BMPs may be implemented and used to reduce the WLA.

Q: On Glade Creek and Lick Run, vegetative swales and permeable pavers are proposed for Stage III; however sediment reductions are not needed because the sediment goals are met at Year 9 (Stage II). Why would you not use BMPs that would reduce bacteria?

A: The group agreed that this is a good point. The strategy was to spread all of the BMPs over the three stage window in order to maximize flexibility.

Q: Bacteria Quality Milestone, if you were able to build out the watershed with BMPs, we would never reach WQ attainment?

A: According to the model, that is correct.

Q: Mud Lick/Murray/Ore and Roanoke River 1 have Stage III bacteria exceedances of 19% and 18%, respectively; this is greater than the 10% Single Sample maximum criterion. How is it alright for these two watersheds to not reach attainment?

A: Through the amount of available land to put BMPs, this is the only amount of land that BMPs could be placed. The land available for BMPs is maxed out before the bacteria standard can be met. This is the lowest amount of reductions. The proposed BMP implementation used the “maximum extent practical”, which has been approved by USEPA in other Virginia IPs.

### **General Comments about Implementation**

Q: Are there incentives that would entice MS4 permittees to install and/or promote BMPs on the non-regulated urban areas?

A: Implementation of BMPs on land outside the MS4 area is voluntary. MS4 permitted areas are bound by their respective MS4 permits. Environmental stewardship could be the carrot. It was mentioned at an earlier Steering Committee meeting that the downstream MS4 permittees had a vested interest in Part 2 of the IP. Comment was made that localities have a responsibility to their citizens to spend their money. It would be difficult to go to neighboring watershed until you have reduced your WLA.

Comment: There needs to be a watershed commission to work on the entire watershed and to help balance demands and funding. This is needed to bring in stakeholders in more meaningful way.

Comment: Charlie Lunsford talked about the Blackwater River in Franklin County TMDL implementation based on two IPs that were developed (Upper and Lower Blackwater). TMDLs were developed for bacteria and aquatic life impairments. Implementation started in 2000 and has been going on for 15 years. Some segments have been delisted. Roundtables may be an option to work on the entire watershed. Steering Committee could continue to meet if stakeholders would want to do this.

Comment: RVARC can serve as a forum for gathering a watershed group.

Q: Pet waste management is addressed through pet waste management BMPs in the Plan. Can there be a BMP for No Mow Zone outreach?

A: In Chapter 5, the Project Team attempted to capture stakeholder ideas mentioned during the working group meetings. The literature wasn't available to quantify some proposed ideas including education in terms of sediment and/or bacteria reductions or assigning a cost.

Q: What would be the process of including a new BMP into this IP?

A: You would need to have an efficiency for the BMP and for stormwater BMPs the efficiency would have to be approved and included the BMP Clearinghouse. If you are talking about grant money, what is the BMP efficiency. Kip Foster commented that there could be a line included in the DEQ approval letter for BMPs added to the Clearinghouse stating that the BMP could be eligible for inclusion in IPs. Demonstration practices may be used.

Q: Chapter 7 should have some reference to MS4 requirements. Section 8-2 MS4 Action Plans appears to suggest that MS4 participants were not part of the IP. VDOT MS4 permit is the same as everyone else's MS4 permits ONLY in the census urbanized area.

A: In general the MS4 parts of Chapter 7 need to be expanded on. It should be stated that permanent entities have to meet MS4 as well as VSMP requirements. The Chapter 8 discussion on MS4 action plans should be further clarified. The current discussion is basically describing the stormwater requirements; the discussion should describe everything not just stormwater. Also, there was some distinction given to Virginia Western Community College as being a Phase II MS4 permit holder when in fact all the permit holders are Phase II permit holders. Also, the VDOT MS4 permit applies to the Census Urban Area not just the Urban Area.

Comment: David Henderson, Roanoke County, objects to street sweeping being put into the plan for Roanoke County because VDOT will get credit for it. There is no curb and gutter in the county.

Q: Stream Restoration question about MS4, which restoration meets the action plan and which doesn't?

A: If the stream restoration is in the MS4 area, then it could be credited towards meeting the WLA. Stream Erosion may be in the LA or in the WLA. Stream Erosion for the Roanoke River was included in both the Load Allocation (LA) and a Wasteload Allocation (WLA).

Comment: In terms of areas for stakeholder comments, one important section to review and provide comments on is the Benefits of Implementation section in Chapter 5.

Q: Is the GIS spatial data (from IP development) available?

A: Spatial data, especially the targeted data sets, can be made available to help stakeholders plan outreach for BMP Implementation as well as educational activities. Upon finalization of the IP, the data deliverables that DEQ receives will be available. Urban tree canopy is available from RVARC.

