County of Gloucester
County Administrator
6467 Main Street
P. O. Box 329
Gloucester, Virginia 23061 **(804) 693-4042**

January 30, 2012

Mr. David A Johnson
Director, Department of Conservation and Recreation
203 Governor Street
Richmond, Virginia 23219-2010

Re: Watershed Implementation Plan, Phase II
Data Submittal

Dear Mr. Johnson:

This submission was prepared by Gloucester County in response to the June 2011 request by the Virginia Department of Conservation and Recreation for supplemental information to be incorporated into the forthcoming Virginia Phase II Watershed Implementation Plan (WIP II). The Goal of this submission is to provide the state with proof of local engagement and assure the EPA that Gloucester is seriously considering the TMDL requirements. This submission is intended to document the efforts taken by Gloucester County to participate in the development of Virginia's WIP II and to describe the future efforts Gloucester intends to take to assist in achieving the desired water quality in the Chesapeake Bay.

Unfortunately the evolving nature of the information requested and the imposed time limitations did not allow sufficient time for our governing Board to properly review and approve the submitted data. As a result, this information should not be taken as a legal requirement for future action by the Gloucester County Board of Supervisors or the County Staff.

Gloucester County is a member of two Planning Districts: the Hampton Roads Planning District and the Middle Peninsula Planning District. Our TMDL staff has been active with the other participating localities and with the staff of both of these Planning District Commissions (PDCs). These activities have included active membership in both PDC TMDL Steering Committees, participation in DCR lead training sessions, and attendance at numerous training sessions related to the TMDL program. Our staff participated in the activities of the MPPDC regarding the TMDL and is presenting a chronology of our participation with that group in the Appendix. Similarly, we participated in the TMDL activities of the HRPDC, which has under separate cover presented a chronology in their report entitled "Hampton Roads Regional Planning Framework, Scenario and Strategies". We would like to acknowledge and express our appreciation of the assistance provided by DCR, the PDCs, and Soil and Water Conservation District staffs, and their consultants.

We were an active member in the HRPDC TMDL Septic Subcommittee, which met and discussed the methods available to increase the number of residential connections to the public

sewer systems and subsequently reduce the number of septic systems in our localities. After considerable discussion, this committee provided three recommendations to that end. Specifically, the committee recommended that the following be included in the Legislative agenda:

1. Seek legislative changes necessary to establish tax credits for upgrades/replacement of existing conventional systems with nitrogen reducing systems or connections to existing public sewers.
2. Look into steps for gaining General Assembly approval to grant all counties the authority to require hook-ups to existing sewer line when appropriate.
3. Work with state agencies to establish a cost share program, similar to what is done with the Agricultural BMP Cost Share Program, to assist with the cost of required upgrade or replacements and incentivize non-failing septic system owners to upgrade to denitrifying systems.

Our staff attempted to develop the requested information regarding Land Use and BMPs currently in place, and to develop scenarios of future activity utilizing the VAST program. In conjunction with staff from our partners at the Middle Peninsula Planning District, we attempted to input data using the VAST program. Unfortunately, we were unable to enter data into that program. Additionally, we attempted to enter reliable data into VAST individually and were unsuccessful as well. We concluded that the VAST program was not a satisfactory vehicle for providing requested data of this importance.

Given the importance of the requested data, we have elected to provide the requested information using a number of worksheets developed by the Center for Watershed Protection, as described below. Please note that there are no concentrated feed lots in Gloucester County at this time, and that Gloucester County does not currently have an MS4 storm water permit program.

During our information gathering and planning activities, we incorporated a number of assumptions regarding the TMDL process.

