

**POTOMAC WATERSHED ROUNDTABLE**  
**Quarterly Meeting – July 7, 2017**  
**Virginia DEQ – Northern Regional Office, Woodbridge**

**MINUTES**

**Members and Alternates**

Hon. Penny Gross, Chair, Voting Member, Fairfax County  
Hon. Woody Hynson, Vice Chair, Voting Member, Westmoreland County  
Hon. Jeff Adams, Voting Alternate, Tri-County City SWCD  
Kirsten Conrad-Buhls, Advisory Member, Virginia Cooperative Extension  
Curtis Dalpra, Voting Member, ICPRB  
Michael DeMarco, Voting Member, City of Fairfax  
Hon. John Flannery, Voting Member, Loudoun SWCD  
Hon. Jim Gehlsen, Voting Alternate, Prince William SWCD  
Harry Glasgow, Voting Member, Environment  
Laura Grape, Voting Alternate, Northern Virginia SWCD  
Alan Gray, Voting Member, Agriculture and Forestry (Forestry)  
Hon. John Jenkins, Voting Member, King George County  
Daniel Moore, Advisory Member, Virginia DEQ  
Karen Pallansch, Voting Member, Water and Wastewater Utilities  
James Patteson, Voting Alternate, Fairfax County  
Hon. John Peterson, Voting Member, Northern Virginia SWCD  
Hon. Robert Pickett, Voting Member, Northern Neck SWCD  
Mike Rolband, Voting Member, Construction, Development, and Real Estate  
Rebecca Shoemaker, Advisory Member, Virginia DEQ  
Michael Trop, Voting Alternate, John Marshall SWCD  
Hon. Kristen Umstattd, Voting Member, Loudoun County  
Hon. Elizabeth Ward, Voting Alternate, Prince William SWCD

**Interested Parties**

Kate Bennett, Fairfax County  
Craig Carinici, Fairfax County  
Tony Cuellar, Northern Virginia Conservation Trust  
Maria Harwood, Northern Virginia SWCD  
Jeannie Heflin, Prince William SWCD  
Will Isenberg, Virginia DEQ  
Dr. R. Chris Jones, GMU – Potomac Environmental Research and Education Center  
Jolene Mafnas, Virginia Cooperative Extension  
Daniel Michaelson, Apex  
Mike Miller, Prince William SWCD  
Mishelle Noble-Blair, Fairfax Water  
Marta Perry, Tri-County City SWCD  
Jerry Peters, Northern Virginia SWCD  
Hon. John Price, Prince William SWCD  
Daniel Saltzberg, Northern Virginia Conservation Trust  
Heather Shackley, Northern Virginia SWCD

Veronica Tangiri, Prince William SWCD  
Darold Burdick, Fairfax County

**Call to Order.** Ms. Gross called the meeting to order at 10:05 AM and thanked the Prince William Soil and Water Conservation District for hosting the meeting.

**Moment of Silence.** She asked to take a moment of silence in remembrance of Tom Grizzard, former Director of the Occoquan Watershed Monitoring Laboratory, who passed away suddenly on June 24, 2017.

**Pledge of Allegiance and Introductions.**

**Minutes.** A **motion** (Pickett-Pallansch, DeMarco abstention) passed unanimously to approve the minutes from the April 7, 2017 meeting in Warrenton, VA.

**Potomac Council Report.** Mr. Peterson reported that the Potomac Council met prior to the Roundtable meeting and shared that John Marshall, Loudoun, Northern Neck, and Tri-County City Soil and Water Conservation Districts (SWCDs) will serve as hosts for the meetings in Calendar Year 2018. He noted that Ms. Grape will follow up with District Managers to formalize dates and specific locations.

In addition, he noted that the next two upcoming meetings will focus on the topics of FEMA's designation of floodplains versus floodways and Groundwater sustainability. He acknowledged that both are timely and important topics for the Roundtable to consider.

**Updates from the Chair.** Ms. Gross noted that the Local Government Advisory Council attended the Executive Committee meeting in Annapolis on June 7 and 8. The meeting included a gavel exchange from Governor McAuliffe to Governor Hogan and that the tone of the meeting was very positive. The "State of the Chesapeake Bay Program" report documents many positive results that are ahead of schedule. The Governors unanimously signed a resolution insisting the maintenance of the \$73 million in the Federal budget for EPA's Chesapeake Bay Program demonstrating the continuance of a unified approach toward maintaining and improving the quality of the Chesapeake Bay. In addition, the Metropolitan Washington Council of Governments signed a similar letter requesting to maintain funding for the Bay Program.

