

Upper Roanoke River (Roanoke and Botetourt Counties, Cities of Roanoke and Salem, Town of Vinton) TMDL Implementation (Clean-up) Plan Development

Second Government Working Group Meeting Notes

February 28, 2014, 9:30 – 11:30 a.m.

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

Attendees:

- Josh Pratt – City of Salem
- Mary Dail, Diana Hackenburg, Charlie Lunsford, Paula Nash, Emma Jones, Jay Roberts, Derick Winn, Jeff Selengut, Jaime Bauer, Greg Anderson – Virginia Department of Environmental Quality (DEQ)
- Scott Shirley - Western VA Water Authority
- Nick Tatalovich & Erin Hagan - Louis Berger Group
- David Henderson, Cindy Linkenhoker – Roanoke County
- Christopher Blakeman, Ian Shaw, Patrick Hogan, Danielle Bishop – City of Roanoke
- Anita McMillan, Ryan Spitzer – Town of Vinton
- Shane Sawyer – Roanoke Valley Alleghany Regional Commission
- Ashley Hall – EEE on behalf of VDOT
- Bill Tanger – Upper Roanoke River Roundtable, FORVA, FFV, FORR
- John Burke - Christiansburg

Introductions were made and meeting guidelines were established.

Background: The Roanoke River is impaired for both bacteria and sediment. This clean-up plan will describe the strategies needed for reducing bacteria and sediment in the Roanoke River watershed to meet applicable water quality standards. This plan covers the Roanoke River watershed from Smith Mountain Lake to the confluence of Mason Creek and the Roanoke River, which includes 10 subwatersheds. The TMDL identified the loads of bacteria and sediment that the different subwatersheds could receive and still meet water quality standards. From these loads, reductions were estimated by source or land use such as developed, cropland, pasture/hay, etc. Clean-up plan actions to meet these reductions can include indirect measures like outreach, educational programs and signage and direct measures which are more commonly known as Best Management Practices (BMPs). The Government Working Group (GWG) will assist in determining the types and extent of BMPs needed in the subwatersheds that will result in reductions in bacteria and sediment loads. In addition, GWG members will help identify potential partnerships and funding sources for implementing clean up measures included in the plan. The total cost estimates presented are those identified through modeling needed to meet water quality standards.

Handouts & Materials: Government Working Group Meeting #2 Handout, [Best Management Practices Efficiency and Cost](#) (updated Draft), [Best Management Practice Estimates by Subwatershed](#), [Map of Existing BMPs](#), [Map of Livestock Exclusion BMPs Needed](#)

Presentation: The Louis Berger Group (LBG) presented project background and BMP estimation approaches as well as examples from a few subwatersheds. The Project Team reiterated the hope that participants will comment today and review meeting handouts over the next several days and submit comments at a later date. The information presented represents a “first-cut” at estimates of BMPs needed by subwatershed.

Residential Waste Treatment and Pet Waste BMPs Discussion

- Question about Septic pump-outs [BMP Estimates Handout, presentation]: Is unit number representative of 100% or 10% [failure rate]? Answer: 10%
- Q: Is there a place that has the explanation of how the failing septic systems were estimated? A: Not in the hand-out, but it can be added into the presentation so it can be reviewed. Also in the original TMDL documents.
- Q: Are septic systems within 1000 ft from stream on both sides, or 500 ft on each side? A: 1000 ft on both sides.
- Q: Any thoughts on where pet waste stations could be placed? A: Housing complexes, Homeowners Associations’ properties
- Q: How would the government implement any of the residential BMPs? These are homeowners’ responsibilities. A: The plan and presentation includes all of the recommended BMPs. Local Governments may not be able to regulate, however, there may be a role the government can play in educating the public. DEQ explained that once these residential BMPs are in the plan, grant money may be available. The government may be a partner in getting this information out to the public. The BMPs included in the plan bring the opportunity for some money but not enough for the entire watershed.
- Stakeholder commented that there may be a way to require pump-outs when houses are sold.
- Q: Why do pet waste stations have no removal efficiency? A: Input from the group is welcome. Project Team hopes to come up with a way to quantify pet waste. Same is true for composters.
- Stakeholder commented that an educational program is being implemented for pet waste, then you should also do pump-outs with it; this may help low income families.

Detention Pond Retrofit and General Stormwater BMPs Discussion

- Stakeholder comment to BMP Handout: There is a varying degree of efficiency and the total number of that BMP needed. The efficiencies of each category need to be included in the columns.

