

# PATUXENT RESERVOIRS WATERSHED PROTECTION GROUP



Supplementary Documentation  
In Support of the Patuxent Reservoirs  
Technical Advisory Committee's  
2012 Annual Report

## Contents

List of Acronyms and Abbreviations .....	iii
Introduction .....	1
Agricultural Progress.....	2
Community Outreach Initiatives.....	4

## Figures

Figure 1. Number of Soil Conservation & Water Quality Plans Developed.....	2
Figure 2. Farm Acres with Soil Conservation & Water Quality Plans .....	3
Figure 3. Number of Best Management Practices Installed .....	3
Figure 4. Educating young on-lookers using a watershed model at the Family Campfire .....	4
Figure 5. Volunteers pulling invasive weeds near Brighton Dam.....	4

## Appendices

Appendix A: Annual Policy Board Meeting Presentation	
Appendix B: Annual Policy Board Meeting Summary	
Appendix C: Policy Board Correspondence	
Appendix D: Technical Advisory Committee Meeting Agendas and Summaries	
Appendix E: Patuxent Reservoirs Watershed Protection Agreement	
Appendix F: Patuxent Reservoirs Protection Strategy Agricultural MOU and Amendments	
Appendix G: Technical Advisory Committee Members and Participants	

## List of Acronyms and Abbreviations

<b>Acronym</b>	<b>Definition</b>
BMP	Best Management Practice
PRW	Patuxent Reservoirs Watershed
SCD	Soil Conservation District
TAC	Technical Advisory Committee

## Introduction

This year's Technical Supplement contains more detailed information on activities discussed in the *2012 Annual Report of the Technical Advisory Committee*.

Supplemental information to this year's annual report contains the following information:

- Summaries of the Howard and Montgomery Soil Conservation Districts' agricultural progress within the Patuxent Reservoirs Watershed (PRW),
- Photos of the community outreach initiatives,
- Policy Board 2012 annual meeting presentation and summary,
- Policy Board correspondence during 2012,
- Technical Advisory Committee (TAC) meeting agendas and summaries,
- Patuxent Reservoirs Watershed Protection Group founding documents, and
- List of TAC members and participants.

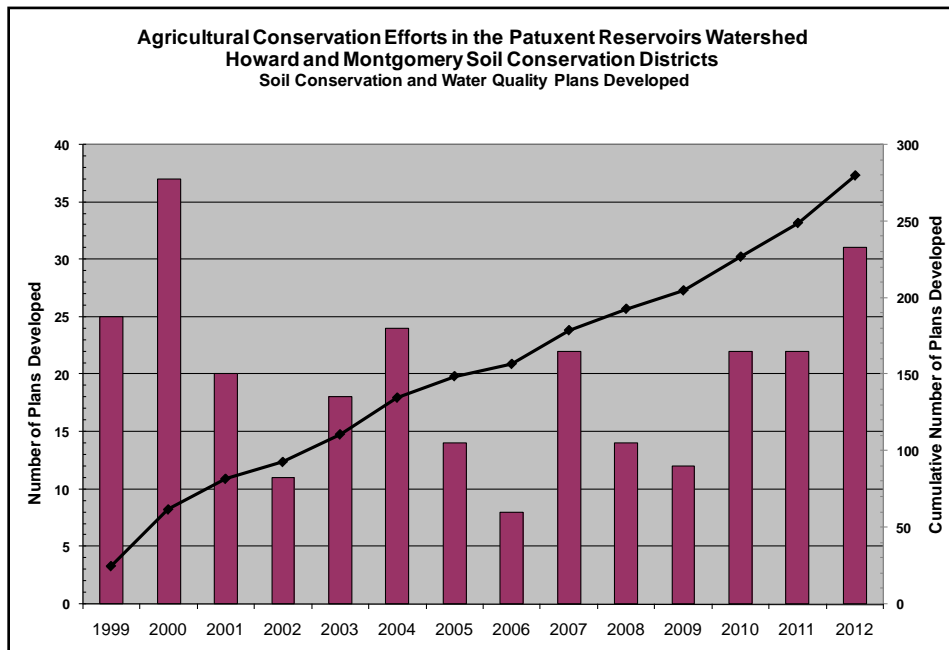
## Agricultural Progress

Annual accomplishments of the Howard and Montgomery Soil Conservation Districts were summarized in Table 4 of the *2012 Annual Report of the Technical Advisory Committee*. Three charts are included in this Supplement to summarize the historical progress of both Soil Conservation Districts (SCDs) since 1999 (Figures 1-3).

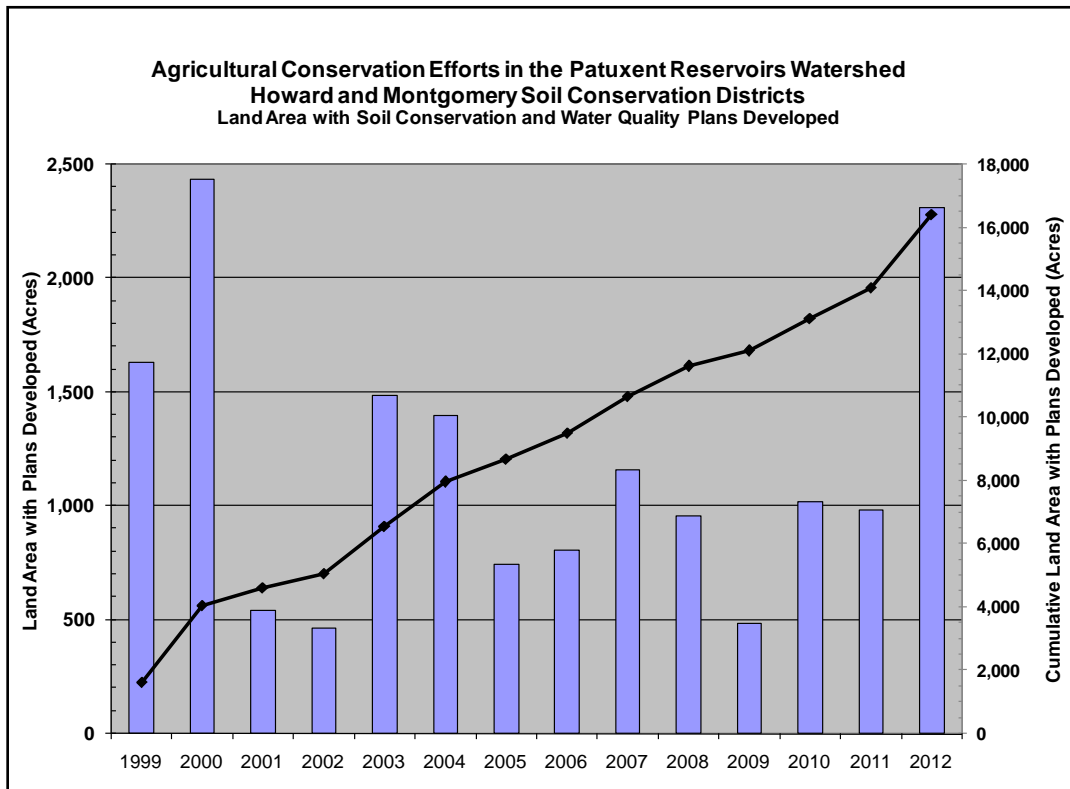
The number of *new* Soil Conservation and Water Quality Plans (plans) developed throughout the watershed (31) was the second highest annual total since 1999 (Figure 1). Planners from the Howard SCD also revised seven additional conservation plans. Since 1999, both SCDs have developed a total of 280 plans and revised 84 additional plans.

The agricultural land area within the PRW with a new Soil Conservation and Water Quality Plan more than doubled (2,308 acres) from the prior year (Figure 2). This annual total was the second highest since 1999, and it does not include the land area where conservation plans were updated. Since 1999, both SCDs have developed new conservation plans for a total of 16,415 acres and revised plans for an additional 7,901 acres.

