

# North Fork Catoctin Creek Watershed Project

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## Third Technical Advisory Committee Meeting

December 19, 2018

Meeting Summary

**Location:** Purcellville Public Library, Robey Room  
220 East Main Street, Purcellville, Virginia 20132

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

**End:** 5:00 p.m.

### Meeting Attendance:

Sarah Sivers, VA Department of Environmental Quality (DEQ)  
David Evans, DEQ  
Bryant Thomas, DEQ  
Brett Stern, DEQ  
Karen Kline, Virginia Tech-Biological Systems Engineering (VT-BSE)  
Stacie Alter, Town of Purcellville  
Jim McGlone, VA Department of Forestry (DOF)  
Kinner Ingram, DOF  
James Hilleary, VA Cooperative Extension – Loudoun  
Chris Van Vlack, Loudoun Soil and Water Conservation District (LSWCD)  
David Nelson, Catoctin Scenic River Advisory Committee  
David Ward, Citizen  
Ned Douglass, Citizen  
Tom Doddy, U.S. Geological Society (USGS)

### Meeting Summary:

Sarah Sivers provided an overview of the meeting's agenda and handout and welcomed the guest speaker, Tom Doddy with the U.S. Geological Society (USGS). Mr. Doddy presented on USGS' work looking at nutrient and sediment fluxes of floodplains and streambanks in the Chesapeake Bay watershed. The study looked at data and modeling conducted in small watersheds that informs modeling at the Bay watershed scale, creating a watershed budget for sediment. The presentation was informative and generated questions and discussion with the participants.

Next, Dave Evans with DEQ presented an overview of the implementation process to provide a foundation of what the next phase of the project entails. Following the presentation, Sarah Sivers, DEQ, provided the Technical Advisory Committee (TAC) with a summary of the coordination with EPA to obtain their preliminary comments on the draft TMDL equation. She then lead, with the assistance of Karen Kline, VT-BSE, a discussion of the proposed sedimentation allocation scenarios and implementation strategies and associated costs, using a handout with guiding questions and the proposed options to facilitate discussion. The meeting closed with TAC agreement that a fourth meeting is necessary to wrap up discussions due to insufficient time to complete discussions on all proposed BMPs. In advance of the 4<sup>th</sup> meeting, a draft report will also be prepared for TAC review to provide additional context for the recommendations.

Summarized below is the content of the discussion and comments shared during the meeting:

- Funding Opportunities
  - DOF commented that the Forest Stewardship Plan is applicable for this process but it does not provide funding assistance to implement recommendations. At this time, DOF also noted that the Reforestation of Timberland cost share program is available for planting and managing pine.
- Obstacles / Constraints – Work in the Floodplain
  - Members from LSWCD and VA Cooperative Extension again noted the difficulty in Loudoun County with restrictions on activities in the floodplain (actions that might result in an increase in the flood elevation require a study to review potential impacts). As noted in previous meetings, this is an ongoing issue that has yet to reach a workable solution.
  - They reported that there was a recent meeting with Loudoun County staff in which the message was conveyed that any activity in the floodplain (includes planting trees, fencing, etc.) requires a study and if results show an increase in flood elevation, the plan likely will not be approved.
  - They also mentioned that while DCR (Amanda Pennington) provided to Loudoun County (Bill Cain) guidance regarding fencing, it was minimal and VA Cooperative Extension commented it is insufficient to contain the animals (i.e. guidance on the number of wires per fence for goats is four and for cattle is two, neither are considered sufficient for effective stream exclusion).
  - This issue can result in a hindrance on projects (both local and Bay watershed clean-up plans) to move forward in Loudoun County. It was recommended the issue be elevated to U.S. Environmental Protection Agency (EPA) with hopes they would communicate with Federal Emergency Management Agency (FEMA), which has federal oversight of floodplain management.
  - DEQ said they would talk internally to discuss next steps. However, preliminarily, DEQ plans to address this concern in the implementation plan as a constraint to overcome to implement the plan.
- BMP general comments:
  - It was noted that the proposed implementation strategies do not take into consideration existing BMPs. This information will be updated to include BMPs that were implemented in the last 10 years. Selecting a 10-year cutoff is to provide a level of certainty that those BMPs are still in existence.
  - Two scenarios (based upon the future land use) proposed for sediment reductions. One represents an equal distribution of reductions over all land use types and the second proposes a higher reduction for pasture land, with the remaining share distributed equally among all other land uses. The proposed BMPs in the subsequent tables are proposed for each scenario.
  - It was noted that the total cost for implementation was higher for Scenario 1 due to needing a higher amount of urban BMPs to meet the percent reduction for developed lands.
  - The TAC recommended to keep both scenarios for the time being and apply the recommended revisions to both scenarios for review at the 4<sup>th</sup> TAC meeting.

