

# North Fork Catoctin Creek Watershed Project

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## Fourth Technical Advisory Committee Meeting

February 27, 2018

Meeting Summary

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

**Start:** 2:00 p.m.

**End:** 4:00 p.m.

### Meeting Attendance:

Sarah Sivers, VA Department of Environmental Quality (DEQ)  
David Evans, DEQ  
Bryant Thomas, DEQ  
Brett Stern, DEQ  
Ashley Wendt, DEQ  
Karen Kline, Virginia Tech-Biological Systems Engineering (VT-BSE)  
Stacie Alter, Town of Purcellville  
Dennis Cumbie, Loudoun County  
Jim McGlone, VA Department of Forestry (DOF)  
David Nelson, Catoctin Scenic River Advisory Committee  
Chris Van Vlack, Loudoun Soil and Water Conservation District (LSWCD)  
Susan Hayes, General Public (non TAC member)

### Meeting Summary:

Sarah Sivers, DEQ provided an overview of the meeting's agenda and handouts and welcomed the attendees. She noted that two of the handouts (one page showing 3 tables and a memo discussing future land use changes) were not provided in the email sent the week prior sharing the agenda, draft report and a handout with guiding questions and associated tables.

Next, Ms. Sivers provided a summary of updates since the last Technical Advisory Committee (TAC) meeting held on December 19, 2018. She also commented that a working draft of the report was provided, to give context and additional information for the proposed sediment allocations and implementation strategies. She mentioned a discussion of the draft report, when that time comes, may be accomplished through a conference call if the TAC was agreeable.

Ms. Sivers updated the TAC on staff's coordination with DEQ management and VA Department of Conservation and Recreation on restrictions of planting trees and installing fencing in the floodplain, given the most restrictive classification of "floodway" in Loudoun County. She said DEQ understands that the two options that exist are 1) County revisit their ordinance or 2) legislative change to enable trees in those zones. Resulting discussion identified that varying messages have been received by the County and LSWCD as to the viable options available. The County's representative mentioned that following coordination by former Representative Barbara Comstock, 10<sup>th</sup> District, with the Federal Emergency Management Agency (FEMA), it was their understanding that Loudoun County could not propose less restrictive revisions to its "floodway" designation. Also, both County and LSWCD representatives mentioned they heard that a change could be done administratively by FEMA. Ms.

Sivers concluded the discussion that the report could include a note to inform the USEPA of this challenge, but no further action by DEQ seems viable.

Ms. Sivers then led, with the assistance of Karen Kline, VT-BSE, a discussion of the revisions to the TMDL sediment load allocations and implementation scenarios that incorporate the comments received by the TAC at the last meeting. The most significant revision pertained to the future land use change based upon revisiting the analysis done using Loudoun County's Existing and Potential Development Mapping Tool. However, the end result is that the required sediment reductions needed do not change significantly (all iterations are around a 35 percent reduction). The following assumptions were revisited:

- Percent of land developed associated with cluster developments. The type of development assumed for the NF Catoctin watershed is cluster development, described as 1 unit per 5 acres. The 20 percent increase in land use change proposed at the last TAC meeting was based upon the assumption that roughly 0.4 acre of the 5 acres will be developed. This assumption was revisited and revised to assume roughly 2.5 acres of the 5 acres will be developed. This change increases land use change to approximately 138 percent, which results in higher sediment load allocations to transitional/unregulated and channel erosion land uses. Following discussions, the TAC agreed to proceed with 138 percent projection for future growth.
- Percent of land transitioning from agriculture and forest to developed. The original proposal was based upon the assumption increased proposed development was roughly 67 percent in agricultural land and 33 percent in forested land. A closer review found it more equally divided between forested lands and agricultural lands. Following discussions, the TAC agreed to proceed with the scenario that has an equal split (50/50) of land use change coming from those land use types.

The sediment allocation scenario the TAC decided to proceed with is shown in the table on page 4 of 5 of the handout titled "Estimating Increased Suburban/Urban Development in the North Fork Catoctin Creek Watershed" and dated February 27, 2019.

Ms. Sivers' then moved the conversation to the proposed best management practices (BMP) to reduce the sediment loads associated with each land use type. The discussions included which allocation scenario to consider: Scenario 1 (an equal distribution of sediment reduction across all source sectors) or Scenario 2 (assigns a higher sediment reduction allocation to "pasture" land use, for cost-efficiency purposes). The result from TAC discussions was that BMPs identified under Scenario 1 for agricultural and stream channel erosion were reasonable for the watershed. However, the amount of BMPs needed for Scenario 1 for the residential/urban BMPs are thought to be unachievable. Therefore the TAC requested to proceed with Scenario 1 for the agricultural and stream channel BMPs and Scenario 2 for the residential/urban BMPs. This will be reviewed to determine if the allocation scenario can be an equal distribution across all source sectors while still lessening the BMPs numbers associated with the residential/urban BMPs. If it is identified that sediment reduction targets for a source sector cannot be met in this manner, then a proposal will be developed that takes into consideration TAC's recommendations to the extent possible while still meeting sediment reduction goals for each sector.

