



Via U.S. Mail and E-mail: voigt.gregory@epa.gov

August 20, 2010

Mr. Gregory Voigt (3WP30)
Office of Standards, Assessment and TMDLs
U.S. EPA, Region III
1650 Arch Street
Philadelphia, PA 19103

RE: TMDL for Accotink Creek Watershed

Dear Mr. Voigt:

The purpose of this letter is to provide comments on the Accotink Creek Watershed TMDL in Virginia. We appreciate the opportunity to submit the following comments:

1. We believe that the current 45-day public comment period (despite its extension from 30 days) does not provide sufficient time for stakeholders to review the TMDL document, analyze its effect, and provide comments to the EPA on this TMDL. At the public meeting on Monday, July 26, 2010 many local government officials expressed concerns that the current comment period did not allow time for their boards to meet, review the TMDL document, and draft comments to the EPA. We believe that extending the comment period (beyond the current 45-days) for this TMDL will ultimately create a more holistic TMDL document. EPA officials confirmed that the Accotink Creek TMDL is the first flow-based TMDL in the Chesapeake Bay Watershed; therefore, it will set a precedent for future TMDLs. As such, it is important to provide appropriate time for stakeholders to comment on this document.
2. The EPA is working to establish the Chesapeake Bay Watershed TMDL by December 2010, and the States and the District of Columbia are currently working to develop their Watershed Implementation Plans (WIPs). We believe that the Accotink Creek TMDL should be drafted with the WIP development in mind as many questions remain unanswered regarding stakeholder compliance with both the WIP and the Accotink Creek TMDL.
3. There were significant technical errors in the presentation at the public meeting on July 26, 2010 relative to the TMDL document itself. These include:



- a. The area of land controlled by the Virginia Department of Transportation (VDOT) within the Watershed was listed as 433 acres (Table 6-9: Aggregated MS4 Wasteload Allocation). Many local government officials at the meeting indicated that this number clearly appears low and needs to be verified and revised as necessary. This number also appears to conflict with the 4,566 acres of “Transportation” Land Use in Fairfax County within the Accotink Creek Watershed (Table 2-4: Land Use Categories within the Accotink Creek Watershed).
- b. The construction permits loading requirements in the TMDL report state that there must be a 55.4% reduction of volume (Table 6-10: Summary of Existing and Allocated Stormwater Flows); however, EPA officials at the public meeting said emphatically that there was no such reduction requirement for construction permits and agreed that it is impractical to require reductions during construction because of the inability to infiltrate (this would “clog” the soils during construction) and the impossibility to re-use water (as the facility does not exist).
- c. The hydrologic soil group analysis results presented in the TMDL report (Table 2-2: Hydrologic Soil Groups within the Accotink Creek Watershed) varies drastically from NRCS Soil Data Mart data (see table below). The Accotink Creek TMDL shows that Type “B” soils dominate the watershed, while the NRCS data shows that Type “D” soils comprise the majority of the watershed. This discrepancy is concerning, as the difference in permeability for these soil groups will drastically impact the ability to infiltrate in the Watershed. In addition, the analysis of major soil associations within the Watershed (Table 2-1: Major Soil Associations within the Accotink Creek Watershed) does not account for the urbanization impacts on the soils within this Watershed.

Accotink Creek Watershed by Soil Type				
	Accotink Creek TMDL (Table 2-2: Hydrologic Soil Groups within the Accotink Creek Watershed)		NRCS Soil Data Mart*	
Soil Type	Acres	% of Watershed	Acres	% of Watershed
A	Not Provided	Not Provided	10	0.03
B	26,347	86	5,223	16.85
C	4,300	14	3,625	11.69
C/D	3	<1	32	0.10
D	3	<1	14,226	45.88
Blank	0	0	7,889	25.44
Sum	30,653	100	31,005	100

*Data downloaded from <http://soildatamart.nrcs.usda.gov/> on 8/20/10.

- The term “predevelopment” is used in the Accotink Creek TMDL document, however it is not defined. In the Chesapeake Bay Executive Order 13508 (Chesapeake Bay Protection and Restoration) “Section 502 Draft Guidance for Federal Land Management in the Chesapeake Bay Watershed,” dated March 15, the term predevelopment hydrology was clarified¹ to mean pre-settlement condition; however the Accotink Creek TMDL document does not clearly define its meaning, but EPA officials at the July 26 meeting indicated that predevelopment means pre-construction. In local ordinances that means conditions that exist prior to the proposed activity – which is very different than what we believe EPA is implying. Clarification within the TMDL document is needed.
- It is unclear if this TMDL seeks to reduce flow or volume within Accotink Creek. Both the TMDL document and EPA officials at the public meeting on July 26 used the term “flow” and “volume” interchangeably when referring to the TMDL (although they did state its purpose is to

¹ Per email correspondence on April 6, 2010 from Robert Goo (EPA) to Jennifer Brophy-Price (WSSI): “Predevelopment hydrology should be considered the hydrology of the site using the historic land cover typology of the site as a reference condition, e.g., mature deciduous hardwood forest or meadow. If more specificity is desired, soils, geology, slope, etc. can be factored in. Pre-development hydrology is **not** the existing conditions on the site directly before the development or redevelopment activity takes place.”



regulate volume and then provided an example using “cfs” which is a flow rate, not a volume). The TMDL report itself is full of conflict on this issue. The implications of reducing one versus another are drastically different for the stakeholders who will be charged with implementing this TMDL. These implications should be carefully considered and understood, and clarification throughout the TMDL document is needed.