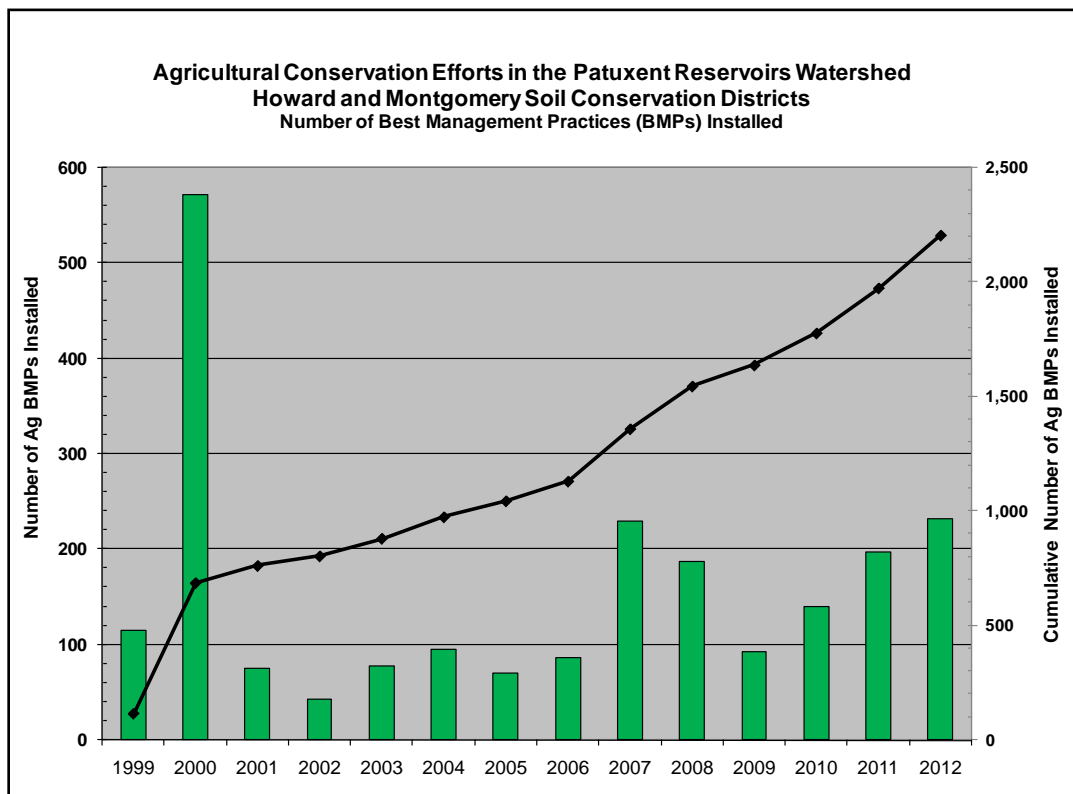
The number of agricultural best management practices (BMPs) constructed in 2012 (231) has steadily increased since 2009 (Figure 3). The annual total for 2012 was the second highest since 1999. The number of BMPs installed is one indicator of how well the conservation plans are being implemented. Since 1999, both SCDs have assisted with the installation of 2,206 practices in the PRW alone. The large values evident in all three figures below during 2000 was most likely due to the hiring of a Conservation Planner dedicated to implementing practices within the PRW (personal communication, David Plummer, District Manager, Montgomery SCD).



**Figure 1. Number of Soil Conservation & Water Quality Plans Developed**



**Figure 2. Farm Acres with Soil Conservation & Water Quality Plans**



**Figure 3. Number of Best Management Practices Installed**

## Community Outreach Initiatives

Several successful community outreach events were held in 2012 including the annual Family Campfire event (Figure 4) and 30 volunteer stewardship days (Figure 5).