Ms. Gross acknowledged that the efforts must focus on the partnerships between localities, states, and federal agencies, which were originally established in 1993. All of the work done locally in most sectors and are supported financially and technically by state and federal agencies are making a difference. Ms. Pallansch shared that the experience of partnering with state agencies to establish the Water Quality Improvement Fund for system upgrades helped the wastewater sector to meet permit limits and 2025 Chesapeake Bay goals for Phosphorous. She noted that removal of Nitrogen is more difficult. Ms. Gross noted that this does give the Commonwealth space to focus on the agriculture and stormwater sectors. She also noted the effects of the improvements on associated consumer rates and how deliberate planning, gradual increases, and education have minimized concern from the consumer. Ms. Pallansch highlighted that all rates continue to be lower than in surrounding states and revenue has been focused on forward planning, maintaining the system, and reinvestment into the system with new technologies. She noted that those utilities that used revenue for other reasons continue to be plagued with challenges to their systems.

Ms. Gross shared that the inaugural “Back to the Bay” event took place on June 10<sup>th</sup> at Mason Neck State Park. She noted that there was good representation from state agencies and dignitaries, but very low turnout from the general public. It may have been due to competing events that weekend and a need for wider promotion.

**Member Time & Announcements.** Ms. Gross invited members to provide updates. They included:

- Ms. Conrad-Buhls shared that the Virginia Urban Agriculture Summit will take place on October 5-6, 2017 in Arlington.

**Accotink Creek Sediment and Chloride Total Maximum Daily Loads (TMDL), an update.** Mr. Isenberg, Environmental Specialist with Virginia Department of Environmental Quality’s Office of Watershed Programs and Office of Ecology provided an update on the finalization of the TMDL reports for the sediment and chloride TMDLs for Accotink Creek. He noted that the public comment period for both reports is open through July 21, 2017 and that the draft reports are available online at: <http://bit.do/VADEQdraftTMDL>.

Mr. Isenberg provided an overview of the location of the watershed and reviewed the process of developing a Total Maximum Daily Load (the acceptable amounts of a pollutant that the stream can handle without impacts to the system). He shared that the TMDLs focus on the Waste Load Allocation (WLA), which is implemented through permits, and the Load Allocation (LA) for which an implementation plan is developed to address. Consistently low Virginia Stream Condition Index (VSCI) scores that use benthic macroinvertebrates as indicators of water quality led to an effort to determine the most probable pollutant stressors. Ultimately, sediment and chloride were isolated.

Mr. Isenberg noted that addressing the sediment pollution would also assist with addressing non-pollutant stressors. The report identifies that the source of 82-93% of the sediment is streambank erosion. When compared with non-impaired watershed, the acceptable load is approximately five times the pre-development condition. This helped to determine the percent reductions on sources throughout the watershed.

A sediment trapping efficiency of 40% was used for Lake Accotink and Mr. Carinci noted that Fairfax County Department of Public Works and Environmental Services and the Fairfax County Park Authority are in discussion about the future of the Lake, including dredging. Mr. Isenberg noted that the TMDL does assume that the county will keep dredging the lake.

Mr. Isenberg noted that much of the area in the TMDL watershed is regulated and there is a lot of overlap with Municipal Separate Storm Sewer Systems (MS4). Since this is the replacement to the contest flow TMDL, it does receive national attention.

Data collected for chloride showed significant spikes in concentrations during the winter months, due to the application of road salt. However, chloride continued to register within the system throughout the year. The goal of the chloride TMDL is to improve water quality while maintaining public safety. Mr. Isenberg noted that the TMDL report does not include information on how to address the requested 70% reduction in chloride because of the need to maintain public safety. Mr. Dalpra shared that the US Geological Survey conducted studies on the impacts of chlorides on the system overtime. In the case of tributaries draining from BWI Airport, the use of deicers during the winter months elevated salt levels into August, causing higher salinity in the system, and ultimately changing the ecology of the freshwater streams.

Mr. Isenberg noted that the probabilistic monitoring results found that anytime the concentration of chlorides is roughly 40 parts per million, the stream will demonstrate a VSCI score of <60. It was noted that higher costs of road salt alternatives make them unappealing for most applicators, such as VDOT. In addressing Mr. Isenberg's concern regarding the lack of records for how much salt is actually applied, Mr. Pickett shared that if it was purchased one can assume it has been used. Mr. Dalpra noted that chlorides have been a concern for the Potomac Drinking Water Source Protection Partnership. He noted the use of beet juice and pre-brining techniques that are applied in Washington, DC and elsewhere.

Ms. Gross noted that the demand for uninterrupted travel on roadways pushes local governments and the Virginia Department of Transportation to apply salt during the winter months. She noted that local government officials are often bombarded with requests during this time and managing expectations of constituents can be a challenge.