- Virginia and EPA will manage and fund pollutant and sediment reductions on state and federal owned and managed property.
- Virginia will implement nutrient reduction for point-source discharges through the VPDES permitting process and permit conditions, and such permits (including renewals) will be consistent with the Phase I WIP.
- The EPA, through the authority of the Clean Air Act, will take positive steps to reduce nutrient contributed by air deposition and such programs will be consistent with the Phase I WIP.
- As agricultural nutrient reductions cannot be enforced through any existing permitting program, Virginia, through the Soil and Water Conservation Districts (SWCD), will encourage reductions through outreach activities and cost sharing programs.
- Agricultural nutrient reductions may be influenced by the purchase of credits via an expansion of Virginia's nutrient credit exchange program.
- Virginia, through the VDH, will enforce existing requirements for upgrades and repairs to failing septic systems.

Based on the activities described above, Gloucester County believes that the information necessary for proper incorporation of the requested information into the Virginia WIP II cannot be accurately presented through the VAST program. Therefore, we have provided the requested information (to the extent available) using the worksheets developed and provided by the Center

for Watershed Protection. While we have utilized some of the information presented in VAST, we have found that the program is inadequate for submission of that data.

The attached worksheets present Gloucester County's updated land use information. Please note that Gloucester County does not have an MS4 storm water program at this time, and does not control any point source discharge outfalls. Collected sewage is transported (piped) and treated by Hampton Roads Sanitary District at the York River Plant.

The information contained in the worksheets addressing the various Source Sectors was drawn from a variety of sources, including data from the VA Department of Forestry, the Department of Mines, Minerals and Energy, the Soil and Water Conservation District, and the DCR VAST program.

We have identified several areas of where the information we are supplying is significantly different from that contained in the WIP I document and supplied by DCR. These include:

- The VAST program reports total acreages for MS4, both regulated and unregulated, which are significantly greater than those contained in the EPA "pivot tables".
- The VAST and EPA values for acreages currently under No-Till and Conservation practices in the Agricultural sector are grossly under reported.
- The number of Septic systems in both VAST and the EPA "pivot table" are significantly under reported.

There are a number of BMPs which are currently in use within Gloucester County which do not appear in the list of recognized BMPs. The absence of these BMPs and their exclusion from the TMDL program may result in an incomplete TMDL accounting. Among the BMPs which are not recognized by the VAST program are:

- No Discharge Zones for marine traffic – The elimination of sewage discharges from marine vessels may significantly reduce nitrogen loadings in portions of the Chesapeake Bay and its tributaries.
- The effects of terminal reservoirs in reducing discharges of sediments – Terminal reservoirs, which are utilized as a source for potable drinking water, capture runoff from significant acreage. Their contribution to reduction of pollutant loadings are not considered in the VAST model.
- Oyster reef restoration and aquaculture – The contributions of oyster populations, either on natural or artificial reef or within aquaculture cells, is not recognized by the VAST model.
- Shoreline stabilization and erosion control – The contribution to sediment reduction from required shoreline stabilization and erosion control measures is currently not recognized by the VAST program.
- Temporary bridges during logging operations – It is common practice for the loggers in pour area to own a set of portable timber bridges, which they use when making temporary stream crossings. This reduces sediment releases.
- Lumber Mats – Loggers in our area utilize wood mats, which are like pallets, to create artificial roadways rather than gravel. Additionally, the loggers place gravel roadways near the entrances to paved roads to avoid tracking mud and debris into the public roadways. This practice reduces sediment discharges at stream crossings.

Although we were unable to successfully utilize the VAST program, Gloucester County has attempted to project the types and number of BMPs which will be operable in the County in the year 2025. There are numerous limitations to these projections, which are discussed below. A significant item is our lack of information regarding the role VDOT will play in addressing storm water issues related to impervious surfaces under their control. Additionally the pace of development, and the associated conversion of land to residential development, is unknown and will undoubtedly play a significant role in the future release of pollutants into the Chesapeake Bay tributaries.

There are significant challenges to the County's moving forward towards the 2025 scenario. At the present time, Gloucester County lacks the legal authority to implement and/or enforce many of the programs intended to enhance the water quality of the Bay tributaries or to require installation and operation of BMPs at existing properties. Additionally, the County lacks the financial resources to support the projected actions.