**Figure 4. Educating young on-lookers using a watershed model at the Family Campfire**



**Figure 5. Volunteers pulling invasive weeds near Brighton Dam**

## Appendix A: Annual Policy Board Meeting Presentation



# Patuxent Reservoirs Watershed Protection Group

## Annual Meeting of the Policy Board

December 10, 2012



The Maryland-National Capital  
Park and Planning Commission



**Howard Soil Conservation District**  
*Local Farms, Healthy Communities*

**Montgomery Soil Conservation District**



# Highlights of 2012 Accomplishments

## Priority Resources

Reservoirs & Water Supply

Terrestrial Habitat

Stream System

Aquatic Biota

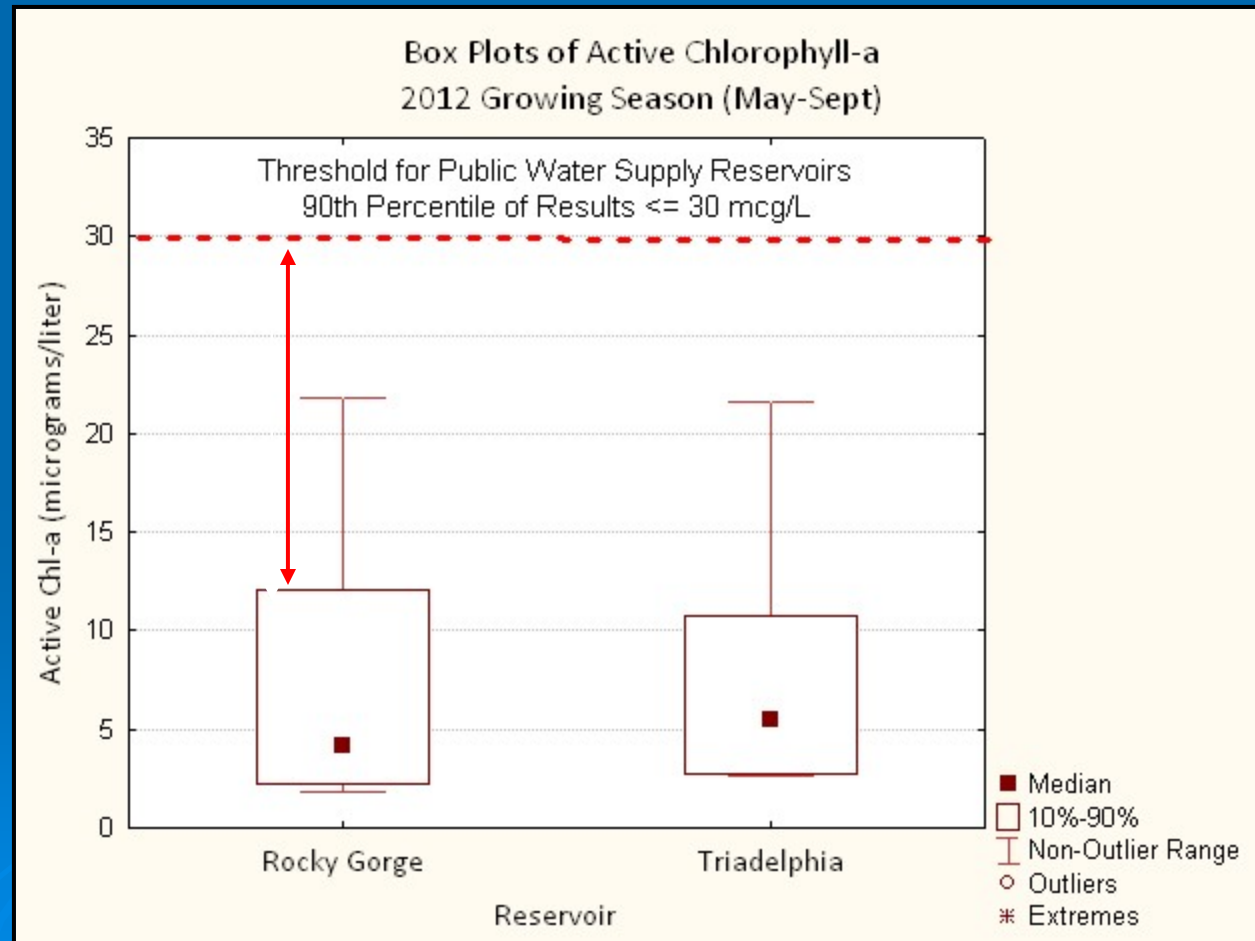
Rural Character & Landscape

Public Awareness & Stewardship



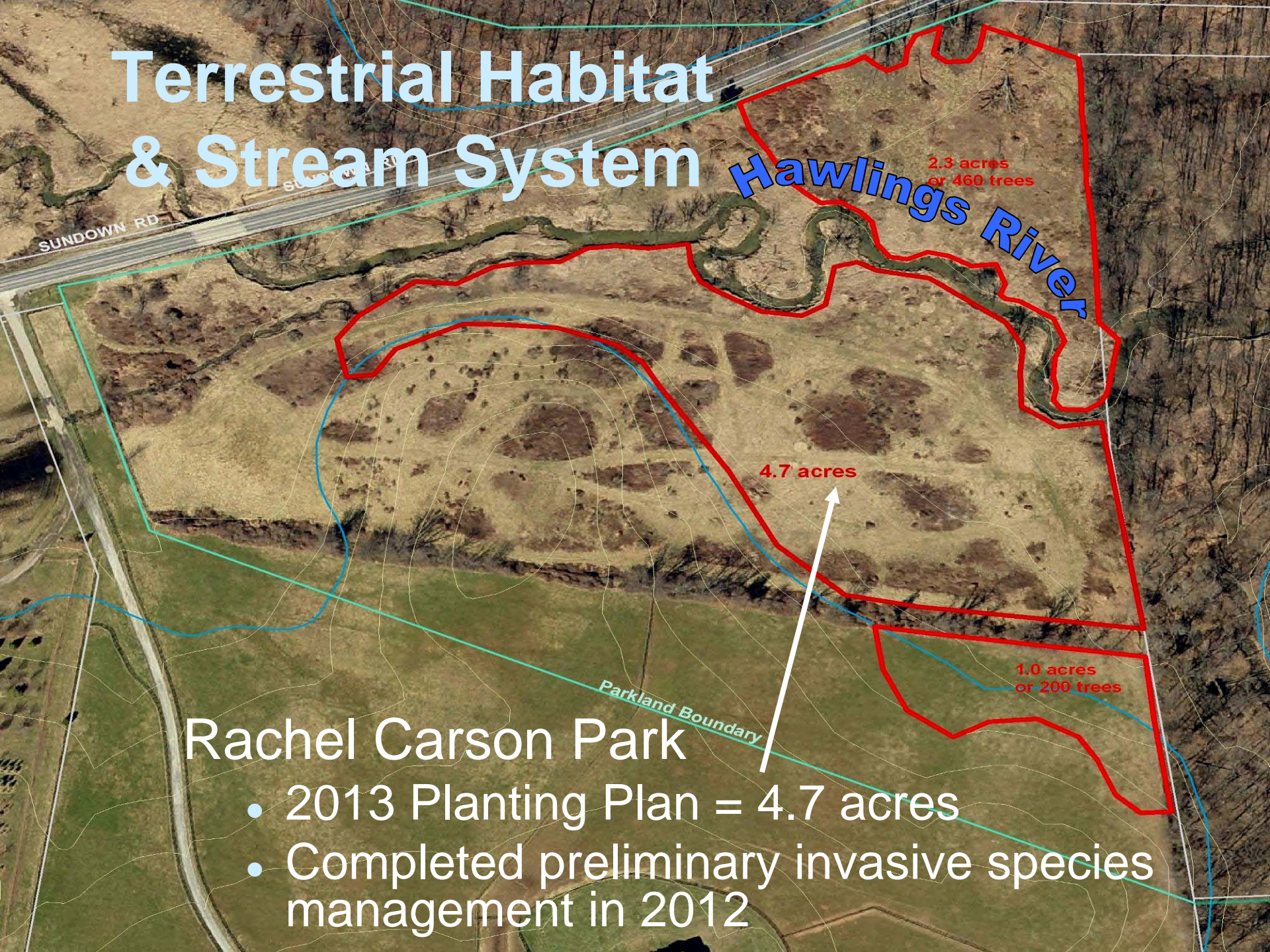
# Reservoir & Water Supply

- Chlorophyll-a used to indicate algal abundance
- 2012 results did not exceed MDE criterion





# Terrestrial Habitat & Stream System



Hawlings River

2.3 acres  
or 460 trees

4.7 acres

1.0 acres  
or 200 trees

Parkland Boundary

## Rachel Carson Park

- 2013 Planting Plan = 4.7 acres
- Completed preliminary invasive species management in 2012



# Terrestrial Habitat & Stream System

## ➤ Reddy Branch Planting

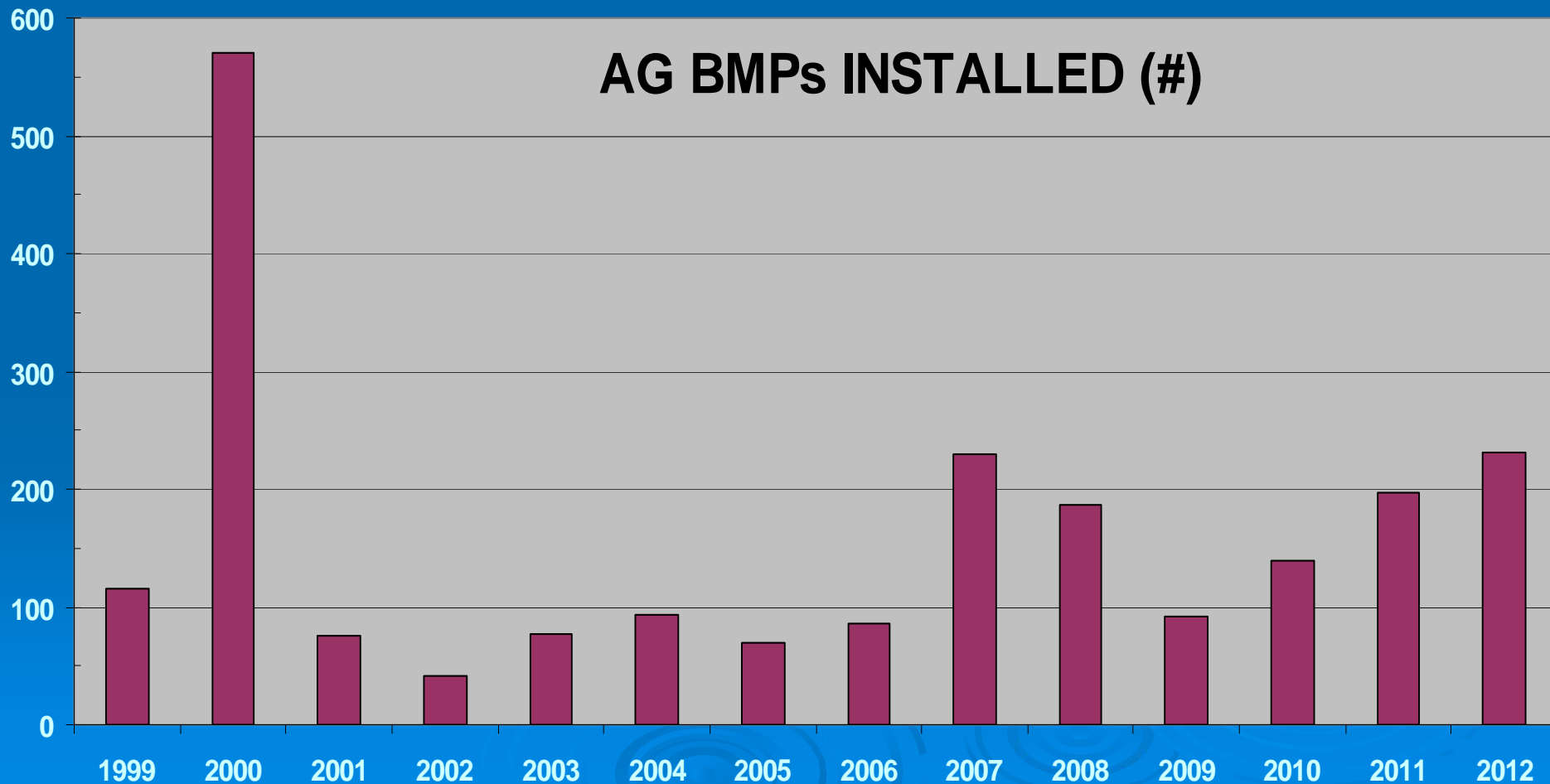
- > 5 acres planted buffering 1,700 ft of stream
- Volunteers installed tree protectors to reduce deer damage
- Final planting area planned for 2013



# Rural Character & Landscape

Efforts by both SCDs:

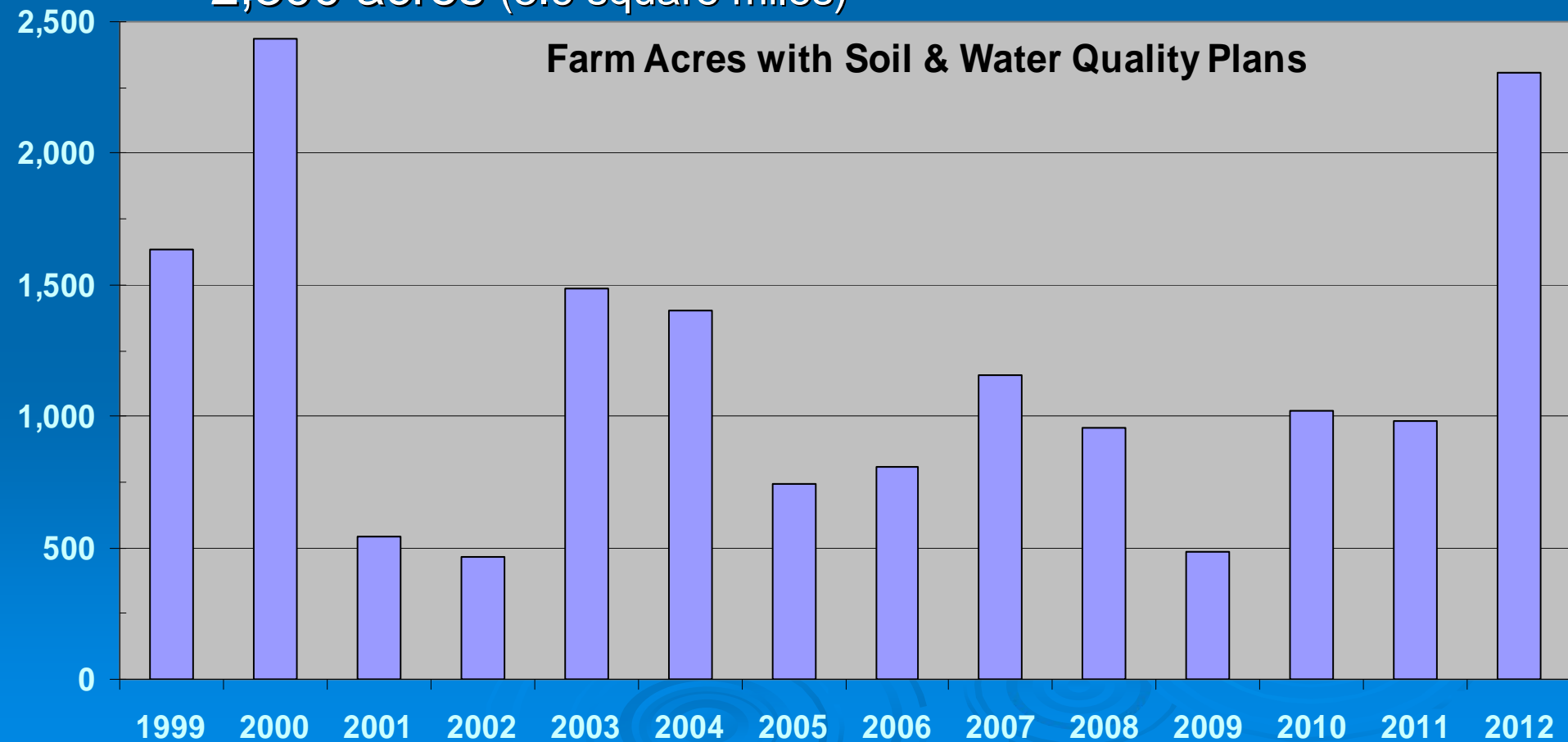
- Assisted 37 land owners with installation of 231 BMPs



# Rural Character & Landscape

More efforts in Patuxent by SCDs:

- Developed 31 Soil Conservation & Water Quality Plans for ~2,300 acres (3.6 square miles)





# Public Awareness & Stewardship

- Many Outreach Events Held in 2012
  - H2O Fest, Watershed Day, & Family Campfire
  - Patuxent River & Adopt-A-Road Clean-Ups
  - Invasive Plant Removal
  - Tree Planting



Many volunteers hauled, pulled and planted...



