Hat and Black Creek Community Engagement Meeting

Nelson Memorial Library, Lovingston

December 3, 2024

Participants

Robert McSwain (NCSA)
Robert Saunders
Dick Whitehead
John Pfaltz (TJSWCD)
Reid Copeland
Nesha McRae (DEQ)
Bill Perry (DOF)
Conny Roussos
Ernie Reed (NCSA/NCBOS)
Mike Yager (TJSWCD)
Courtney Harlow Humphries (TJSWCD)
Tara Wyrick (DEQ)

Summary

Nesha McRae (DEQ) reviewed the meeting agenda and noted that the goal for the meeting is to select an implementation scenario for best management practices to meet sediment and phosphorus reduction goals identified in the TMDL study. The group will also develop an overall project timeline and discuss education and outreach strategies.

A participant asked whether they would still be able to comment on the TMDL study. Nesha explained that the study would be presented at the final public meeting along with the implementation plan, and that this meeting would be followed by a 30-day public comment period.

A participant asked how success will be measured . Nesha explained that monitoring of benthic macroinvertebrates would be the ultimate measure of success since this is what resulted in the impairment listing of the streams. The group discussed the threshold for impairment listing and Nesha noted that Hat Creek is considered a borderline impairment, bouncing around the impairment threshold.

Agricultural BMPs

The group reviewed a table showing potential agricultural BMPs that could be implemented to accomplish sediment and phosphorus goals for agricultural sources. Nesha explained that the table shows both the extent of each BMP needed and the % of the associated land use that would be treated. Nesha encouraged participants to share thoughts on BMPs that should be increased or decreased considering likelihood of implementation, costs and balances between different land uses. Some practices were included just to be sure that funding could be used in the future in case of grant awards (WP2W). A participant asked whether DEQ follows state cost-share guidelines (difference between SL-6 and WP2W). Nesha responded that DEQ utilizes the same guidelines and specifications as the VACS program. A participant asked about the units shown for livestock exclusion fencing. Nesha explained that the feet shown reflect feet of fence needed (a 100-foot section of stream needing fencing on both sides would be shown as 200 ft). Nesha added that the % of land use treated for fencing reflects unfenced streams in pastures rather than total feet of stream within each watershed. Nesha reviewed the different fencing practices and different buffer

widths. She also noted that there is a fencing practice that only provides funding for fence and does not include support for developing off stream water sources. This practice is typically not very popular and was included in the plan as a placeholder in case there is any interest. Nesha explained that in watersheds where streams frequently flood, buffers need to be wider to avoid washing out of the fence. In watersheds with narrow pastures and smaller farmers, producers may want more narrow buffers because they can't afford to lose the land. A participant noted that the SWCD has had a lot of success pairing state ag cost share funds with federal cost share funds to get 100% cost share for farmers. He asked whether the same could be done with DEQ grant funds and VACS funds. Nesha was not sure and offered to follow up on that. One landowner said that when he installed fencing on his property, he was able to extend buffers back 100 feet on some portions of the stream, but not everywhere on his property due to steep slopes and taking too much land out of pasture. Nesha described the improved pasture management practice (rotational grazing, including waterers) noting that it will be tough to get a goal of 68% of Black Creek pasture. This practice was included at such a large extent to avoid including too much conversion of pasture to other land uses including forest. While planting something in trees results in the greatest sediment and phosphorus reductions, the goal of the plan is not to limit agricultural production in the watersheds or change the overall character.

The group reviewed BMPs for cropland in Hat Creek (none in Black Creek). While the extent included is very small, these practices were included in case landowners were interested in implementing these practices.

There are not many options for BMPs on hayland. Most of the agricultural land next to the streams is used as pasture, so there aren't many opportunities for buffers. A participant asked how much sediment hayland really contributes to the stream. The groups discussed manure and fertilizer applications to hayland along with how runoff can occur when hay is harvested.

DEQ has not delt with BMPs for vineyards much in the past. Grass filter strips can be used between rows of vines to treat runoff. The permanent vegetative cover practice can be used for targeting critical areas of erosion to cover and keep in place. The group discussed the use of cover crops between trellises. There was not a lot of knowledge base in the room on this, but participants seemed unsure about practical application of this practice. A participant asked if the 71 acres of vineyards in the Hat Creek watershed include orchards. Yes – grouped vineyard and orchards together. Nesha will look at other options since the group seemed worried about whether cover crops would make sense for these areas. A participant asked what the sediment reduction efficiency of cover crops on vineyards was. Nesha was unsure and offered to follow up on that (its 10%, not very much). The group agreed it could be left in the plan but in a reduced amount.