Gloucester County has attempted to forecast the number and types of BMPs which will exist in the County in the year 2025. We realize that these are estimates only and that Gloucester County lacks the authority to require installation of BMPs on existing land use. Furthermore, given the current practices of the agricultural sector in the County, it is unrealistic to assume that any significant reduction in pollutant loads will be achieved in that sector.

We recognize that there are numerous impediments to the successful implementation and monitoring of the projected scenario. Consequently this program cannot be implemented and conducted without financial and legislative support for the Commonwealth of Virginia. We have identified the following actions that are necessary to support the local and statewide TMDL programs:

- Incorporation of local data into the mathematical models
- Implementation of water quality monitoring in coastal waters
- Evaluation of the impacts of extreme weather events
- Designation of wetlands as a land use category
- Expansion of the Nutrient Credit exchange program
- Expansion of the Chesapeake Bay Act to the entire watershed
- Expansion of the septic pump-out requirements to the entire watershed
- Partnership with non-government agencies to promote private property BMP retrofits
- Provision of funding for the agriculture sector nutrient reductions
- Provision of funding for wastewater/septic sector nutrient reductions
- Provision of funding for storm water sector nutrient reductions
- Provision of additional funding and staff to address the continuing Chesapeake Bay water Quality initiative.

Gloucester County would like to reaffirm our commitment to continue our long standing practice of implementing existing laws and regulations enacted by the Legislature intended to improve water quality throughout the Commonwealth. This commitment includes enforcing compliance with the Chesapeake Bay Act, in partnership with the Soil & Water Conservation District. Additionally, we intend to adopt the storm water management regulations, when they are finally promulgated, in an effort to further reduce the pollutant load to the Bay. To date, Gloucester County has adopted a primary sand dune ordinance to control coastal erosion and was one of the first Counties to enact regulations addressing operation and testing of Alternative On-site

Sewage Systems (AOSSs). These and other local programs demonstrate our continuing commitment to improving the water quality in the Chesapeake Bay and its tributaries.

We look forward to working with the DCR and the EPA in this important effort.

Respectfully yours,

Brenda G. Garton
County Administrator
Gloucester County

Attachments

cc: Gloucester County Board of Supervisors
Gloucester County TMDL Committee
May Louise McD. Sligh
TMDL/Watershed Field Coordinator
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Tappahannock Regional Office
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Martin M. Schlesinger, P.E.
Lewis L. Lawrence, Acting Executive Director, MPPDC
Dwight Farmer, Executive Director, HRPDC
File: TMDL
Chronological Correspondence

1/24/2011

Middle Peninsula Planning District Commission
Report on Progress of Middle Peninsula Response for the
Virginia Phase II Watershed Implementation Plan

Background

The U.S. Environmental Protection Agency (EPA) completed a Total Maximum Daily Load (TMDL) for the Chesapeake Bay watershed on December 29, 2010. The TMDL identified the nitrogen, phosphorus, and sediment reductions that each Bay State needs to achieve in order for the Chesapeake Bay to meet water quality standards. The TMDL included Phase I WIPs (Watershed Implementation Plans)developed by States within the Bay watershed. The Commonwealth of Virginia (Virginia) Phase I WIP outlined the actions expected of the wastewater, urban/stormwater, agriculture , and on-site sewage sectors in order to meet statewide nutrient and sediment reduction goals.

The next step in the TMDL process is for states to develop Phase II WIPs that describe strategies to implement the Phase I WIP. EPA expected Phase II WIPs to more closely engage local governments, watershed organizations, conservation districts, citizens and other key stakeholders in reducing water pollution.