Family Campfire

Hauled trash



Pulled Weeds



Planted and protected trees from deer browse



# Patuxent Reservoir TMDLs



# Addressing TMDLs

Established **T**otal **M**aximum **D**aily **L**oad (TMDLs)

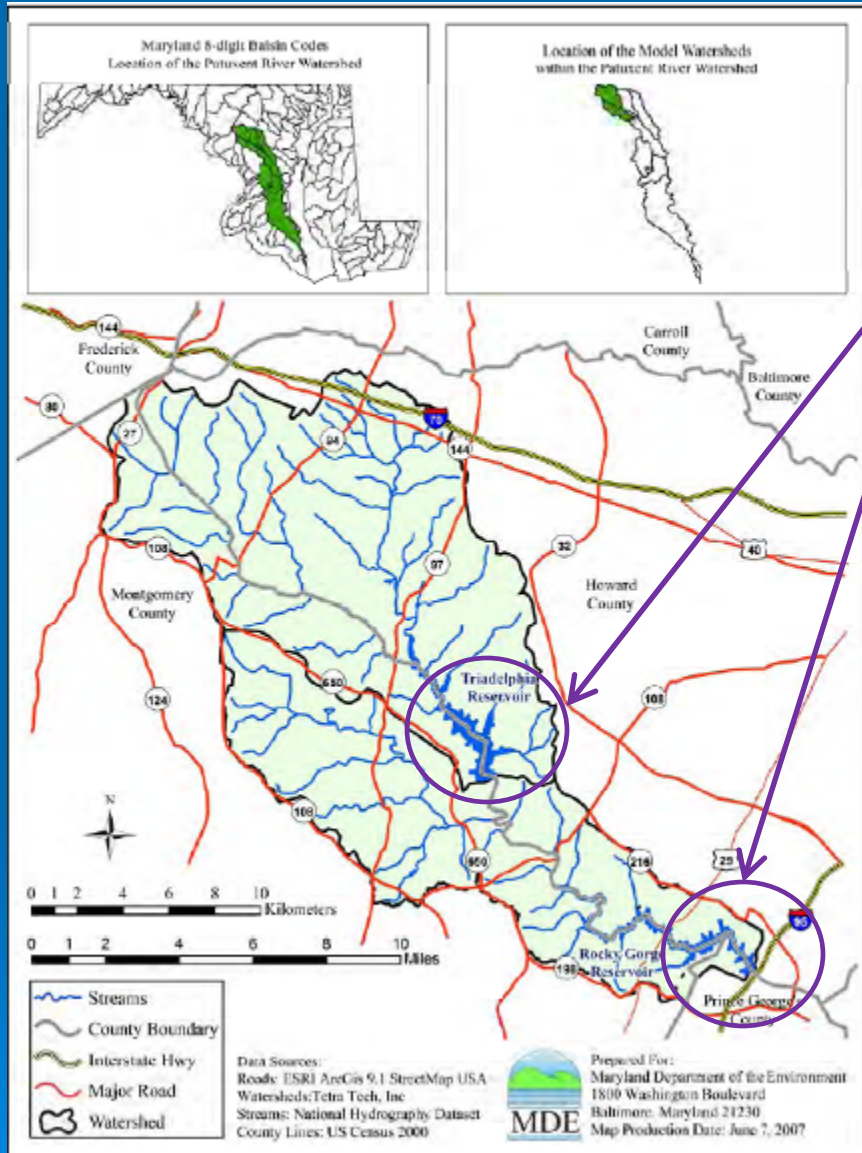
- Triadelphia Reservoir
  - Phosphorus and Sediment
- Rocky Gorge Reservoir
  - Phosphorus

MDE submitted TMDL Study to EPA June 2008

EPA approval issued November 2008

Implementation plans required - through Local NPDES permits

# Reservoir Locations and Descriptions

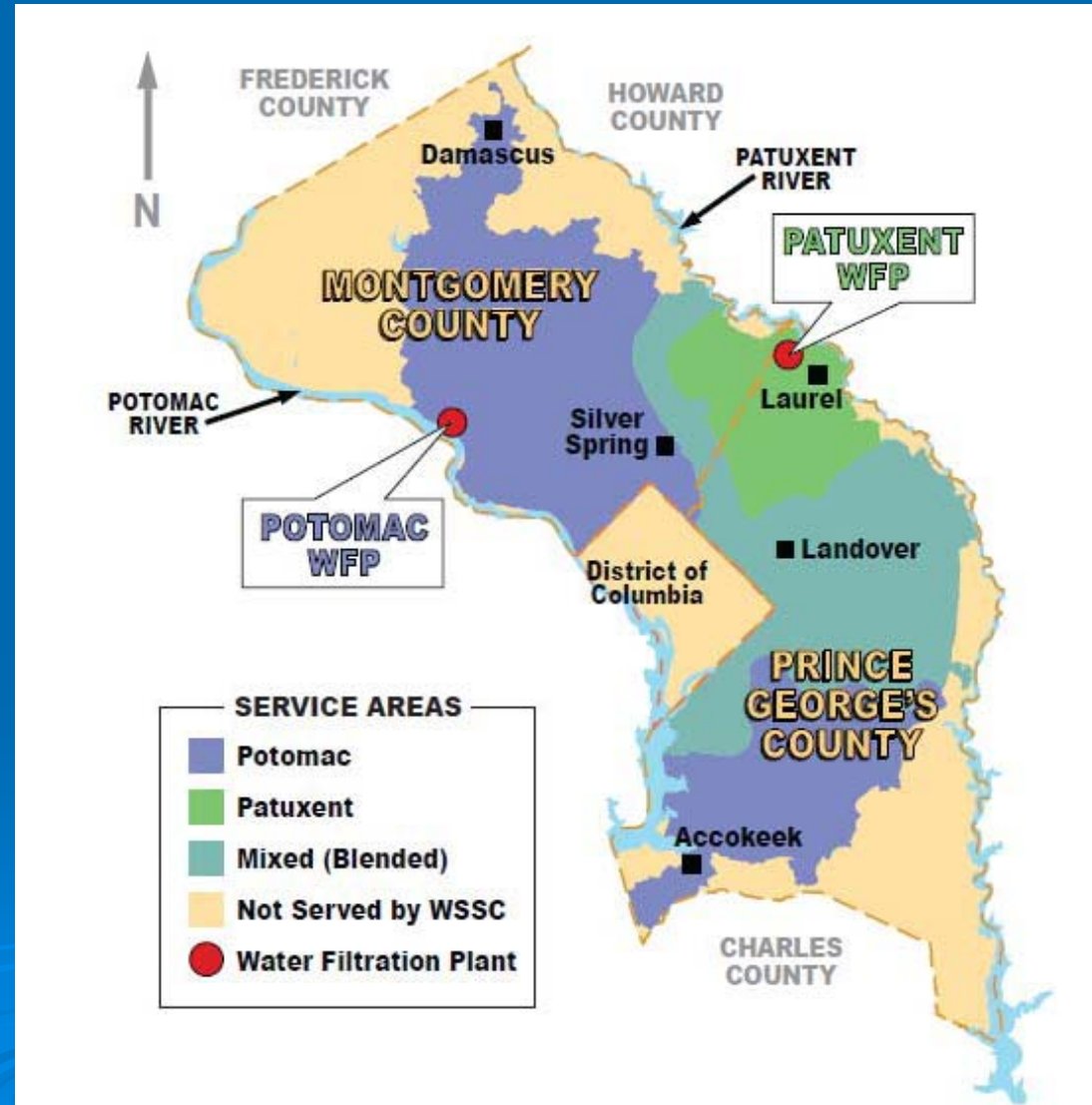


Characteristic	Triadelphia	Rocky Gorge
Location:	Howard Co. Montgomery Co.	Howard Co. Montgomery Co. Prince George's Co.
Purpose:	Water Supply Recreation	Water Supply Recreation
Surface Area:	800 acres	773 acres
Volume:	19,000 ac-ft	17,000 ac-ft
Drainage Area:	49,500 acres	84,480 acres
Av. Discharge:	82.4 ft <sup>3</sup> / sec	85.9 ft <sup>3</sup> / sec