Urban/developed BMPs

Nesha explained that while there is not a lot of urban/residential land in the watersheds, there are a lot of nutrients are coming from urban land uses. Nesha review the urban BMPs with the group. Most of the BMPs included in the table are practices designed to capture and increase filtration of stormwater/sheet flow of stormwater. They are expensive! Wetlands/wet ponds can treat a larger drainage area. The group discussed potential locations for wet ponds and asked for examples

implemented in other areas. Nesha mentioned a wetland project completed in the City of Waynesboro that had been well received by the local community. There are not many good locations in Black Creek to install something like this since there aren't many subdivisions with any sort of regional stormwater drainage system. There may be one or two opportunities though, so it would be best to leave this practice in the plan. All of the turfgrass practices are in Soil and Water Conservation District's VCAP program, which can be used as a resource by homeowners to help pay for these practices. TJSWCD representatives suggested that if we want to align this with VCAP, we should increase the extent of conservation landscaping, and also add rain gardens. The VCAP program also provides financial assistance for stormwater conveyances (swales) and wetlands, but they are expensive and therefore rarely implemented. Impervious surface removal and permeable pavement could be added to the list as well, these are in the VCAP program. Nesha noted that she had left these practices out due to the cost and maintenance needs, but that she could put a small amount in so that they are an option of property owners are interested. Rainwater harvesting and impervious surface removal would also be good to include as options.

A participant noted an error in the urban BMPs table in the % land use treated columns for Hat and Black Creek. Nesha responded that she would correct the error and send out an updated copy of the handout to the group.

The group discussed BMPs for gravel roads, which is also something that DEQ has little experience with in the TMDL program. Nesha noted that she did some research and found that Penn State has a dirt and gravel roads institute that conducts research on gravel road BMPs and sediment reductions. Nesha described gradebreak installation and drainage outlet BMPs, which were included in a Penn State study. Nesha also reached out to the Department of Forestry and received some great information on BMPs for forest roads. A participant asked about the units for these practices. Nesha explained that the units reflect the number of each practice. The sediment reduction was based on an average road width of 24 feet. Nesha could not recall the length of road used to determine treatment area in the Penn State study (follow up: a length of 50 ft was used).

A participant asked whether funding would only be available for the extent of each BMP included in the plan, or if more funding would be available for practices if goals were surpassed. Nesha explained that the plan is intended to serve as a guide, but that if we found there was more interest than originally anticipated for a practice, funds can usually be shifted around to support further implementation.

A participant asked whether the gravel road BMPs are intended for VDOT roads or for private driveways. Nesha explained that the land cover data used to develop the TMDL did not likely catch all the private gravel driveways and that most of the gravel roads included in the study are probably larger roads maintained by VDOT. However, that does not mean that we could not work with private landowners on these projects and try to reach out to VDOT regarding potential projects. A participant asked how best to address compacted dirt roads. Gravel could be added to these roads to reduce erosion and runoff, but this is very expensive.

A participant asked how DEQ differentiated between hayland and pasture in the study. Nesha explained that the Non-Point Source Assessment breaks down hay and pasture land for different hydrologic units across the state, and that this ratio can be applied to the project area falling within each watershed. The participant commented that the goals for pasture seem very high and that we

are putting a lot of weight on reductions for this land use. It could be that we have more hay or turfgrass in the watersheds than we realize. Nesha responded that the goals for pasture are higher because there's not that much that can be done for hay besides planting trees. A participant commented that they don't really work with BMPs for hayland often in the state agricultural cost share program. If we find that we have less pasture and more hay and turfgrass in the watershed once we begin implementing the plan, resources can be shifted. The plan is intended to be a starting point but is not set in stone.

Streambank stabilization

The extent of streambank stabilization needed in both watersheds is relatively high. We agreed on 6% for Hat Creek previously, and phosphorus reductions needed in Black Creek are driving up the extent of streambank stabilization we need in the watershed. Nesha noted that the % of streambank to be stabilized it based on the amount of eroding streambank, not the total amount of streambank in the watersheds. Nesha estimated the percent of eroding bank (30% for both watersheds) based on the streambanks scores collected at DEQ biological monitoring stations in the watersheds. DEQ has 3 stations on Black Creek and just one on Hat Creek. While a stream walk would give us a much better idea of what all the streambanks look like in the watersheds, this is the best data that we have to make this estimate. The costs are high to do even this amount. A participant asked whether there are cost-share programs available for this practice. Nesha responded that there is a streambank stabilization practice in the VACS program, but it is insufficient. A participant noted that it is very hard to meet the criteria for this practice, including the requirement that erosion must be caused by runoff from surrounding fields (not the stream itself). A participant asked whether rocks are used to stabilize eroding banks. Nesha explained some of the natural channel design methods used including laying back the streambanks and stabilizing them with vegetation. In stream structures may also be used but they can get expensive. A landowner offered that VDOT has done this and paid for it to compensate for small stream impacts in another part of the county/area. There are two projects on the Rockfish River that are interesting to look at. The Division of Wildlife Resources has a staff member trained in natural channel design. We have found that working with them on projects can really help bring down the cost. A participant commented that WSSI did a stream restoration project in Lynchburg with rocks armoring the bank and planting lots of shrub trees on the opposite bank. We could do a tour of existing sites as part of an education and outreach effort. A participant commented that this is a very large goal for this practice given the cost.