- Future Land Use
  - Question was received on what the future land use values were based upon. DEQ noted the Catoctin Scenic Creek Advisory Committee looked at future growth and showed an increase in population of about 50-60%. Future growth land use change (from other land uses into developed land use) was estimated at 20%. This was based upon a rough assessment of the Loudoun County online mapping called “Build Out Scenarios” that lists the number of existing residential structures and identifies the ultimate buildout planning scenario based upon current zoning to obtain information on potential future growth development. While that estimated 18% conversion to developed land, based upon the last TAC meeting it was increased to 20% to account for a margin of error. The 20% change in land use was taken from a mix of agriculture uses (67%) and forest (33%). This approach was agreed to by the TAC in the last meeting.
  - It was recommended that VT-BSE also look at Smithsonian’s Changing Land Use Initiative due to the similar work being conducted. Ms. Kline said VT has access to that dataset and will review it for comparison.
  - In response to EPA’s comment that one questioned basing the allocation on future instead of existing land use, the proposed approach is to include a second stage in the schedule. This second, latter stage will include BMPs that are more agriculture focused, which is the land use expected to change (to developed) in the future growth scenario. This second stage provides a conservative approach to address sediment loads from agricultural land uses if the anticipated developed growth does not occur.
- Livestock Exclusion BMPs
  - The initial discussion focused on stream classification, perennial versus intermittent, which totaled 90,000 linear feet (the estimates are based off the NHD dataset.). It was then observed that DCR data shows approximately 79,000 linear feet of exclusion fencing completed in the watershed, which is approximately 4 times the estimated perennial stream length.
  - LSWCD noted that cost share funds are supposed to be used only for those activities on perennial channels, and that they make that determination (perennial versus intermittent) in the field. It was concluded that while USGS data may show a channel as intermittent, it may be determined by local staff to be perennial in the field (streams that typically flow 9 or more months of the year are considered perennial).
  - It was noted that there has been a fair amount of fencing conducted in the watershed and thus the numbers of what is left to do will decrease. LSWCD clarified that the existing numbers for fencing do not include cross fencing.
  - Participants noted that the 35-foot buffer is preferred locally, but recommended keeping the flexibility for a 10-foot buffer (the LE-2T practice) for certain cases. Participants also recommended a split between the two practices of 95 percent (35-foot buffer) and 5 percent (10-foot buffer). Follow-up Note: Table 5 in the allocation scenarios handout indicates that the LE-2T option requires a minimum 15-foot buffer, it actually requires a minimum 10-foot buffer. This correction does not affect the calculations or estimated costs.
- Pasture Management
  - The TAC commented that the percent proposed for afforestation does not seem realistic. It was noted that there are more requests to clear marginal forest for pasture

- than there is desire to change pasture to forested land. Recommended decreasing afforestation to 1 percent of current pasture land.
- Discussion among participants clarified that the SL-11 permanent vegetation practice is intended to address gullies and livestock impacted areas. Often the requires some re-contouring of the land.
  - DOF noted there is a significant cost difference in cost to plant a pine forest versus a hardwood forest, the latter being more expensive. Each results in a different cost than indicated in Table 3. DOF will provide information on these costs for Central Virginia.
  - Participants recommended removing the rotational grazing BMP as it requires the landowner to abide by a strict rotational plan and adding the SL-6T practice for small farm grazing. SL-6T would support a recommendation for a BMP that allows for construction of a dry lot/sacrifice area for small horse farms to address the issue with overstocking of horses. It was recommended the additional step of gravel dust cover for those lots should be encouraged (instead of dirt). It was noted that John Marshall SWCD just was awarded a 319 grant that includes support for equine management practices and they might be a source of information.
- Urban BMPs
    - An attendee commented that the new stormwater management law will require more rain gardens.
    - The TAC recommended a reduction of the Bioretention/Rain Garden practice to 5% of land use (126 acres too high) due to the difficulty of these structures in terms of cost and maintenance.
    - In addition, participants recommended adding the BMP for urban tree planting and increasing the percentage for riparian buffer (grassed).
    - It was noted that the Virginia Conservation Assistance Program (VCAP) can assist with funding urban BMPs, but they are very limited.
    - An attendee questioned if one option could assume conservation practices are incorporated into the new growth within the watershed. If so, the level of urban practices identified might be more realistic.