

Rockfish River TMDL Local Steering Committee Meeting Notes

February 1, 2011

Rockfish Valley Community Center

The Local Steering Committee (LSC) meeting began with quick welcome by Tara Sieber from the Virginia Department of Environmental Quality (VADEQ). The participants were then asked to introduce themselves; thirty people were in attendance. Tara then turned the meeting over to Gene Yagow from Virginia Tech's Biological Systems Engineering Department (VT-BSE) who are the contractors for the Rockfish River project.

Gene began the discussion on Taylor Creek, a tributary of Perry Creek and the North Fork of the Rockfish River. Taylor Creek is impaired for aquatic life, which means that it doesn't meet the water quality standard for a rich, diverse aquatic community. This is determined by a VADEQ survey of the benthic macroinvertebrates, or bugs that live in the niches of the streambed. The question was brought up: what are some good bugs vs. bad bugs, so Gene and Tara described mayflies, stoneflies and caddisflies, which are very intolerant of pollution. Another participant asked whether the Taylor Creek watershed is compared to mixed-use watersheds or pristine watersheds to determine whether it is impaired. Gene answered that it was a matrix of the Virginia Stream Condition Index which measures the abundance and diversity of the aquatic organisms regardless of watershed land use, and the score needed to be above 60 for the stream to be considered healthy. One attendee asked what the rest of Nelson County streams looked like, and Tara promised to bring that data to the next LSC. She knew that most streams were considered healthy for aquatic life, though the Tye River, Piney River and Rucker Run were all bacterially impaired. Gene continued to review the land use data for the Taylor Creek watershed and how the Stressor Analysis was conducted. VT-BSE reviews all existing data using a weight of evidence approach to identify the aquatic life stressor (or pollutant) and its potential sources. Pollutants are then placed into three categories: eliminated stressors, possible stressors and most probable stressors. Thus far, the eliminated stressors include: ammonia, hydrologic modifications, metals, pH, total dissolved solids/conductivity and temperature. The possible stressors which are still being evaluated are: nutrients, organic matter, sediment and toxics. Gene reviewed the evidence for and against each of these being a most probable stressor, and then asked the LSC for its help in answering the following questions:

- What is the number of cattle and livestock that have access to the creek? What happens to the waste from these animals? Has there been any crop cultivation that required large applications of artificial nutrients prior to 2008?
- Has the growth of aquatic plants/slime/algae been observed in the creek? What species of fish can be found in Taylor Creek?
- Has fertilizer or pesticide related orchard supplies been stored in the Heards area?
- Does Taylor Creek even run dry?
- What is the estimated population of Taylor Creek?

Gene concluded his presentation by discussing the possible Best Management Practices (BMPs) that could help any of these possible stressors, reminding the LSC that after identifying the issues impacting Taylor Creek in the TMDL process, the Implementation (or Clean-up) Plan process will begin. Also, other planning efforts impact nutrients and sediment, including the Chesapeake Bay TMDL and County Stream Assessment Projects. Gene reiterated that input is needed from the LSC to fill in some of the gaps in knowledge about Taylor Creek and he thanked the Committee for its time. The question of who was responsible for the BMPs was raised, and Gene and Tara answered that it was up to individual landowners to implement the practices that they believed would help the most on their property, but that sometimes County ordinances did help. Another attendee was concerned that the last few years have been very dry – how would the stream be impacted with a larger stream flow? Gene answered

that this would tell VT-BSE whether the pollution was point source or non-point source and modeling will take into account both high flows and low flows.