BMP Costs

The group reviewed estimated BMP costs. A participant asked why there was such a large difference in the cost of one 35 ft buffer fencing practice compared to another. Nesha explained that the second practice does not include development of off stream water sources. It was noted that the urban BMP costs are almost 2x as much as agricultural BMP costs but are treating far less land. Hat Creek has more wriggle room in terms of the extent of BMP implementation that is needed to address the impairment. Nesha noted that compared to other implementation plans she has been involved with in the area, these costs are reasonable. In addition, the TMDL and the

plan are conservative and include a margin of safety and an allocation for future growth. It is likely that conditions could improve faster than expected.

Project timeline

The group discussed an appropriate timeline for implementation. Participants agreed that the goals are ambitious. Nesha explained that after the group agrees to an overall timeline, she will develop two implementation phases with milestones to evaluate progress. She noted that most plans have a 10–15-year timeline, but that it's up to the group to determine what they think is appropriate. DEQ doesn't set rules or requirements for when this must be done. A participant asked about commercial and other developed areas in the Black Creek watershed. Participants reviewed acres of impervious and pervious developed areas in Black Creek and studied a map of the project area. It as noted that a small area marked as hay/pasture on the map is actually cropland. Another area classified as hayland may be turfgrass. Nesha offered to look back at the TMDL to see if these things could be adjusted, but that it is late in the process to make these changes. The group returned to discussing the project timeline. One participant suggested that the timeline not be too long and put 10 years out for consideration. Another participant noted that DEQ grants are usually 3 years long and suggested a longer timeline. A participant asked how monitoring would work following completion of the plan. Nesha explained that DEQ would return to monitoring sites in the watersheds two years after implementation had begun to allow for BMPs to take effect. At this point we would resume spring and fall biological monitoring for 1-2 years depending on results. The group discussed how long it can take for BMPs to reach full efficiency, particularly those that involve trees. A participant asked if improvements accelerate after the first few years of implementation. Nesha said that she was unsure and that results were probably pretty site specific.

Participants agreed on a timeline of 12 years.

Education and Outreach

The group discussed traditional outreach strategies including Cooperative Extension field days and farm tours. Nesha noted that she had a lot of success working with the Nelson County Farm Bureau to promote meetings. A participant noted that the Nelson Knows Facebook page was a good way to share information. TJSWCD could help DEQ with posting meeting announcements and other information. A participant commented that more people read the Facebook page than the local newspaper, but it is a rotating event posting so information isn't available for long. A participant commented that DEQ needs to update their contact information for the Nelson County Times newspaper (new contact – Emma left). Nesha commented that for the first public meeting, we had great luck with a postcard mailing to large riparian landowners. A participant suggested reaching out to smaller landowners as well, since many smaller parcels are often managed by a group of owners as a whole. Nesha responded that she would try, but did need to be aware of postage costs. Nesha asked for input on where to hold the final public meeting. The Nelson Center has a large auditorium, and Cooperative Extension has an office in there. They typically

charge for use of the facility, but you can always ask for a waiver. The Rockfish Valley Community Center and the Massies Mill Ruritan Hall were also identified as good meeting locations.

A participant noted that the outreach strategies listed on the meeting handout are nothing new and that there's not a lot of new farmers. Local farmers have already heard all this information before. He noted that the lofty goals for residential and urban areas will be hard to meet, and that it will be very difficult to reach out to all the smaller landowners in the watersheds. Another participant commented that maybe additional funding would be helpful in overcoming these challenges. Being able to offer 100% cost share could be a HUGE selling point along with being able to provide the funds upfront so that the landowner does not have to handle the costs until the project is complete (DEQ has ag loans, TJSWCD has contractor-direct pay).

Nesha thanked participants for attending and the meeting was adjourned.