Ms. Noble-Blair noted that there are other cities facing similar issues, such as the Twin Cities. She noted that sodium and chloride levels continue to rise in drinking water sources including the Occoquan and Potomac Rivers. She noted that a regional salt management strategy that addresses both storage and application could help.

Mr. Isenberg noted that efforts outside of regulated areas are eligible for 319 funds. Ms. Gross thanked Mr. Isenberg for his informative presentation and asked that he come back in six months with an update.

**Current Projects with the Potomac Science Center.** Dr. R. Chris Jones, Director of the Potomac Environmental Research and Education Center of George Mason University shared that the construction of the Potomac Science Center along the banks of Belmont Bay in Woodbridge is nearing completion. He hoped that the Center would be considered the "Woods Hole" for research and study of the Potomac River. He recognized that the concept for the facility was that of his and Associate Professor Emeritus of Environmental Science and Policy, Dr. Don Kelso. Senator Colgan supported the Center and worked to integrate funding for its construction into the state budget.

The facility will overlook Mason Neck and Belmont Bay. It will include K-12 classrooms, a multi-purpose room, a wing with classrooms and teaching and research laboratories, and administrative offices. The property will allow access and connection to the Potomac Heritage National Scenic Trail and the Captain John Smith Chesapeake National Historic Trail.

Dr. Jones introduced the eight-member faculty and their research foci. He noted that there are several dozen graduate students with contract research projects, several hundreds of environmental science majors, and thousands of biology majors in the College. He shared that moving will not impact any lab-based projects that are currently underway nor will it delay the field-based projects or programs.

The Gunston Cove program began in 1984 with funding from Fairfax County. The county was interested in documenting the efficacy of the improvements made to the Noman Cole Pollution Control Plant, in Lorton, that reduced the amount of phosphorous in the plant's effluent and enters Pohick Creek. The high levels of phosphorous caused cyanobacteria blooms and resulted in unsightly fish kills. The continual monitoring encouraged an adaptive management approach to the restoration efforts and in 2005, submerged aquatic plants regained a foothold. The monitoring showed a shift in dominant phytoplanton type from cyanobacteria to diatoms.

The study on Hunting Creek was modeled after the Gunston Cove project and began in 2003. The study was initiated after it was recognized that the chlorination disinfection process used at Alexandria ReNew sterilized the creek, preventing its use for spawning by American Shad and River Herring. Alexandria ReNew now use an ultraviolet disinfection process. In addition to fish surveys, data on E. coli and micropollutants (common pharmaceutical by-products, such as testosterone and fluoxetine) are also conducted. Dr. Jones noted that they have not gone through the effort to determine if there are any transsexual fish in the waterway.

The Center also provides outreach and education, including Meaningful Watershed Education Experiences for 6<sup>th</sup> graders in Prince William and Fairfax Counties. Dr. Jones shared that the Center's faculty are also working to establish an Eco-Park at the Prince William County Landfill.

Mr. Moore commended George Mason University for going through the Water Quality Impact Review process when developing the Center. Because of its proximity to Belmont Bay there were initial concerns regarding the impacts to the Resource Protection Area. However, Mr. Moore explained that GMU's consultants worked well with the Virginia Department of Environmental Quality to find consensus and limit impacts.

Ms. Gross thanked Dr. Jones for his informative presentation and invited him to provide more detail and insights on the Hunting Creek studies at a future meeting.

**Roundtable Discussion.** Ms. Gross provided the opportunity for the Roundtable membership to discuss issues of importance to them. They included the following:

- The increase in stormwater regulations and inspection requirements, but lack of regulatory enforcement for the bad actors. Are policies overly precise and remove the ability to take a common sense approach?
- FEMA is classifying the planting of trees and establishment of agricultural BMPs in the same way as other constructive development in Loudoun County. Is there a way to change the system to plan for the future, instead of preserving existing conditions? Does FEMA have authority over Loudoun County's floodplain model?
- Cyber-security is a concern for many water utilities, particularly as technology pushes them toward the use of electricity and computer controls. It makes them vulnerable to hacking and loss of control.
- Many wastewater facilities are at the limits of technology. The ultimate level of pollutant removal is a reverse osmosis treatment system, which is very costly, produces an brine effluent that currently cannot be treated, and requires additional space that most facilities do not have.
- How do we manage our drinking water supplies to be able to accommodate the projected growth through 2050? Reinjection wells are being considered as is building resilience into the existing system.

**Adjournment.** Ms. Gross thanked everyone for their attendance and engagement in the meeting dialogue. She expressed appreciation to the Prince William SWCD for their hospitality. She noted that the next meeting will take place on October 6, 2017 and will be hosted by the Loudoun Soil and Water Conservation District in the Leesburg area. The meeting adjourned at 1:50 PM.