Comments from Flip Chart: [IP Comments](#)

- Chapter 7: Beef up MS4 section
- Chapter 8: Action Plan – need to clarify (8.6)
- VDOT MS4 Permit – description update needed
- Spatial data availability → RVARC has Tree Canopy Data
- Roanoke Co. Street Sweeping → omit

## **BMP Tracking Discussion**

Q: The framework for tracking agricultural BMPs exists through DCR's BMP Tracking Program. How are we going to track non-agricultural BMPs?

Q: Can DEQ be a facilitator for the watershed commission?

A: DEQ can participate in a watershed commission, but the idea is that a local entity takes the lead on implementation activities once the IP is complete.

Q: Who is going to be the lead stakeholder?

Comment: RVARC would be willing to keep track of the BMPs. PDC could make a geodatabase with all of the BMP data as provided by the localities and other entities.

Comments from Flip Chart: BMP Tracking

- Watershed Commission
- SWCDs can track some residential BMPs
- PDC → spatial BMP data

### **Funding Sources Discussion**

Comment: Stormwater utility fee money cannot be given to private individuals for BMP installation; however money could be given to a commission of some type. Need to be able to funnel money in a legal manner for BMPs.

Comments from Flip Chart: Funding Sources

- Residential BMP Assistance within MS4 area

### **Post-IP Water Quality Monitoring**

Q: Will DEQ's water quality monitoring stay as it is or will it increase from current levels?

A: IP monitoring will depend on how much BMP implementation has been put into place. Currently there are DEQ 'trend' stations in the watershed (like the Roanoke River station at Lafayette) where monitoring occurs bimonthly. Other watershed stations rotate on and off the sampling list depending on resources and need. There is some flexibility since it is the regional DEQ TMDL staff who recommend monitoring associated with TMDL and IP development. Note that biological monitoring occurs biannually (spring and fall) as needed and the benthic macroinvertebrate communities are linked to the sediment TMDL.

Q: In some areas of the state, there is Level III benthic monitoring (Rivanna River); is that a possibility in this area?

A: There are opportunities for citizen monitoring and there may be interest from local master naturalist chapters. DEQ cannot use all citizen data for water quality assessments, but the localities may be able to use this information to help with their needs. There are environmental groups that have done additional water quality monitoring; this could be a possibility.

Q: To what extent were reductions made on MS4 and non-MS4 lands?

A: Reductions were needed on both MS4 and non-MS4 lands. The IP approach was to consider reductions needed on land uses without regard for political boundaries.

### **Technical Assistance Discussion**

Q: Is there technical assistance for each MS4?

A: This is not for each MS4 entity it's for the landuse/source sector that the Full-time employee (FTE) is needed. Some grants also do not allow money to be spent on regulated areas. For example, EPA 319 grant funds for technical assistance CANNOT be used in an MS4 area. The needed FTEs calculation was based on source sectors outside the MS4 area.

Q: Who will provide the technical assistance for non-MS4 areas?

A: This needs to be decided. Will the localities track BMP activities within their jurisdictions but outside of the MS4 areas? Stakeholder commented that MS4s do not have the resources to track these. SWCDs do have a system in place and could track some of the residential BMPs in their database. The system in place tracks septic system pump-outs, repairs and replacements and a few stormwater BMPs on residential property in targeted watersheds where the SWCD has received a 319 grant.

Q: Can a resident qualify for a septic fix in an MS4 area?

A: Yes, 319 money could be used in the MS4 area as long as the permittee does not take credit for the pollutant load reduction for a BMP and report this as progress in meeting a permit WLA. Helping a resident connect to a sewer line could also be paid for by grant funds within an MS4 area.

Q: Does the IP provide enough FTE resources to assist with the BMP development? Who gets the FTE?

A: Agricultural implementation FTEs go to the SWCDs. FTE positions to address implementation of the residential BMPs (not including pet waste) could be with VDH (if desired). The plan can show a lead agency or agencies. Also, PDCs have gotten technical assistance funds to administer implementation grants as well. The plan can show the intended granted agency.

Q: How did you determine that there needed to be 1.5 FTEs for stormwater BMPs?

A: Tried to look at what was needed by Roanoke County and Botetourt County for technical assistance to implement stormwater BMPs and pet waste management in the non-MS4 areas, including educational outreach.

Comment: It was suggested to not put a number in the plan but to present the expected Technical Assistance needs.

Comment: EPA expects an IP technical assistance cost, but not necessarily a number of FTE positions. It was suggested that the IP state this up front, that a requirement of the IP is providing a cost for technical assistance.

Comments from Flip Chart: Technical Assistance

- MS4/non-MS4
- Less specific with respect to geographic area
- EPA expects a TA cost → specific explanation in IP