

Crooked, Stephens and West Runs and Willow Brook Water Quality Improvement Plan

Residential Working Group Meeting: Lord Fairfax Community College

January 28, 2016

PARTICIPANTS

Joe Lehnen (DOF)
James Pinsky (LFSWCD)
Dan Murray
HB Simpson (TJSWCD)
Larry Atkinson

Terry Lay (FOSR)
Larry Stacy
Tom Sayre
Janice Atkinson

Katie Shoemaker (EEE Consulting)
Phil VanAlsburg
Tara Sieber (VADEQ)
Tim Stowe

MEETING SUMMARY

Tara Sieber, from the Virginia Department of Environmental Quality (VADEQ) provided an overview of the role of the residential working group in the planning process. She explained that the group is typically made up of local residential property owners, local Health Department staff, and representatives from other interested citizens groups in the region. The group moved on to discuss septic system maintenance needs and the degree of awareness in the area regarding what is involved in maintaining these systems. The group agreed that there is a considerable lack of awareness of septic system maintenance requirements. Participants thought that education on septic systems and alternative waste treatment systems could be targeted towards realtors and homebuilders in addition to homeowners in the watershed.

The group discussed alternative waste treatment systems. It was noted that independent verification of designs should be required and that architects should not be allowed to just sign off on system designs. One participant suggested that the VA Department of Health should work with local realtors to require the inclusion of the capacity of septic systems in real estate transactions. The Friends of the Shenandoah River has worked with homeowners on septic tank pumpout programs in the past, which provided assistance with the cost of pumpouts. It was noted that there are many challenges associated with working in karst/shale topography with respect to septic systems and alternative waste treatment systems. The percentage of alternative systems is higher than average in the watersheds because this topography makes it difficult to install a conventional drainfield. One participant asked whether peat moss systems could be considered alternative waste treatment systems. If the system is approved as designed by the Health Department, then homeowners can install it, this includes peat moss systems. Participants estimated that the cost of an alternative system can be as high as \$35,000 while conventional systems are usually around \$8000. It costs \$300 to inspect a septic system and pumpouts are typically around \$300.

The group moved on to discuss straight pipes and failing septic systems. Participants wanted to know where people are allowed to walk when walking the stream. DEQ staff explained that the "ordinary high water mark," which is where water usually flows in a streambed is generally considered property of the Commonwealth. However, there are areas where Kings Grants exist and landowners actually own the stream bottom. A lot depends on individual property owners. A few participants identified fear as an important barrier to participation in assistance or education programs. Any sort of outreach should

emphasize the voluntary nature of the program. A participant asked if a visible plume is created in a stream as a result of a straight pipe discharge. It was noted that there could be excess algal growth due to high nutrient levels around the pipe. Another participant suggested using aerial thermal imagery to determine where straight pipes are located since the discharge will probably be warmer than the stream water. Another barrier to participation in assistance programs will be the cost of hooking up to public sewer. In Frederick County, this is around \$25,000 plus the cost of labor and materials to connect to the sewer line. Homeowners associations and public service boards hold public meetings every so often, which could be a good opportunity for outreach.

The group discussed potential partner organizations for rain garden installations in the watersheds including Front Royal Tree Stewards and the Garden Club of Warren County. Master Naturalists/Gardeners would probably not be the best partner for this particular implementation piece, but they could help with some residential education.

DEQ staff asked participants about opportunities for pet waste stations in the watersheds. Lake Frederick already has pet waste stations set up in the surrounding area, and some Homeowners Associations include pet waste disposal in their covenants/agreements. Warren County will be opening a dog park in 2018 (Rockland Park). It was noted that peer pressure is a critical component in getting pet owners to pick up after their pets.

Participants discussed other outreach opportunities regarding septic systems and pet waste. A local newspaper education campaign was suggested. The campaign could make the connection between groundwater science, septic system maintenance and financial cost share. Coliscan monitoring was suggested as a good tool for making upstream downstream comparisons to convince landowners to exclude their livestock. Friends of the Shenandoah River is already doing some bacteria testing in West Virginia. They already have an excellent monitoring network that they are willing and able to expand. McKay Springs was identified as a particular location the needs some additional monitoring. Another participant suggested launching a drinking water campaign. "Taste of the Shenandoah" could work with participating businesses and local Chambers of Commerce to stress local resources, health and taking care of our children by caring for our water. Local schools could also be involved in monitoring and outreach. They could play an important role in recruiting local service organizations such as Boy Scouts and Girl Scouts. Envirothon could be another tool to reach out to the local community. It was noted that the Army Corps of Engineers has a station in Winchester and might be able to provide assistance with labor to install septic systems at a reduced price, the National Guard was suggested as another potential source of assistance with labor.

It was noted that there is a need for sanitary facilities at Lake Frederick for fishermen after peak fishing season. Currently facilities are not available year round.

The group reviewed overall residential priorities and ranked them with one being the highest priority:

1. Straight Pipes and Failing Septics
2. Homeowner Education
3. Connection to public sewer

The group discussed future meetings and suggested avoiding Tuesday nights since they are Board of Supervisors meetings. An earlier time of 5-6 p.m. works well for people, or after 6:30 so that commuters can return home. Sunflower Cottage was noted as a good meeting location. Tara thanked participants and the meeting was adjourned.