The next item on the agenda was the review of the North Fork, South Fork and mainstem Rockfish River bacteria data. Karen Kline, also of VT-BSE, began reviewing the provided handout after a quick stretch break. She also repeated Gene's request for local data and information in order to make the model as accurate as possible. The first topic covered was the general characterization of the watershed. Karen discussed the breakdown of the subwatersheds and the addition of another Taylor Creek subwatershed due to the impairment continuing to the confluence with the North Fork of Perry Creek. So, the handout's NFR-8 subwatershed should be TC-1 on the map on page 4. From there, TC-1 becomes TC-2, and so forth for Taylor Creek. A participant asked how will the data and estimates VT-BSE is asking for will be used. Karen said that it will inform the model and help them make it as precise as possible. An attendee asked about the recent Master Naturalist's study of the North Fork of the Rockfish River, and whether that will be helpful to calibrate the model. Karen answered that it certainly would be used. Several attendees asked about seeing a larger subwatershed map, and the Friends of the Rockfish offered to put a large image on their website. They will work with Karen and Gene to make that map as well as several other documents available to everyone. The website is www.FORwatershed.org. A discussion regarding how VADEQ uses citizen monitoring data, like that from the Friends of the Rockfish and the Master Naturalists, began. James Shiflet, Water Resources Planner with the VADEQ Valley Region, was able to summarize the process. Although citizen collected data cannot be used to list and delist streams from the "dirty waters list" or impaired streams list that VADEQ reports to EPA, it can be used to get a better and more complete picture of what's going on in the watershed – such as filling in gaps between VADEQ monitoring stations, tributaries where VADEQ doesn't have a monitoring station, etc. James emphasized that citizen monitoring data is looked at and is very important to the stream assessment process. He also reviewed the rationale behind drawing impairments all the way to the headwaters of the South Fork of the Rockfish, which is due to the fact that VADEQ has only one monitoring station near the mouth of the watershed. Karen continued to discuss the handout, moving on to Land Use in the watershed. A participant asked whether hayland was included as pasture or cropland, since it didn't have a landuse category of its own. Karen responded that hayland was included in the pasture category, though the bacterial impact of hayland would probably be closer to cropland. Karen then moved to discussing livestock estimates in the watershed. An attendee noted that donkeys were missing from the NASS Census of Agriculture. Another participant worried that the beef cattle numbers were too high, and perhaps the real number would be much closer to 1000 total. Virginia Cooperative Extension offered to work with VT-BSE to come up with some more reliable numbers. The group worried that the number of beef seasonally changed due to fluctuation in the market and weather conditions, etc. Perhaps a drive-through tour of the watershed counting livestock with some local producers would be helpful. Some questions arose regarding other livestock numbers. Although poultry litter application was not a wide-spread practice, the group said that it did occur in the Rockfish watershed. Tara offered to get the official litter transfer records from VADEQ's Central Office and share them with VT-BSE to better inform those estimations. The next topic Karen covered was wildlife numbers. The LSC believed that several wildlife species were left out, including possums, bears and skunks. Also, several participants worried about how to count the numbers of Canada Geese because although they live near water, they move around a lot and they have a year-round presence in Nelson County. Discussion then continued onto the Human Population numbers. Karen reviewed the 2000 Census data, which is all that is available at this time. A participant asked whether the 2010 Census numbers can be used, but the County will not receive those numbers until at least April of this year. Karen said she will investigate whether those numbers will be able to be incorporated. Pet estimates are based on human population estimates, since each household is estimated to have one "unit" pet. Participants estimated that rural areas probably have more pets (such

as hunting dogs) and Karen asked that anyone who knows of hunt clubs, kennels, etc., please let her know so she can include those as well. An attendee asked what constituted the next topic, permitted facilities. Tara explained that these are large dischargers that are regulated by VADEQ and have special permits to operate. A participant asked whether wineries were included in the permitted discharges. Karen and Tara said that they weren't, but that probably wasn't a problem because bacteria is the pollutant of concern and wineries don't discharge bacteria in their manufacturing processes. Many of the wineries probably do have septic systems, but that would be included in the human population number estimates.

Before breaking into discussion groups around the large watershed maps that VT-BSE brought, Tara outlined the next steps. VT-BSE will take the information gathered at the meeting, as well as any other comments received by email or phone, and use it to make the model accurately reflect the Rockfish Watershed. Another LSC meeting will be held to review the results of the model before the next public meeting. Tara asked the group about the best times to meet. About half the participants preferred afternoon and half preferred evenings. The Rockfish Valley Community Center was a great place to meet, all agreed. Tara also announced that the Middle James Roundtable, a networking group of stakeholders in the Middle James River watershed, would be having an Annual Meeting/Conference about TMDLs at VCU in Richmond on March 15th. For more information, go to www.mjrt.org. Tara thanked everyone for coming!!

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