# Drinking Water Service Area

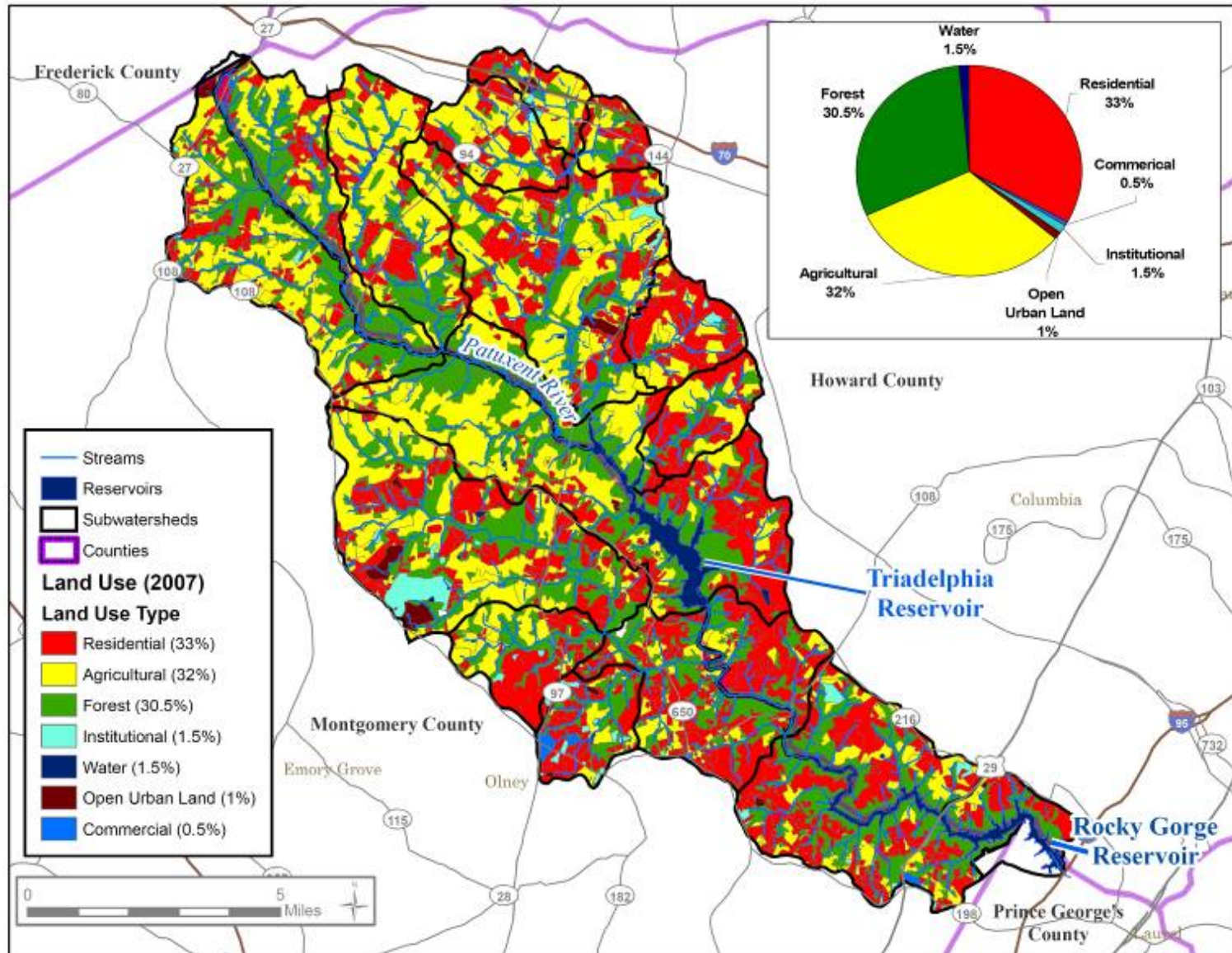
## ➤ Patuxent Reservoirs

- Provide water to about 1/3 of WSSC Customers
- Majority of the service area in Prince George's County





# Land Use / Land Cover (2007)



# TMDLs by the Numbers

Waterbody	Triadelphia		Rocky Gorge
Constituent	Total Phosphorus (lbs/yr)	Sediments (tons/yr)	Total Phosphorus (lbs/yr)
Starting Point	65,953	32,141	46,935
Percent Reduction Needed	<b>58%</b>	<b>29%</b>	<b>48%</b>
TMDL (Goal)	27,700	22,820	24,406
Point Sources	5,288	400	7,429
Non-Point Sources	21,027	22,420	15,757
Safety Margin	1,385	Implicit	1,220

**Regulated under NPDES (Urban & WWTP)**

**Not Regulated under NPDES: agriculture & older large-lot residential development**

# MDE's Assurance of TMDL Implementation

- NPDES Regulated Programs (Long Term)
- Maryland's Tributary Strategies (Long Term)
- Water Quality Improvement Act of 1998 (Long Term)
  - Nutrient Management Plans for Agriculture
- Patuxent Reservoirs Watershed Protection Group Agreement (Tracking Progress)
- MDE's Watershed Cycling Strategy
  - Routine Water Quality Monitoring (5 year Rotation)

# Six Important Issues to Consider in the Future

1. Continue implementation to meet MS4 Permit conditions
2. Continue implementing agricultural BMPs (via the Bay WIP)
3. Bay WIP requires 60% reduction from 2009 baseline by 2017 and 100% by 2025, **BUT** these are county-wide goals unlikely to meet Reservoir TMDLs
4. No regulatory timeline for achieving local TMDLs to meet State water quality standards
5. Urban BMP tracking and reporting via MS4 Permit on a county-wide basis
6. Need for tracking and reporting all BMPs to ensure local progress



# TAC Recommendations for the Policy Board

1. Continue with TAC strategies and pursue interim data tracking and assessments
2. TAC to re-evaluate existing TAC staff resources, time and priorities to devote for TMDL tracking and reporting
3. Policy Board to identify \$70,000 in FY14 funding for a part-time staff position to:
  - Develop, collect, and report on BMP implementation progress
  - Determine the optimal timing and estimated costs of TMDL Implementation Plan development
4. At Fall 2014 Policy Board Meeting, TAC to provide recommendations and cost estimates from interim assessment for the development of Reservoirs' TMDL implementation plans (if funded in FY14)

Questions?



---

# Agricultural Cost-Share Program in the Patuxent Reservoirs' Watershed

---

Request for Continued Funding for Use  
by the Howard Soil Conservation District



Howard Soil  
Conservation District  
*Local Farms, Healthy Communities*

# Summary of Benefits

- About \$35,000 spent to assist 14 farmers install BMPs
- BMPs include
  - Stream Protection with Fencing (along about 1 mile of stream totaling 4¼ acres)
  - Grassed Waterways (0.7 acre)
  - Stream Buffer Planting (1.75 acres)



# Estimated Nutrient & Sediment Removed from BMP Installations

Best Management Practice (BMP)	Amount Installed by Howard SCD		Nitrogen Reduced Annually by BMP	Phosphorus Reduced Annually by BMP	Sediment Reduced Annually by BMP	Nitrogen Reduced During BMP Maintenance Life	Phosphorus Reduced During BMP Maintenance Life	Sediment Reduced During BMP Maintenance Life
	(ac)	BMP Maintenance Life (yr)						
Stream Protection with Fencing	4.24*	10	28.79	3.86	0.76	287.9	38.6	7.6
Grassed Waterway	0.70	10	6.69	0.18	0.11	66.9	1.8	1.1
Riparian Forest Buffer	1.75	15	47.74	3.76	0.61	716.1	56.4	9.2
<b>Total =</b>			<b>83.22</b>	<b>7.80</b>	<b>1.48</b>	<b>1,070.9</b>	<b>96.8</b>	<b>17.9</b>

\* Derived from 5,271 linear feet of steam exclusion fencing Installed and 35 feet average buffer width

---

Questions or Comments?

---





# WSSC Patuxent Reservoirs Water Supply Protection Buffer Property Study

Briefing for Patuxent Reservoirs Watershed  
Protection Group Policy Board

10 December 2012

# Watershed Protection Study

- Methods
  - Work Plan
  - Existing reports and studies, interviews
  - Desktop GIS
  - Stakeholder outreach
  - Field mapping  
(recreation areas, shoreline trails, interior trails, perimeter access road)
  - Draft and Final Report





# Study Observations

- Shoreline trails
- Interior trails
- Perimeter access roads
- Recreation areas
- Recreational uses and abuses
- Property maintenance
- Programs



# Study Recommendations

1. Erosion prevention, control and restoration
2. Fire protection
3. Security and enforcement
4. Forest management
5. Wildlife and invasive species control
6. Public access
7. Recreational uses
8. Impacts from neighboring land
9. New or expanded programs