- LBG discussed how the BMP reductions were halved in the cases where dates of installations were not available. If practices were installed after TMDL development (2003), then they should be available for 100% reductions. If localities can provide this information about BMPs installed after 2003, even if it is an estimated percentage of the BMPs, the plan can account for these BMPs more accurately.
- Q: Why are you looking at pre-2003 or post-2003 for accounting for BMPs? A: The model is calibrated through 2003, BMPs in place pre-2003 would have been included in the development and incorporated in the actual pollutant loads; post 2003 installed BMPs should be accounted for as having an impact on reducing pollutant loads.
- Comments from the group regarding material presented today should be received within the next 30 days.
- Discussion regarding retrofitting detention ponds to increase their efficiencies: stormwater is already feeding these detention ponds, to increase the efficiencies would be more beneficial and practical than establishing new BMPs.
- Q: How was infiltration of the soil in these areas considered? One locality lost two detention basins due to sink holes. Karst needs to be looked at prior to developing detention ponds. Were karst maps studied when BMPs were identified? A: Each site will have to be looked at on an individual basis. The plan is not prescribing specific locations for BMPs; BMPs are recommended on a sub-watershed level based on landuse within each subwatershed .
- Stakeholder commented that we may find that the soil infiltrates too well, which causes another set of issues.
- Stakeholder commented that Karst Maps need to be reviewed; there are areas in the area that would NOT be a good idea for infiltration.
- The plan aims to select BMPs that will reduce both pollutants [bacteria and sediment].
- Q: With respect to manufactured BMPs, how are those efficiencies determined? A: LBG looked at other Clean up Plans and applied those efficiencies in this plan. These are BMPs that have been approved by DCR. Need to cross-reference with DCR's Stormwater BMP Clearinghouse.
- Stakeholder commented that the state is designing the removal rates for these BMPs. Maybe the BMPs will not actually meet these reduction efficiencies.
- Q: Some of the older basins were not designed for water quality; would closing these basins be better than retrofitting them?
- Roanoke City wants to encourage planting trees near impervious areas to increase canopy cover. City of Roanoke wants this to be incorporated as a BMP. This could be added as a land conversion BMP.

- Urban Tree Canopy study GIS layers has different datasets that may be useful like non-building and non-road.
- The efficiencies are based on Type 1 practices. There are also Type 2 practices that are in the 2013 Clearing house practices.
- Is there a way to include inspectors for the BMP practices? A: Yes, this can be included in Technical Assistance costs.
- Stakeholder commented that some of these BMPs will have an annual cost for maintenance. How can we include a cost for this? Can we use an average? Pet waste bags are expensive and there needs to be a mechanism for maintaining the trash cans. Roanoke Roundtable is putting stations in place that have the bags, but not the receptacles to throw the waste in. Could be treated kind of like don't leave a trace, take your waste with you or utilize already maintained trash cans (greenway).

Agricultural BMP Discussion

- Q: Explain the unit for Exclusion of Livestock? A: LBG explained that EPA tracks the BMPs by unit not stream length. The number that is used is an average of the stream length in the DCR BMP database.
- Stakeholder comment: Again, the explanation should be readily available in the document so people understand how the BMP representations were decided.
- Stakeholder commented that for tracking purposes, the [Agricultural BMP] unit needs to be in whole numbers. For accounting this needs to be in whole numbers, due to the same reason as a unit is 1 not 1.2. This is also helpful when you have to show improvement depending on how many BMPs are installed.
- Stakeholder commented that DCR tracks "systems" and also tracks the acres treated.
- Q: Can we find the 269 acres that need vegetative cover? A: Not specifically. LBG evaluated at the entire landuse type and established a 10% reduction to come up with the "269 acres". BMPs are not prescriptive to a certain location/address. They are specific to the landuse type within a subwatershed.
- Stakeholder commented that it sounds like there is not enough information to have a viable plan. A: Project Team is using the available information to develop the best plan possible. Existing published IPs and BMP information is utilized to try to estimate what is needed in order to meet water quality. The plan must include BMPs in a way that established TMDL pollutant reduction goals are met.
- As measures are implemented on agricultural land, who keeps track? Local Soil and Water Conservation Districts (SWCDs) track agricultural BMP installation.