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

- Future Land Use Changes
  - Comment that the assumption for cluster developments of 2.5 acre developed of the 5 acres may be a bit low given that a large lot may be mowed in its entirety. However, through conversation and understanding this value represents an average for the entire watershed, it was agreed as reasonable.
  - Clarified that existing protected lands are considered in modeling.
  - Question from general public as to how nutrients and other environmental issues associated with development are addressed by this plan. It was explained that the focus of this plan is to address a water quality issue stemming from an excess of sediment. It was also noted there are other plans that address environmental concerns, such as Chesapeake Bay Watershed Implementation Plan which addresses nutrients and sediment.
  - Loudoun County provided information that stormwater BMPs are required for any development with greater than 16 percent impervious surface area. It was noted that typically with large lot subdivisions, the percentage of impervious area is less than that value, so most new development does not require stormwater BMPs.
  - A member commented that future growth will not be instantaneous, but gradual over time. It was clarified that the allocation for transitional, unregulated land use was assumed to be the amount at any one time. Also, the purpose of having a Stage 2 was reiterated, which is in case development does not occur as anticipated in the future growth scenario, Stage 2 (which focuses solely on implementation of agricultural BMPs) would need to be implemented.
- Stream Channel BMPs
  - Recommended increasing stream restoration to 500 feet as one project may reasonably be that large due to equipment deployment costs for such projects. A potential location is not yet identified, but the TAC felt confident such a project may be considered.
  - The following question came up regarding stream restoration and buffer planting associated with banking, either for stream or wetland mitigation or for nutrient credits: If a bank is only selling nutrient credits (nitrogen and phosphorous) and not credits for sediment, can the benefit the project provides for sediment reduction be applied to the watershed its located in? Similarly, if the bank is for wetland or stream mitigation, can the sediment reduction benefits be applied to the watershed its located in? There's potential for a bank in this watershed and question arose if the sediment reduction benefits could be applied to this watershed project. DEQ staff present did not have the answer but will coordinate internally and circle back with the TAC.
  - TAC agreed that the Scenario 1 values for stream bank stabilization were reasonable.
- Agricultural BMPs:
  - Comment the values for pasture management BMPs are good goals, but uncertain if achievable given difficulty landowners have with implementing a rotational grazing plan due to its need for intense management. The Loudoun SWCD representative observed that cost-share funding is not provided for Pasture Management unless it is combined with a Stream Exclusion Fencing practice. New tools are needed to assist with implementation of this BMP to benefit sediment reduction goals (in addition to the nutrient and bacteria reduction benefits provided), such as cost share for sacrifice lots.

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- A comment was offered that to help evaluate the viability of the pasture management recommendation, it would be useful to determine how much pasture management is associated with the Livestock Exclusion Fencing practices (LE-1T and SL-6T) that are recommended.
  - Another comment was made that combining Hay and Pasture in the same land use category raises a concern, as pasture land which is not mowed will have much less soil compaction and stormwater/sediment runoff than hay land that is mowed twice annually.
  - The values for cropland BMPs in Scenario 1 are reasonable for the watershed.
  - Recommended adding BMP specification codes for each practice to improve understanding of the proposed BMP.
  - Comment that 4 acres of riparian buffer represents planting along one side of 1,700 feet of stream or both sides along 850 feet of stream, which is not much. Recommended reevaluating the potential for more to occur. It was noted that riparian buffer planting is also part of the livestock exclusion BMPs, so need to take both BMPs into consideration when considering potential for buffer planting. Karen Kline observed that the recommended BMP level was kept relatively low in light of constraints on planting within the floodway. There was discussion that establishing grassed buffers would allow for natural tree growth over time.
  - Comment the Virginia Agricultural Cost-Share (VACS) program is considering changes that may lead to new or revised BMP specifications. One under consideration is buffer width for livestock exclusion fencing. Recommended the plan acknowledge potential change in a narrative manner to enable those BMPs to be eligible to be funded with Section 319 grant funds.
  - Residential/Urban BMPs:
    - Recommended separating bioretention and rain gardens (currently grouped) into two categories due to the differences in costs to implement each BMP. Also, commented that the proposed 333 acres treated, if solely done by rain gardens, is not realistic as it would require approximately 14,000 rain gardens (assuming each treats roughly 1,000 square feet). Therefore, this value should be reduced. It was noted that while rain gardens have limited sediment reduction benefits, they are good educational tools and should be retained as an option.
    - Request for clarification on the BMP for erosion and sediment control. It represents those BMPs put in place temporarily during construction activities, which addresses transitional, non-regulated land use. Comment that the number of acres treated could be increased higher than 8 due to confidence that a 100 percent of development that occurs will have those types of BMPs implemented. The County requires a grading plan for any land disturbance greater than 5,000 square feet. Also, recommended to change the units for this BMP from “acres” to “acres treated.”

Ms. Sivers’ concluded the meeting with thanking those present for attending. She mentioned that the revisions discussed and comments provided during the meeting will be incorporated into the sediment allocations and proposed BMPs and the draft report updated accordingly. Once completed, those revisions will be summarized in a document and shared with the TAC, along with a revised report for context and additional information. Depending on the extent of the revisions, the next gathering of the TAC may be a conference call or an in-person meeting. Ms. Sivers’ also informed the TAC that once the report is in a more complete draft form, she will be requesting the TAC’s review of the report (or those sections they are most interested in) for their comment.