# Study Recommendations

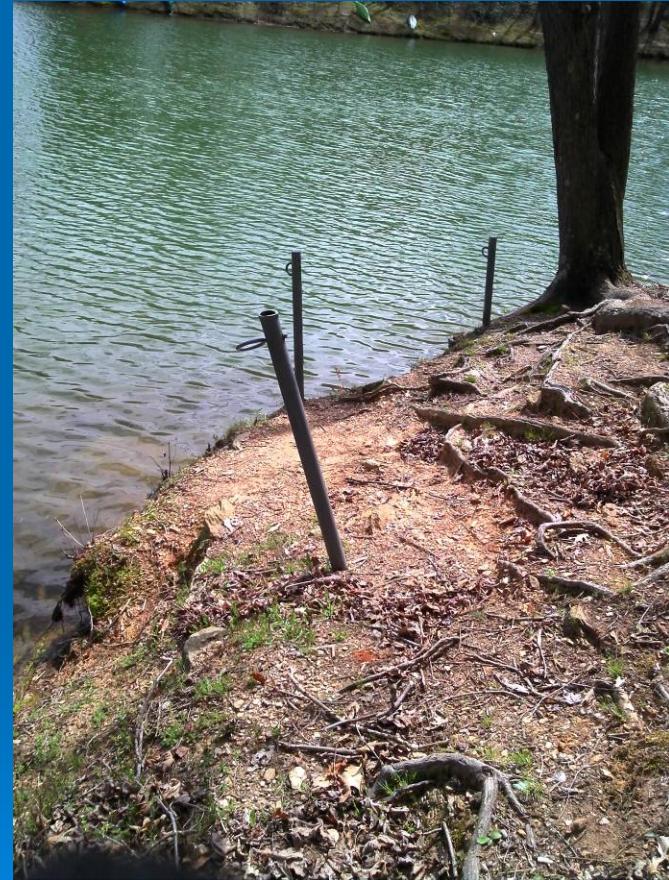
1. Erosion prevention and restoration
  - Maintain access road, restore eroded sections
  - Repair, improve or replace culverts





# Study Recommendations

1. Erosion prevention and restoration (continued)
  - Shoreline trail bridges
  - Unauthorized shoreline fishing trails
  - Recreational use of Triadelphia access road



# Study Recommendations

## 2. Fire protection

- Fire Protection Plan
- Are perimeter access roads needed?



## 3. Security and enforcement

- Patrols
- Citations
- Publicize penalties





# Study Recommendations

## 4. Forest management

- Re-examine 2007 Forest Conservation Plan
- Implement specific FCP recommendations:
  - Land disturbance, sediment
  - Mature tree stand density
  - Species and age diversity
  - Sensitive habitat areas



# Study Recommendations

5. Wildlife and invasive species control
  - Expand managed deer hunts
  - Invasive plant eradication or control





# Study Recommendations

## 6. Public access

- Improve, standardize or customize signage
- Mark or post property boundary
- Re-establish fencing
- Adequate and appropriate parking





# Study Recommendations

## 7. Recreational uses

- Additional trash receptacles
- Boat access restrictions
- Permit limitation, group rides
- Wet-weather criteria
- Maps of authorized trails



# Study Recommendations

## 7. Recreational uses (continued)

- Shoreline buffer setback
- Trail maintenance and modification guidance
- Stream crossing guidance
- Consult Soil Conservation Districts





# Study Recommendations

8. Impacts from neighboring land
  - Proper Nutrient (Manure) Management
  - Unauthorized access points from private properties



# Study Recommendations

9. New or Expanded Programs
  - Develop source water protection program
  - Purchase additional land, easements, or fund BMPs
  - Targeted education and outreach



# Study Recommendations

## 9. New or Expanded Programs (continued)

- Reporting system
- Fee-based permits for amenities
  - Trash collection, sufficient parking, restrooms, signage, boat ramp and riding trail maintenance and improvements





# WSSC Next Steps



- Short-term actions
- Long-term planning
- New program opportunities
- Budget implications

# Short-term Plan

- Proposed changes
- Engage stakeholder reps. and groups  
In progress for past 2 weeks
- Draft amended watershed user regulations  
Ready by spring

# Short-term Plan



## Review Watershed User Regulations

- Seasonal closure period
- Appropriate trails for fishing, riding
- Access points
- Parking and turnaround space



# Short-term Plan



## *For Review*

- Prohibited activities (hiking, ATVs)
- Wet-weather criteria
- Access point signage
- Property line marking
- Trash containers

# Short-term Plan

## *For Review*

- Shoreline setback?
- Stream crossing criteria
- Riding trail surface criteria
- New authorized trail maps
- Signs-authorized fishing/riding trails
- No-entry signs-unauthorized spur trails



# Long-term Planning

- Security & enforcement
- Fire protection
- Forest management
- Wildlife /invasive species control
- Property access
- Riding access



# Long-term Planning



- Erosion control
  - Canoe /boat storage areas
  - Restore unauthorized trails to natural state
  - Bridges for stream crossings
  - Treatment of high-use areas
  - Stream restoration opportunities

# New Program Opportunities

- Purchase land / easements
- Implement BMPs
- Source Water Protection Plan
- Outreach and education



# Budget Implications

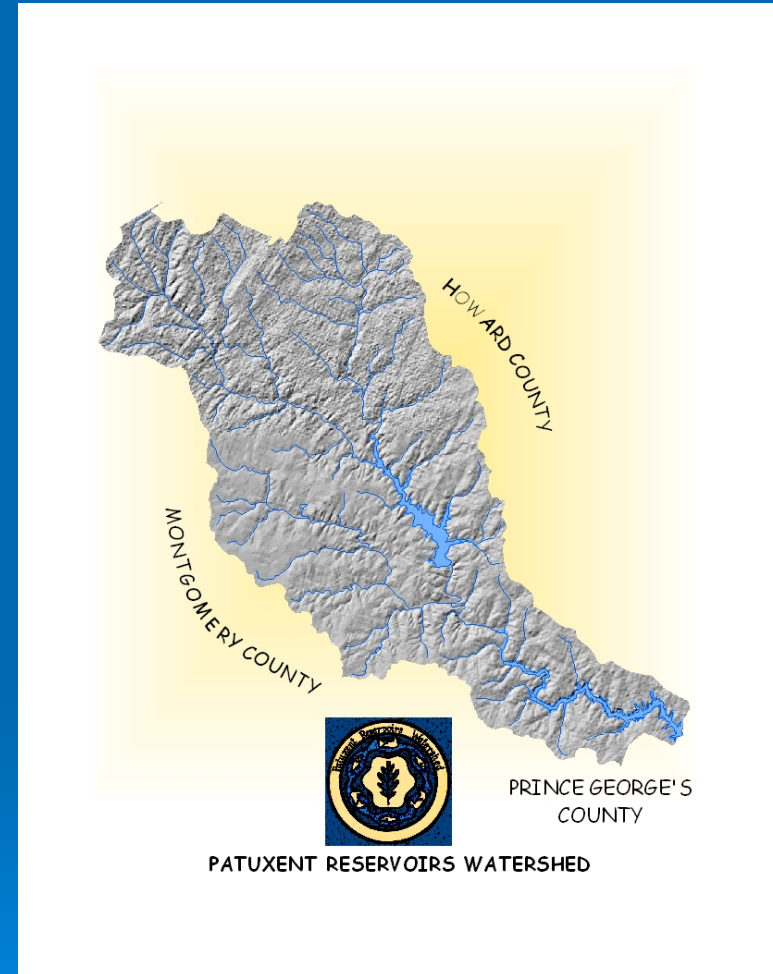


- Adjust user permits /fees to limit burden on WSSC customers:
  - Trash collection
  - Restrooms /parking
  - Signage
  - Boat ramp /riding trail maintenance and improvements



# Watershed Protection Study

- Phase 1 of intended 2-phase effort
  - WSSC owned property (~5,600 acres)
  - Future Phase 2 : Remainder of watershed (~80,000 acres)





# Thank You

Report is posted  
on WSSC website

[www.wsscwater.com](http://www.wsscwater.com)

Look under  
Our Environment /  
Watershed Protection



## Appendix B: Annual Policy Board Meeting Summary



Robert G. Hoyt, Chair ..... Montgomery County  
Joshua D. Feldmark..... Howard County  
William E. Barnes ..... Howard Soil Conservation District  
Françoise M. Carrier, Esq. ...Maryland-National Capital Park and Planning Commission  
George E. Lechluder..... Montgomery Soil Conservation District  
Adam Ortiz..... Prince George's County  
Jerry N. Johnson..... Washington Suburban Sanitary Commission

January 9, 2013

Dear Policy Board Member:

On behalf of the Patuxent Reservoirs Watershed Protection Group, I would like to thank you for participating in our recent annual meeting. It was a lively meeting in which many important issues were discussed including the relative financial obligations of the various members and stakeholders in funding the initial steps needed to meet the water quality goals assigned to the reservoirs. As a result of the meeting, part time staff will be hired to initiate the development of the implementation plans to achieve the Total Maximum Daily Loads (TMDLs) for the Reservoirs. Additionally, funds will be provided to the Howard Soil Conservation District for the Patuxent Reservoirs Watershed Agriculture Cost-Share Program. Enclosed is a summary of the meeting prepared by Steve Nelson, the TAC Coordinator. If you have any comments or questions, please contact Steve at (301) 206-8072.

Since 1996, we have shared ideas and leveraged resources to strategize on water quality and resource protection efforts for the Patuxent Reservoirs and their watersheds. This year we begin to address an increased level of requirements and challenges presented by the TMDLs for phosphorus and sediment that were established by the Maryland Department of the Environment for the Triadelphia and Rocky Gorge water supply reservoirs in 2008.

For 2013, TAC will continue to implement the existing strategies and also pursue interim data tracking and data assessments. There will be communications via conference calls in addition to quarterly meetings, and a consultant will be hired to assess the need for and the optimal timing of a TMDL Implementation Plan.

Sincerely,

A handwritten signature in blue ink, appearing to read "Robert G. Hoyt".

