

James River and Tributaries TMDL Implementation Plan – Lynchburg Area

Governmental/Urban Working Group Meeting

Local Government Council Office
828 Main Street; 12th Floor
Monday, August 9; 2:30 – 4:30 pm

Attending

Elizabeth Watson, Peaks of Otter Soil & Water Conservation District (SWCD)
Terri Bollinger, Peaks Otter SWCD
Paula Nash, Dept. Environmental Quality (DEQ)
Jeremy Bryant, Amherst County
Kevin Leamy, Bedford County
Paul Harvey, Campbell County
Timothy Mitchell, City of Lynchburg
Brian Stokes, Campbell County
James Talian, City of Lynchburg
Jeff Scaroni, City of Lynchburg
Megan Sommers Bascone, Dept. Conservation Recreation (DCR)
Erin Hawkins, City of Lynchburg
Ann Evans, NRCS Amherst/Campbell
Philip Davis, VDH-Bedford County
Jordan Mitchell, Bedford County
Steve Simpson, VDH-Lynchburg
Kent White, City of Lynchburg
Bob White, Region 2000 LGC
Jim Kern, Map Tech
Aarron Bowman, Map Tech
Kelly Hitchcock, Region 2000 LGC

Meeting Summary

1. Meeting Goals

Jim Kern provided an overview of the primary goals of the Governmental Work Group meeting:

- Understand TMDL implications for stormwater controls;
- Review/confirm assumptions for stormwater measures;
- Review non-stormwater BMP estimates
- Review/confirm funding sources/partnerships

2. Stormwater reduction methods – impact on reducing bacteria, stormwater, and use within the IP

Allocation Scenarios for achieving fecal bacteria standards

Kern provided an overview of the Allocation scenarios for achieving bacteria standards. It was noted that the tables indicate that non-point source load for urban and residential can be met utilizing traditional BMP practices (ie septic installation/repair and pet litter). Kern noted that while utilizing these methods exclusively within the IP could provide the bacteria reductions, these methods do not provide storm water reductions. Stormwater reductions, through the utilization of green infrastructure, are also beneficial to the LTCP and can be facilitated in conjunction with the IP.

The IP tasks is to establish the best allocation of practices that provide the best “bang for the buck” relative to bacteria removal and meeting the TMDL. The determination for the IP/Stakeholders will be to determine the appropriateness and overall watershed/local value of presented within the IP bacteria BMPs that also provide

stormwater reduction benefits. It was noted the utilization of stormwater control measures can have an impact on bacteria loading, from the reduction of particulates carried in sediments, but more specifically, by reducing the CSO loads during high volume storm events.

The working group reviewed a number of tables provided, that summarized the Potential Stormwater Volume Control Measures as they relate to bacteria removal/TMDL.

Table 1: Impervious surfaces within the City of Lynchburg

Kern provided an overview of the impervious surfaces with in the City of Lynchburg. Similar data is available and can be applied in a similar manner throughout the watershed or narrowed down to specific sewersheds. . Preliminary information was pulled for the City as early discussions were specific to the City/stormwater/CSO issues.

Comments on Table I:

- This table needs to be refined to depict the % of impervious surfaces reflecting the CSO sewersheds.
- Tim Mitchell noted that approximately 10% of the City is within a CSO sewershed.

Table 2: Stormwater BMP cost and volume reduction/detention

Kern provided an overview of the design assumptions associated with the stormwater control measures within the general practices of green roofs, rain barrels (roof-top detention basins), and Bioretention basins, and the estimated cost, cost per foot of treated surface, and the estimated rainfall volume removal efficiency for each practice.

Comments on this table included:

- The desire to see a cost per volume of water removed column.
- associate with the Cost/volume(to be added to table) with bacteria removal

Table 3: Stormwater BMP site-specific volume removal, as a % of rainfall on all impervious surfaces

Kern discussed the numbers within Table 3 represent the percentage of total rainfall that could be removed, which falls on the *impervious* surfaces of the individual impairments, within the city.

Comments on this table included:

- That once the analysis shifts to the sewersheds (as opposed to the impairment watersheds within the city), the percentages will vary depending on the distribution of the type of impervious surface within the new boundaries (rooftops vs. parking lots, etc).

General discussion on the appropriateness of incorporating green infrastructure practices, to what extent as bacteria control measures within the IP, and the overall benefit to the project followed. Key points from the discussion include:

- The City's desire to ensure the IP includes language that refers to the City's Long Term Control as the guiding document in meeting stormwater reduction requirements;
- The need to ensure practices presented within the plan reflect a menu of possibilities but not a commitment to incorporate practices in all cases;
- From a regional watershed and pending stormwater regulations perspective, having green infrastructure stormwater practices within the plan will assist in seeing that these practices are presented as viable options within the area and will present a mechanism to apply for outside funding assistance;
- Data tables need to be adjusted to show benefit on a per watershed basis;
- General information on the use of these practices and percentage of applicability within each sub-watershed will be expanded by MapTech and made available to the Workgroup/Steering Committee.