6. The TMDL seeks to reduce the flow (or volume; see comment #5, above) but fails to address the existing condition of the severely incised streams. Even by reducing flow (or volume), stream flows will still not have access to the floodplain, and will continue to erode the incised streams. An analysis of the in-stream velocities should be performed to determine the TMDL’s impact on the stream velocities, and this analysis should be compared with the allowable shear stress for the existing in-situ stream bed and bank material. In addition, stream restoration activities are criticized in the TMDL document: “...stream restoration alone may have little effect on improving the conditions of in-stream water quality and biological habitat...” (pgs. 3-35 and 3-36); however, after reducing flow (or volume), the streams will remain in an incised state and will continue to erode overtime, until the streams reach a new equilibrium and establish a new floodplain at a lower elevation. Until this occurs, Accotink Creek will continue to have problems with sediment for some time, unless the stream is restored. This is specifically contrary to EPA staff’s public statement on July 26, 2010 encouraging stream restoration and stating that it is a valid technique for addressing this TMDL. The document must be corrected.
7. If flow restrictions were implemented through stormwater regulations rather than through this proposed TMDL (and future TMDLs in other watersheds), then results would be achieved at a larger geographic scale, rather than the piecemeal network that will be developed through individual TMDLs over time. With stormwater regulations in place to regulate flow, TMDLs could be implemented for the *pollutants* of concern rather than *pollution*.
8. The TMDL document has allocated 5% of the total Watershed area toward construction stormwater permits. Section 6.3.1 states “As current construction is completed, new construction can be started as long as the amount of acreage under construction remains within 5% of the total acreage.” This statement effectively regulates development within the watershed. How was the “conservative estimate” of 5% developed? What occurs if the 5% is reached in any one year, and how will this be monitored and regulated?
9. Section 6.3.1 of the TMDL document states “...all construction activities, upon completion (or post-construction), will have no net increase in flow (as compared to pre-development land-use conditions at the one-year storm event), and must also meet the TMDL reductions required of the pre-development land use.” See comment #4 above regarding the term “predevelopment.” In addition, the implications and the feasibility of implementing “no net increase in flow” should be

carefully considered. Site specific conditions, such as soil type and previous development activity that disturbed soils precluding their use for infiltration, will significantly impact infiltration. For sites with low-permeability soils, infiltration is simply not physically possible. Practicable alternatives are needed when significant volumes of water cannot be reused, infiltrated, or evapotranspired. Has this been considered? We highly recommend the Energy Balance approach to regulate allowable discharge rates when it is not practicable to control the discharge volume to pre-development levels [as proposed in the suspended state regulations and used for adequate outfall options in the Fairfax County (PFM)].

Again, we appreciate the opportunity to provide comments on the Accotink Creek TMDL. We believe that stakeholder involvement in this TMDL is important and will positively contribute to the TMDL document.

Sincerely,

WETLAND STUDIES AND SOLUTIONS, INC.



Michael S. Rolband, P.E., P.W.S., P.W.D.

President

cc: Andrew Dinsmore – EPA – Via E-mail: dinsmore.andrew@epa.gov
David Paylor – Virginia DEQ – Via E-mail: david.paylor@deq.virginia.gov
Thomas Faha – Virginia DEQ – Via E-mail: Thomas.Faha@deq.virginia.gov
Bryant Thomas – Virginia DEQ – Via E-mail: bhthomas@deq.virginia.gov
David Johnson – Virginia DCR – Via E-mail: David.Johnson@dcr.virginia.gov
Kelly Vanover – Virginia DCR – Via E-mail: kelly.vanover@dcr.virginia.gov
Robert Slusser – Virginia DCR – Via E-mail: Bob.Slusser@dcr.virginia.gov
Randy Bartlett – Fairfax County – Via E-mail: randy.bartlett@fairfaxcounty.gov
James Patteson – Fairfax County – Via E-mail: James.Patteson@fairfaxcounty.gov
Bethany Bezak – WSSI – Via E-mail: bbezak@wetlandstudies.com
Jennifer Brophy-Price – WSSI – Via E-mail: jbrophy-price@wetlandstudies.com

L:\Correspondence\2010\2010-08-20_Accotink Creek TMDL Comments.doc