Robert G. Hoyt, Director  
Montgomery County Department of Environmental Protection

Enclosure

cc: Patuxent Reservoirs Watershed Technical Advisory Committee  
Steve Nelson, WSSC Environmental Scientist and TAC Coordinator

**Technical Advisory Committee**

Bert Nixon, HCDH ..... Susan Overstreet, HCDP&Z.....Howard Saltzman, HCDPW  
Kristal McCormick, HSCD ..... Byron Petruskas, MDA ..... Vacant, MDE  
Vacant, MDNR ..... Mark Symborski, M-NCPPC ..... Meosotis Curtis, MCDEP  
Vacant, MCDPS ..... David Plummer, MSCD ..... Ken Clare, PGCDH  
Jerry Maldonado, PGCDER ..... Martin Chandler, WSSC.....



## **Patuxent Reservoirs Watershed Protection Group**

### **Annual Policy Board Meeting Summary**

**December 10, 2012**

**Washington Suburban Sanitary Commission, Auditorium**

#### **Policy Board:**

Adam Ortiz, Chair, Prince George's County

William Barnes, Howard Soil Conservation District

James Caldwell, Howard County, for Joshua Feldmark

Françoise Carrier, Maryland-National Capital Park and Planning Commission

Robert Hoyt, Montgomery County

George Lechliger, Montgomery Soil Conservation District

Jerry Johnson, Washington Suburban Sanitary Commission

#### **Technical Advisory Committee (TAC) Members and Alternates Present:**

Martin Chandler (WSSC), Meo Curtis (MCDEP), Jerry Maldonado (PGCDER), Kristal McCormick (HSCD), Bert Nixon (HCDH), Susan Overstreet (HCDPZ), Byron Petrauskas (MDA), David Plummer (MSCD), Howard Saltzman (HCDPW), Mark Symborski (M-NCPPC), Debbie Weller (PGCDER)

#### **Other Attendees:**

Kathleen Boucher (Montgomery County), Chris Brous (WSSC), Gary Gumm (WSSC), Mohammad Habibian (WSSC), Kim Knox (WSSC), Steve Nelson (WSSC), Jim Neustadt (WSSC), Caroline Nguyen (WSSC), Lyn Poorman (MDE), Jay Price (WSSC), Kirk Wineland (WSSC), Karen Wright (WSSC)

#### **Welcome and Opening Remarks**

The meeting opened at 2:15 p.m. Mr. Johnson, WSSC General Manager, welcomed everyone present. Mr. Ortiz, Policy Board Chair, introduced himself as the newly appointed Acting Director of Prince George's County Department of Environmental Resources. He then invited Mr. Maldonado, TAC Chair, to present the 2012 accomplishments.

#### **2012 Annual Report of Accomplishments**

Mr. Maldonado noted the following highlights for 2012:

- Preliminary invasive species management was completed in preparation for planting almost five acres of trees along the Hawlings River within Rachel Carson Park planned for 2013.
- Agricultural efforts by the Soil Conservation Districts included developing conservation plans for about 2,300 acres of land, and assisting 37 land owners with the installation of 231 BMPs.



**Patuxent Reservoirs Watershed Protection Group  
Annual Policy Board Meeting Summary  
December 10, 2012**

- Many community outreach events occurred including: the H2O Fest, Watershed Day and Family Campfire events; numerous environmental stewardship activities (e.g., tree plantings, invasive weed removal and trash cleanups); and activities by the IWLA–Wildlife Achievement Chapter.

**Request for New Funding of Part-Time Staff Position for TMDL Implementation**

Mr. Maldonado summarized the important points of the TMDLs approved by USEPA for the reservoirs. He emphasized that accounting for past and future BMP installation is needed to monitor progress for meeting the reservoir TMDL load reductions. He then asked the Policy Board to support the TAC’s recommendation for a funding request of \$70,000 in FY14. The Policy Board members deliberated this funding request and debated which agencies would contribute and at what cost. During the discussion, the TAC was tasked to arrange the details for hiring the consultant.

Action: At the conclusion of the discussion, a consensus was reached to fund this request for \$70,000 in FY14. The following agencies agreed to fund the request at specific contribution levels:

- Maryland-National Capital Park and Planning Commission (\$20,000)
- Montgomery County (\$10,000)
- Prince George’s County (\$10,000), and
- WSSC (\$30,000).

**Request for Continued Funding of Patuxent Agriculture Cost-Share Program at Howard SCD**

In response to a request from the WSSC during the last Policy Board meeting, Ms. McCormick provided a summary of the work accomplished assisting land owners with implementing BMPs as well as an overview of historical spending (e.g., salary, education & outreach). The funding request was for a total of \$50,000 in FY14 to be provided by Howard County and the WSSC.

- The WSSC requested that the HSCD provide a more detailed report of historical spending and a proposed budget for how the new funds will be spent.

Action: At the conclusion of the discussion, the Policy Board reached a consensus to support this request with funding provided by Howard County (\$33,333) and the WSSC (\$16,667) with the provision that the HSCD supply a detailed accounting of past expenditures and a proposed budget for the \$50,000 to the WSSC within 45 days.

**Study of Patuxent Reservoirs Water Supply Protection Buffer Area**

Dr. Chandler presented a brief overview of the findings, recommendations and outcomes from a study of WSSC-owned land (5,600 acres) surrounding the reservoirs. There was no discussion or questions.

- The WSSC is revising regulations governing activities on its land surrounding the reservoirs. The WSSC plans to have a draft of amended regulations early in 2013 for

**Patuxent Reservoirs Watershed Protection Group  
Annual Policy Board Meeting Summary  
December 10, 2012**

public comment with the intent for adoption prior to the opening of the 2013 recreation season.

- This study is intended to function as the first phase of a two phase study. The phase 1 report is available on the WSSC web site.
- A future phase 2 of this study is envisioned. It would ideally include participation by other stakeholders in the remaining 80,000 acres. The scope of work, time frame, and funding sources have not been identified.

**Administrative Business**

Mr. Ortiz transferred the Policy Board Chair to Mr. Hoyt of Montgomery County. Mr. Hoyt adjourned the meeting at approximately 4:10 p.m.

## Appendix C: Policy Board Correspondence

Briefing Papers for Annual Meeting with Policy Board

Paper #1: Briefing Paper

Paper #2: Technical Supplement to the Briefing Paper

Summary of TAC Meetings for Policy Board

# **Recommendations to the Policy Board Regarding the Patuxent Reservoirs Total Maximum Daily Loads (TMDLs)**

August 28, 2012

## **Patuxent Reservoirs Watershed Protection Group Technical Advisory Committee (TAC)**

### **Executive Summary**

#### **I. Background**

The Patuxent Reservoirs are subject to regulatory pollutant Total Maximum Daily Loads (TMDLs), based on urban and non-urban sources. The loads reductions required to meet local water quality standards (protect reservoirs water quality) are much more stringent than those required to meet Chesapeake Bay TMDLs. Achieving TMDLs generally requires the development and long-term implementation of comprehensive watershed plans that address all relevant pollution sources. The three Reservoir TMDL options presented below represent a range from a 'no new-action' option, to an 'interim-action' approach for tracking progress in loads reductions which can then be translated to progress in meeting Bay restoration or Reservoirs water quality goals, to a comprehensive strategy for moving forward with developing and implementing Patuxent Reservoirs TMDL Implementation Plans.

#### **Important issues for all three options:**

- The Counties will move forward with the TMDL implementation plan development to achieve their Municipal Separate Storm Sewer System (MS4) permit requirements. These permits require watershed-specific plans that address urban land only, which constitutes a relatively small portion of the land and pollutant loadings in the Reservoirs watershed.
- Non-urban sources contribute the majority of the pollutant loads to the reservoirs, with agricultural land contributing the majority of pollutants from non-urban land (from Maryland Department of the Environment (MDE) TMDL Document). Agricultural sources will move forward with best management practices (BMP) implementation according to the Chesapeake Bay Watershed Implementation Plan (Bay WIP).
- The Bay WIP timeline requires implementation to achieve 60% of required load reductions by the year 2017 and 100% reduction by the year 2025 to meet Bay water quality goals.
- Load reductions realized under the Bay WIP will help reduce loads to the reservoirs, but it will not be sufficient to fully meet the reservoir TMDLs.
- So far, no regulatory timelines for achieving TMDLs have been established for local waters, including the Patuxent Reservoirs.
- Currently, the State requires that Counties track and report implementation towards Bay Restoration goals on a countywide basis rather than a watershed-specific basis. This is an impediment to assessing progress in the Reservoirs watershed and to assessing the need for TMDL implementation plans.
- In addition to the State's Bay WIP commitments, it is uncertain whether the State will be able to commit adequate resources to help landowners implement the non-urban BMPs that will be necessary to achieve local TMDLs, including the Reservoirs TMDLs.
- Landowner participation to install non-urban BMPs is primarily voluntary, and it is unknown if the availability of funding would motivate sufficient participation by landowners.



- MDE’s guidance and collaboration with local jurisdictions in developing a comprehensive strategy to address the Bay TMDLs has been vital to meaningful progress in developing the Bay WIP. Based on this experience, it is clear that MDE must also partner in developing any TMDL Implementation Plans for the Patuxent Reservoirs, especially with the non-MS4 pollutant load reductions. For the present, however, MDE’s focus is on the Bay WIP process

## II. Options and TAC Recommendations

The TAC has identified the following three options regarding the Patuxent Reservoirs TMDLs. Details on the rationale and possible consequences associated with each option are presented in Section IV.