The Phase II WIP is part of the accountability framework for the Chesapeake Bay TMDL, wherein EPA will track and assess Bay restoration progress and, as necessary, implement specific federal actions if jurisdictions do not meet their commitments. The deadline for submittal of Virginia's Phase II WIP to EPA is March 2012. Virginia asked localities to develop nutrient management strategies to address the level of treatment described in the Phase I WIP and submit local strategies to Virginia by February 1, 2012 for inclusion in the Phase II WIP.

Virginia requested that Planning District Commissions throughout the Chesapeake Bay watershed coordinate the collection of input from localities for Virginia's Phase II WIP. The Middle Peninsula Planning District Commission (MPPDC), one of 21 Planning District Commissions in the Commonwealth of Virginia, has been designated as the lead PDC and is coordinating the work of 12 PDC's representing 85 local governments within the Chesapeake Bay Watershed.

MPPDC is a 25-member Commission comprised of 2 elected officials and one citizen member from each of the six counties and one elected member from each of the three towns which make up the Middle Peninsula. Three county administrators and one town manager serve on the Commission on a rotating basis. The Commission has an Executive Committee, made up of the current PDC officers and the past two PDC Chairs. The Executive Committee provides policy oversight to the MPPDC's activities as needed.

Middle Peninsula Progress

The following is a list of Commission meetings, Local Governmental Administrator and Middle Peninsula Locality Response TMDL Team meetings at which issues of the Chesapeake Bay TMDL Phase II WIP process were discussed and action was taken and/or guidance given in regard to the process. This work has assisted with preparing member local governments with meeting the requirements of the February 1, 2012 deadline.

April 8, 2011

- Convened the monthly meeting of the Middle Peninsula Local Government Administrators to discuss the status and direction of the Virginia Phase II Watershed Implementation Plan.

April 27, 2011

- MPPDC Monthly Commission Meeting: Anthony Moore, Assistant Secretary for Chesapeake Bay Restoration, presented a review of the process for preparing the Virginia Phase II Watershed Implementation Plan to the Commission.

June 22, 2011

- Convened a regionwide water quality policy forum at the Virginia Institute of Marine Science to discuss various local, regional and state water quality issues facing Middle Peninsula local governments.

July 27, 2011

- MPPDC Monthly Commission Meeting. Continued to discuss the challenges faced by Middle Peninsula Local Governments related to the process for preparing the Virginia Phase II Watershed Implementation Plan.

August 12, 2011

- Convened the monthly meeting of the Middle Peninsula Local Government Administrators to discuss the status and direction of the Virginia Phase II Watershed Implementation Plan. Discussed the DCR request for local assistance.

September 7,2011

- MPPDC staff begins to coordinate with and for 12 PDC's representing 85 local governments to assist with locality Phase 11 WIP coordination.

September 28, 2011

- MPPDC Monthly Commission Meeting: Commission discussed Total Maximum Daily Loading, Watershed Implementation Plans, and local involvement. Discussed the formation of a Middle Peninsula Local TMDL WIP Response Committee.

October 26, 2011

- MPPDC Monthly Commission Meeting: Commission discussed Total Maximum Daily Loading, Watershed Implementation Plans, and local involvement.

October 26, 2011

- MPPDC Chair- Honorable Louise Theberge sends letter to the Secretary of Natural Resources requesting the State communicate its expectations to local governments regarding their role in Phase II WIP process and that the state become actively involved in the regional process being led by MPPDC and other PDC's throughout the Bay Watershed.

November 18, 2011

- Convened the monthly meeting of the Middle Peninsula Local Government Administrators to discuss the status and direction of the Virginia Phase II Watershed Implementation Plan. Discussed the DCR request for local assistance and the first meeting of the Middle Peninsula Local TMDL WIP Response Committee

November 30, 2011

- Convened the first meeting of the Middle Peninsula Local TMDL WIP Response Committee to discuss the use of VAST, local BMP data and strategy development. 23 local staff and resource experts attended.