ACTION: MapTech will provide a draft of wording, percentage of stormwater practice applicability, and associated cost for Steering Committee review prior to submittal to the Steering Committee.

3. Potential Bacteria Reduction Control Measures

Kern provided a summary of the bacteria efficiency, cost estimates, and use estimates for the watershed. Kern noted that a portion of this information was discussed within the Ag/Residential Working Group.

Table 4 – Potential control measure efficiencies in removing E. coli

It was noted that those efficiencies within direct reduction efficiency are associated with direct removal (ie cow out of stream). Efficiency of the other practices is a function of runoff.

Table 5 – Estimation of streamside fencing and number of full exclusion systems required in each impairment

There was no specific discussion or adjustments to this information within the meeting.

Table 6 – Agricultural land-based BMPs

There was no specific discussion or adjustments to this information within the meeting.

Table 7. Agricultural control measure costs

E.B. Watson indicated that the costs associated with loafing lot management was low and felt at a minimum should be more in the \$15,000 range. She also indicated that part of the problem is in the cost per unit factor as the size of the loafing lot depends on the head of cattle.

ACTION: Kern will provide clarification on the cost associated with loafing lot management.

Table 8. Estimated residential waste treatment systems in each impaired watershed

There was some concern on the number of estimated failing septic systems within the watershed. Kern noted that estimated numbers are reflected in the TMDL . Jim Talien noted within the TMDL there was an expressed concern for the estimated numbers of failing septic systems.

Mitchell noted that based on the definition, per VHD, the failing rate shown for the impairments that drain from the city is high.

Watson indicated she thought the estimated numbers are probably accurate if you consider that a number of the systems will be failing in the future given the age of the homes and the systems that are seen through the counties.

ACTION: MapTech will provide verbiage to clarify septic system failure in document.

Table 9. Residential control measures costs

It was noted by a number of workgroup members that the Septic System Installation/Replacement and Alternative Waste Treatment System cost estimates were low. Estimates provided were more like \$8,000 - \$12,000 for septic installation and \$25,000 for alternative systems.

Steve Simpson noted that given the new and upcoming regulations that he predicted in the coming years you would see a much larger use of alternative waste systems, or small treatment- plant systems.

It was noted that a comparison costs related to sewer service needs to be included within the plan. For extension of sewer service to the approximate 25% of City residents still on septic, the City estimates about \$12,000/house for low pressure systems and \$25,000/house for gravity systems. These estimates are valid for installs to whole neighborhoods. If smaller groups of houses are to be serviced, cost per house estimates could be higher.

Philip Davis, VDH, noted that in the Big Otter TMDL IP an overlay map with the residential areas within the watersheds was very helpful as it allowed the health department the ability to guide homeowners to programs that could provide septic upgrade assistance.

ACTION: MapTech to develop a map which overlays residences with sewer/septic boundaries within the watersheds.

ACTION: Provide an estimate of cost of septic repair versus sewer service extension within appropriate portions of the watershed.

4. Potential Funding Sources

Kern provided an overview of funding mechanisms and requested information on any other known options to include within the plan.

Megan Sommers-Bascome noted that National Fish and Wildlife provided grant opportunities, as well as the C'Bay Small Watershed Grants.

Scarono noted that the Virginia Storm Water Revolving Loan Fund include a Green Reserve fund for development of green infrastructure practices.

Watson noted that DEQ has a loan program that can be used to assist with implementation of Ag. BMPs. She did note that the program has specific rules for use but has been used in the part. Ann Evans indicated the program is more of a long-term loan program and could not be used for a short-term payment to off-set cost share.

5. Project completion and Final Public Meeting

Kelly Hitchcock noted that given the complexity of the project and the need to get further input on a number of plan components, a 60 day no-cost contract extension to November 30, 2010 had been awarded by DEQ.

The project must include a Public Meeting and 30-day comment period. It was agreed that MapTech could provide the Gov. Steering Committee updates on the requested information, and hold a final Steering Committee meeting in time for late September Public Meeting.

The TMDL IP Public Meeting is scheduled for evening of Thursday, September 30, 2010 at the Lynchburg Public Library. Details on specific time will be determined.

Prior to the Public Meeting, Map Tech will provide a full draft of the document for committee review.

6. Meeting adjourned

Summation of Follow Up Action Items

ACTION: MapTech will provide a draft of wording, percentage of stormwater practice applicability, and associated cost for Steering Committee review prior to submittal to the Steering Committee.

ACTION: Map Tech will provide clarification on the cost associated with loading lot management.

ACTION: MapTech will provide verbiage to clarify septic system failure in document.

ACTION: MapTech to develop a map which overlays residences with sewer/septic boundaries within the watersheds.

ACTION: Map Tech provide an estimate of cost of septic repair versus sewer service extension within appropriate portions of the watershed.