

**Barbours Creek, Craig Creek, Catawba Creek, Lapsley Run, Little Patterson Creek, Sinking Creek and  
James River Total Maximum Daily Load  
Technical Advisory Committee #1**

**December 12, 2017, 1:30 p.m. – 3:30 p.m.  
Eagle Rock Public Library, 55 Eagles Nest Drive, Eagle Rock, VA 24085**

**Technical Advisory Committee Participants:**

Lucy Baker, Paula Main, James Moneymaker – Virginia Department of Environmental Quality (DEQ); Phil Lochbrunner (VA Master Naturalist), Joe Jolley (Resident), Julie Yamaki (Resident), Denny McCarthy (VA Department of Forestry), Greg Stull (Farmer), Charles Vise (Landowner), Tim Miller (Mountain Castle SWCD), Karen Kline (VT BSE), Genevieve Goss (Valley Conservation Council), Adam Taylor (VT Catawba Sustainability Center), Rob Campbell (James River Association), David Flores (Resident)

Lucy Baker began the meeting reviewing the Total Maximum Daily Load (TMDL) process. A TMDL Study identifies all sources of pollution such as point sources, nonpoint sources, and wildlife. Lucy showed a map of the watersheds and location of impaired segments. The Stressor Analysis Process was discussed. The results of the Stressor Analysis revealed the most probable stressors affecting the Catawba Creek watershed. Sediment was determined to be the most probable stressor. Total nitrogen and total phosphorus are probable stressors. Pasture is the dominant land use in the Catawba Creek watershed riparian area (30-m surrounding the stream), while forest is the dominant land use within the whole watershed. Next steps include developing a TMDL equation for sediment on Catawba Creek. Other streams in this project do not have benthic impairments. Those bacteria impairments will be addressed differently.

Karen Kline with Virginia Tech BSE discussed the role of Virginia Tech during this process, which includes completing a source assessment, modeling, and allocation. Karen further discussed the land use data.

**Initial Estimates of Human and Pet Sources:**

- It is assumed that each household has one pet. The group stated that the number seems low. Keep in mind that we are more interested in the number of dogs versus other domestic pets.
- Failing septic systems and straight pipes: One person stated that the number of straight pipes seems low overall. It was also suggested to look at the numbers for Lapsley Run that they may perhaps be too high and that there are not many houses in that watershed.
- Livestock: (Runoff from direct deposition, manure storage, and manure application) Data comes from the National Agricultural Statistics Service. It was mentioned that Botetourt County completed a survey recently and to look at those results. Many people raise their own chickens that may not be reported.
- Wildlife: Data comes from VDGIF. Bear and coyote have become more prevalent. The number of beavers seems high. The number of deer should be higher. No reductions are considered for wildlife. Karen asked about waterfowl. The group suggested that there are considerable numbers of migratory birds. Possum numbers are probably similar to raccoon numbers and should be added. Otters should be considered in the Upper James River watershed near Glen Wilton. The number of wild turkey should increase. One person suggested the number of beaver in Lapsley Run should be zero. Vultures should also be added.

**General Questions:**

**Question:** Could climate conditions explain the low benthic macroinvertebrate numbers in 2003? Was that a drought year?

**Answer:** I'm unsure of the weather at the time of sampling but there are no notes from the biologists indicating unusual conditions during that sampling time. It could be caused by other environmental conditions or the watershed could have improved with more BMPs on the ground to cause a recovery in the macroinvertebrate community.

*Updated answer: Flows were above average during the both 2003 sampling times. This could affect the community observed at those times.*

**Question:** Is there data on the sewage treatment plants?

**Answer:** Yes, data from the sewage treatment plant is included. The plant is operating within its permit parameters. Data from DEQ's PREP database is also included.

**Question:** Are some species fecal matter more potent than other species?

**Answer:** Yes, the amount of fecal coliform in animal waste varies across species. Humans and water fowl typically have high fecal coliform counts.

**Question:** How do you differentiate between Big Patterson versus Little Patterson?

**Answer:** Impairment occurs before the confluence of the two branches. Big Patterson is not impaired.