December 9, 2011

- Convened the monthly meeting of the Middle Peninsula Local Government Administrators to discuss the status and direction of the Virginia Phase II Watershed Implementation Plan. Discussed the DCR request for local assistance and provided an update on the progress of the Middle Peninsula Local TMDL WIP Response Committee's work.

December 14th 2011

- Convened the second meeting of the Middle Peninsula Local TMDL WIP Response Committee to discuss the use of VAST, local BMP data and strategy development. 22 local

staff and resource experts attended. Received active participation from the Soil and Water Conservation Districts. Identified complications with using the VAST reporting system.

December 14th, 2011

- MPPDC Monthly Commission Meeting: Commission discussed Total Maximum Daily Loading, Watershed Implementation Plans, and local involvement. Discussed why local governments should participate in the Bay TMDL if they are not required to do so" as well as discussed what would happen if local governments reject the regulatory reductions.

January 5th, 2011

- Convened the third meeting of the Middle Peninsula Local TMDL WIP Response Committee to discuss the use of VAST, local BMP data and strategy development. Received active participation from the Soil and Water Conservation Districts. 24 local staff and resource experts attended. Discovered significant complications with using the VAST reporting system. Concurred in principle that reporting outside VAST may be the most constructive approach.

January 20, 2011

- Convened the monthly meeting of the Middle Peninsula Local Government Administrators to discuss the status and direction of the Virginia Phase II Watershed Implementation Plan. Discussed the DCR request for local assistance and provided an update on the progress of the Middle Peninsula Local TMDL WIP Response Committee's work. Discussed how each locality would most likely respond to DCR.

January 25, 2011

- MPPDC Monthly Commission Meeting. The Commission discussed local specific strategies for responding to DCR.

1. Non-regulated Urban Sector

LU/LC Name	LU Data from Bay Model v. 5.3.2 (Acres)	County's Updates - Actual Current Land Use (Acres)	Comments (e.g., year, data source, description)
Nonregulated Pervious Developed			
Nonregulated Impervious Developed			
[TOTAL Pervious & Impervious]	6381	6381	
Nonregulated Extractive	606	620	GIS calculations

BMP Name *(Land Use Type)*	Year	BMPs Data from Bay Model v. 5.3.2 (Acres Unless otherwise	BMPs from VAST (% of land cover)	County's Updates - Current BMPs (Acres Unless otherwise Specified)	County's Updates - 2025 BMP Goals (Acres Unless otherwise Specified)	Comments (e.g., data source, description)
Dry Detention Ponds *(Impervious & Pervious)*	2009*	382	2.5	5		
	2025				15	estimate
Dry Extended Detention Ponds *(Impervious & Pervious)*	2009*	382	2.5	0		
	2025				5	estimate
Bioretention/rain gardens *(Impervious & Pervious)*	2009			4		
	2025				15	Estimate
Urban Filtering Practices *(Impervious & Pervious)*	2009			10.7		
	2025				15	
Urban Infiltration – No Sand/Veg *(Impervious & Pervious)*	2009					
	2025					
Wet Ponds & Wetlands *(Impervious & Pervious)*	2009	256	1.69	260		Average
	2025				500	
Urban Stream Restoration *(Ln Ft of stream)*	2009		n/a			
	2025		n/a			
Abandoned Mine Reclamation *(Extractive)*	2009		0.24			
	2025		5			Estimated

Impervious Surface Reduction *(Impervious)*	2009				*	
	2025					
Urban Nutrient Management *(Pervious)*	2009			50		
	2025				100	
Street Sweeping Pounds *(Impervious)*	2009					
	2025					
Urban Tree Planting *(Pervious)*	2009					
	2025					
Urban Forest Buffers *(Pervious)*	2009					
	2025					
Urban Grass Buffers *(Pervious)*	2009					
	2025					
	2009					
	2025					
	2009					
	2025					

*Known discrepancy in VAST per VA DCR, 12/20/11; the Dry Detention and Dry Extended Detention numbers are reversed.