

TMDL Community Engagement Meeting #1 - Watershed Cleanup Study for Benthic Aquatic Life Impairments on Appomattox River Tributaries:

Crane Creek, Harris Creek, Horsepen Creek, Nibbs Creek, North Branch Sandy River and Rice Creek located in Amelia, Appomattox, Buckingham, Cumberland, and Prince Edward Counties

June 4, 2026

Farmville-Prince Edward Community Library

1303 W. 3RD St., Farmville, VA 23901

10:30 a.m.

MEETING SUMMARY

Attendees: 7

Charles Woottox – SWCD, Piedmont

Denise Moyer – VA DEQ

Doug Stanley - Prince Edward County

Dustin Woodall – SWCD, R.E. Lee

Jackson Barnett – VA DEQ

Karen Kline – VA DEQ

Madison Whitehurst – VA DEQ

Tyler Smith – SWCD, Piedmont

Appomattox River Tributaries TMDL Meeting Overview

- Introductions were given
- It was noted: The impaired segments for Big Guinea Creek (VAP-J06R_BGU01A98), Briery Creek (VAP-J05R_BRI01A98), Bush River (VAP-J04R_BSR01B10), and Sandy River (VAP-J03R_SDY02A12) will be removed from the TMDL study after subsequent sampling indicated that aquatic life now meets the standard. These streams are set to delist in the 2026 Integrated Report cycle, pending EPA approval, but they may reenter the study depending on the outcome of that approval.
- Recap of Stressor ID Analysis indicating sediment is a probable stressor in each of the impaired streams

TMDL modeling approach

TMDL requires an endpoint or water quality goal to target for the impaired watershed(s). Many pollutants have numeric water quality criteria but sediment does not because acceptable levels are expected to vary from stream to stream based on a range of contributing factors. Therefore, an alternative method is used. The proposed method is called the “all-forest load multiplier” (AllForX). It looks at existing sediment loads compared to an all-forested undeveloped condition. A regression is developed between the Virginia Stream Condition Index (VSCI) scores and the AllForX ratio.

- **Question/Topic:** *Are there any good comparison watersheds or healthy watersheds to compare the impaired watershed to for the AllForX modeling?*
 - Can we use the watersheds that were just delisted as comparisons for our currently impaired sites? DEQ response: Yes, if they are similar in size and land use.
 - Holiday Creek would be a good unimpaired stream to include in the regression. It is a trout stream that will be in the upper tier in terms of quality. It is fairly close to Crane Creek, aside from land use, it should be representative of topography and size.
 - Buffalo Creek is likely similar to Briery Creek and others in terms of silt- housing construction, agriculture, and timber in that watershed. They would imagine we would see the same thing as Briery and Bush Creek watersheds.
 - Discussion indicated there is noticeably elevated sediment in the streams. Most streams that have similar land use to these streams also have similar sediment issues. Many have rock and sandy

bottoms with silt on top. Significant sediment pooling is noticed in smaller tertiary streams and tributaries. It's unclear whether this is a characteristic of Piedmont streams, but it seems more likely to be caused by sediment inputs from the surrounding landscape rather than in-stream erosion. Recently deposited leaf packs buried under silt—which is not natural—indicating high levels of land-derived sediment was noted, though the exact source is still uncertain.

Modeling Inputs Land Cover

- **Question/Topic:** *Does the land cover seem reasonable? Livestock exclusion in these watersheds? Do you know of any recent or planned land cover changes that we should be reflecting?*
 - Distributions of the land use maps are likely correct, but the fairness of pastures should be corrected. Most pastures are likely overgrazed. Most landowners are overstocked with cows for the amount that should be on land. 2.1 acres/1000lbs of livestock. We can look for how many people are getting less than half of their livestock paid for because they are overstocked- this will be quantified soon. The overall pasture quality was estimated to be primarily poor (~60%) to fair (~40%). There are some good pastures but the majority are not “good” since they are overstocked. Lots of overgrazing is likely coming in the future as a result of the drought. The drought hasn't been great for hay production which will likely lead to overgrazing in the next few years. DEQ said they will adjust the pasture quality numbers in the model to reflect similar percentages with the addition of good pasture (~10%).
 - Most croplands in the watersheds use conservation tillage or no tillage. Aside from small garden or “football sized fields” conventional tillage is not typically used.
 - The best source of hay and pasture data is the Farm Service Agency (FSA) crop report. Pasture fields that are used for hay occasionally will likely show up as pasture. They should provide data on a watershed or county basis.
 - The use of the VGIN 2016 VLCD in the model due to similar listing/sampling time frames was discussed. It was suggested to look at more recent land cover due to changes in the watersheds and recent harvesting. Additionally noted is that the harvested hardwood forest is usually replanted with loblolly which are thinned and harvested more frequently. New projects taking place in the next 10yrs will drastically change it as well. Not comfortable using land use data that is 10yrs old due to all the changes. DEQ said they will look at more recent land use in the model.
 - There has been a lot of work done for stream/livestock exclusion in Sandy and Briery Creek which has likely led to the potential delists. Buffalo Creek has 9 water control dams which should help to catch sediment in the watershed. There are not a lot of practices in Harris Creek watershed aside from one land owner, however, there is a lot of forest there and not much agriculture or housing development.
 - Horsepen (JA05) in Buckingham County- likely pine stand (seen on google maps) that is contributing to this issue, not much else going on in this area so it isn't one they would think would be impaired since its mostly forest and wildlife management area.
- **Question/Topic:** Input on Pollutant Loads?
 - There is not much channel erosion- most are well established and the slopes are stable. Tributaries may be different, however, main channels are set.
 - There was surprise at how high the loads are for hay land use. Pasture should be higher, hay likely lower.
 - DEQ indicated remodeling with good, fair, poor pasture updates will change pasture loads. Adding more harvested forest from our discussion will change those loads as well.
 - There are some instances of cover crops that are also being cut for straw.

- Current buffers (even if appropriate at 35-50ft) will not stop inputs from overgrazing during large rain events if slopes are steeper.
- Droughts have also influenced amount of deposition in this past year.

Permitted Sources

- **Question/Topic:**
 - It was suggested to look at the county's comprehensive plan and solar farm projects for future growth and development.
 - [Permitted sources will be developed at a later stage]

Existing BMPs

- **Question/Topic:** *Do the BMP counts seem reasonable?*
 - DEQ will pull from BMP warehouse as well which may have some that were not submitted through DCR and some that didn't go through cost-share programs.

Meeting adjourned at 11:50 a.m.