- Q: How do localities ensure that the practices that they put into place are going to be tracked and accounted for in this plan? A: Coordination of all of these entities is what this entire discussion is about. This is another thought as to why steering committee may want to stay involved once the IP is completed.
- Comment was made that the stakeholders are the trackers. Agricultural and residential tracking systems are already in place. MS4 tracking may be required by MS4 permit; this is a question for MS4 staff.
- Since the efficiencies for the BMPs are based on water quality analyses, how can the localities put BMPs into place that are going to reduce the loads?
- Is this [the Clean-up Plan] going to be more prescriptive or are the localities going to have to come up with their own plans? The Plan is being developed to reduce bacteria and sediment loads on different landuse types by subwatershed and is not intended to be any more prescriptive than that.
- Stakeholder commented that as a locality that is downstream of a large agricultural community, there is interest in [the locality] knowing what is going on with BMPs in the agricultural community and is there a mechanism for this? A: The working groups have been separated due to the category of the information, however putting all the stakeholders in the same room would be beneficial. SWCD personnel were unable to attend this meeting, but normally, they would be in the room with the localities (and the SWCDs have a handle on agricultural BMPs). There are opportunities for partnerships due to the “downstream of a large agricultural area” situation.
- The Plan is being developed by stream, is there a way to define the jurisdiction [boundary]? A: Approach has been watershed specific and is not intended to be prescriptive beyond recommending what is needed to meet TMDL reductions for sediment and bacteria.
- Stakeholder suggested that units should be number of BMPs. Units depends on type of BMP.

Stream Restoration BMP Discussion

- Q: With respect to “Total Estimated Stream Length for Restoration” [Planned or Proposed Stream Restoration BMP Table], is this the total length of stream in the watershed? A: No, it is the stream length (feet) that are being considered for stream restoration. It is related to achievement of sediment load reductions.
- Stakeholder requested that total length of streams within the watershed be added to BMP handout.

- City of Roanoke did work in Tinker Creek about 5 years ago and will provide this sending this information to LBG.
- Q: Is Stream Restoration defined? A: Stream restoration was quantified by taking the efficiency and applying it then to the stream length where sediment reductions were needed. Intent was to not limit stream restoration activities by prescribing different stream restoration techniques; thus, stream restoration BMP represents a variety of stream restoration options.
- Stakeholder comment: There needs to be some language in the plan that reflects that the numbers are average units, not actually what may be needed. Some will be higher, some will be lower. There is a significant range in these different real numbers.
- Stakeholder comment: Stormwater handbook has benefits of different stream restoration techniques and referencing this document [Stormwater Handbook] in this plan may be a helpful tool.
- Stakeholder comment: This Plan is a planning document and each BMP will be dealt with on a case-by-case site specific basis.

Discussion of Other BMPs

- Question about Vegetated Swales: Are these reasonable for this Plan? The group affirmed that vegetated swales are appropriate.
- Q: Are there any regulatory restrictions to converting drainage areas to vegetated swales? A: localities couldn't think of any. They don't think there it is prohibited, but it could be hard to overcome some hurdles.
- Stakeholder commented that street sweeping is a challenge for Roanoke County: VDOT owns roads and therefore Roanoke County cannot do this. VDOT does this [street sweeping] very rarely.
- Stakeholder commented that street sweeping is not a 'one size fits all' due to different kinds of sweepers with different efficiencies. Sweepers are expensive to maintain.
- Stakeholder commented that VDOT will be completing an action plan for Roanoke County and there will be more street sweeping in this plan. In the past, VDOT used inmates to physically sweep the streets with brooms and put the sediment into buckets.
- Stakeholder requested that government BMPs should be included in the plan since there are BMPs that they can do on their own property.

- Mary mentioned that Industrial Stormwater General permits were carved out of the MS4 loads. This was based on information provided when their permits were issued/reissued. Industrial Stormwater General Permits received their own WLAs.
- Roanoke County questioned their urbanized area and if their allocation is based on only the regulated area or the entire county? This question will be discussed at the 11:30 MS4 session. Roanoke County's written comments were recognized.
- Stakeholder suggested that the Plan document references in the Stormwater BMP Clearinghouse for more BMPs. Jay Roberts explained that the Clearinghouse BMPs do NOT address sediment but that this would come from 2013 handbook.

Closing Comments

DEQ MS4 staff will be on hand to participate in an MS4 discussion immediately after the GWG meeting. GWG Resources will be posted on the website. Mary will send out draft notes. Group was asked to please provide comments and then the notes will be finalized and posted on the website.