**Option 1:** Maintain TAC strategies for the Reservoirs—No new actions by the TAC at this time to develop or further assess the need for TMDL Implementation Plans for the Patuxent Reservoirs.

- The TAC will continue ongoing efforts to use existing programs and methods for improving the reservoirs, as well as seek ways to use existing resources and staff time to optimize benefits to the Reservoirs.

**Option 2:** Continue with TAC strategies, but pursue interim data tracking and assessments to evaluate the need for and optimal timing of TMDL implementation plans development.

- *For Fiscal Year (FY) 13:* Continue with TAC strategies. In addition, prioritize TAC efforts to begin tracking results of actions and studies subsequent to data used to develop the TMDLs. This information will be required to evaluate the need for and optimal timing of TMDL plan development. Report periodically to the Policy Board on TAC TMDL-related findings.
  - Re-evaluate existing TAC agency resources , staff time and priorities to devote additional resources for tracking and reporting
- *Beginning in FY 14:* Preliminary estimates indicate that **\$70,000** for a part-time staff position will be needed to fully evaluate the need for and optimal timing of TMDL Plans development.
- Policy Board to identify FY 14 funding for a part-time staff position to enhance the tracking and reporting of actions and studies subsequent to data used to develop the TMDLs, in order to complete the evaluation of the need for and optimal timing of TMDL Plans development.

**Option 3:** Develop comprehensive Implementation Plans to meet Patuxent Reservoirs TMDLs.

- *For FY 13:* Continue with TAC strategies over the next fiscal year but focus on interim data tracking and assessments needed to support TMDL implementation plan development.
- *Beginning in FY 14:* Preliminary estimates indicate that **\$650,000** will be needed to support the development of comprehensive TMDL Implementation Plans.
- Policy Board to identify funding for FY 14 for a part-time Project Manager and consultant support services to develop a comprehensive Reservoirs TMDL Implementation Plan including data compilation, desktop analyses, field assessments, and report preparation.

### **TAC Recommendations**

1. **Of the preceding options, in light of the Key Issues (see Section III below), the TAC recommends Option 2 as a reasonable approach to assessing current programs and progress in loads reductions prior to evaluating the need for and optimal timing of developing comprehensive TMDL implementation plans.**

2. **The TAC considers partnerships with the MDA and the MDE to be important to the success of developing and implementing a plan to address the Patuxent Reservoirs TMDLs. Currently, the MDA is providing active staff representation on the TAC. In the past, the MDE was also represented on the TAC, but has not participated in recent years. Because of this the TAC also recommends that the Policy Board request that the MDE renew its partnership with the TAC for developing any TMDL Implementation Plans for the Patuxent Reservoirs, including any interim data tracking and assessments to evaluate the need for and optimal timing of TMDL implementation plans development. The MDE is key to providing technical review and validation of the assumptions made while developing the implementation plans and any recommendations from the Plans for achieving water quality standards. Direct participation by the MDE is particularly key for the MS4 jurisdictions who must submit implementation plans to meet waste-load allocations assigned for the TMDL.**

## **Discussion of Key Issues, Options, and Potential Consequences**

### **III. Key Issues**

**Two major factors to consider in evaluating options and timelines for actions related to reducing pollutants to the Patuxent Reservoirs are the separate TMDL requirements that have been established for the Chesapeake Bay and the Reservoirs.**

#### Chesapeake Bay TMDLs and Watershed Implementation Plan (WIP)

- State required by U.S. Environmental Protection Agency (EPA) to implement nitrogen, phosphorus, and sediment load reductions for:
  - Urban land (wastewater treatment plants and stormwater management systems)
  - Non-urban land (agriculture and septic systems)
- Local jurisdictions will move forward with loads reductions for MS4 permit areas as required to meet local TMDLs.
- Currently, the State is still developing an approach for addressing loads attributed to septic systems (note that septic systems are not a pollutant source of concern for the reservoirs TMDLs).
- Maryland Department of Agriculture (MDA) and local Soil Conservation Districts (SCDs) will work with the farm community to implement reductions on agricultural lands for the non-urban loads. For the agricultural portion of the Bay WIP, BMPs will be largely funded through government cost-share programs. The Maryland and Federal agricultural cost-share programs are expected to cover 87.5% and 75% of BMP costs respectively. If shown to be effective in realizing non-urban load reduction targets, then adequate cost-share funding from the State and Federal government may become available for implementing practices to achieve any additional loads reductions needed for local TMDLs such as those needed to meet reservoir water quality standards.
- EPA has indicated that states will need to assure that total loads reductions are achieved, which could result in increasing loads reductions required from the regulated sources to balance lack of progress from the non-regulated sources..

#### Patuxent Reservoirs TMDLs

- Approved by EPA in 2008.
- Specify needed phosphorus reductions in Rocky Gorge, and needed phosphorus and sediment reductions in Triadelphia.

- Reductions are allocated among urban and non-urban sources.
- Pollutant loads reductions to achieve water quality standards in the Reservoirs are much greater than those required for the Patuxent River to meet Bay Restoration goals.
- Montgomery, Howard, and Prince George’s Counties must develop and begin to implement pollutant load reductions for urban (MS4) lands within one year after MS4 permit issuance.
- The MS4 Permit does not include a deadline for implementing plans and achieving TMDL pollutant loads reductions for the urban lands.
- There is currently no regulatory or programmatic deadline for developing and implementing plans to achieve TMDL pollutant loads reductions for the non-urban lands.
  - Most of the Patuxent Reservoirs Watershed is comprised of non-urban privately-owned land that is not subject to County MS4 regulatory programs.
  - Under the Bay TMDL WIP, the State is committing resources to help landowners implement BMPs to meet the non-urban portion of the Bay TMDLs, and local jurisdictions will be implementing BMPs on urban land. These efforts will reduce phosphorus and sediment loads to the reservoirs, but it is uncertain how far load reductions made under the Bay WIP will go towards meeting the local Reservoirs TMDLs.
  - In addition to the State’s Bay WIP commitments, it is uncertain whether the State will be able to commit adequate resources to help landowners implement the non-urban BMPs that will be necessary to achieve local TMDLs.
  - Local jurisdictions and SCDs currently do not have the staff or other resources to take on the task of implementing the non-MS4 portions of local TMDLs.

Other Key Issues and Considerations

- Bay WIP implementation will result in actions that may reduce phosphorus and sediment loadings to the reservoirs. However, the current tracking system via MAST is countywide--not basin specific. Tracking actions taken in the Patuxent Reservoirs watershed subsequent to the data used to develop the Reservoirs TMDLs, as well as the actions taken to meet the Bay TMDLs, will be very useful in assessing the need for and timing of developing Reservoirs TMDLs Plans.
- The TAC functions in an advisory capacity and with the exception of urban land, which is covered under existing MS4 implementation programs, the Committee lacks the necessary funding, dedicated work programs, and associated staff resources to address TMDL pollutant load reductions for non-urban land including:
  - a. developing TMDL Implementation Plans to cover non-urban land,
  - b. pursuing grant funding that could potentially cover part of the needed funding,
  - c. managing any grants that are obtained, and
  - d. managing a consultant contracted to develop Reservoir TMDL Implementation Plans.

**IV. Details on Options and Potential Consequences**

Below are details on the three options for reducing pollutant loads to the Patuxent Reservoirs. These are based on TAC discussions and information contained in the attached Technical Supplement. Potential consequences associated with the three options are also presented.

**Option 1:** Maintain current TAC strategies for the Reservoirs—No Action by the TAC at this time to develop or further assess the need for TMDL Implementation Plans for the Patuxent Reservoirs

- The TAC will continue ongoing efforts to use existing programs and methods for improving the reservoirs, as well as seek ways to use existing resources and staff time to optimize benefits to the Reservoirs.

Potential Costs and Consequences of Option 1:

- This option will require no additional funding or work program additions for TAC agencies.
- The reservoirs will continue to be regarded by MDE and public stakeholders as not meeting State water quality standards.
- The State and private stakeholders may perceive local government as taking limited actions regarding the Reservoirs TMDLs. (Local governments must take action under MS4 permit requirements for the urban lands; as indicated elsewhere, agricultural land agencies will be moving forward to implement BMPs to meet Bay TMDL allocations. These actions will be underway no matter what, but the required reductions from agricultural land under the Bay TMDL will be insufficient to meet the reservoir TMDLs.)
- Risk of negative fallout/publicity and legal challenges from environmental groups for not making progress on loads reductions.
- If insufficient actions are taken by local jurisdictions and responsible parties to address and/or meet the TMDLs, the State could require increased loads reductions from other permitted sources to make up the difference. In the reservoirs watershed, this could result in MS4 permit requirements for additional retrofits on developed land.
- Water treatment costs may increase.
- Increased sedimentation in the Triadelphia Reservoir may result in loss of long-term storage capacity and need for costly increased dredging of sediment.

**Option 2:** Continue current TAC strategies, but pursue interim data tracking and assessments to evaluate the need for and optimal timing of TMDL implementation plan development, and report periodically to the Policy Board on TAC TMDL-related findings.

In addition to continuing the TAC’s ongoing efforts, under this option the TAC will:

- Track and report to the Policy Board periodically on pollutant load reductions resulting from:
  - Implementing the MS4 permit requirements for Patuxent Reservoirs watershed pollutant load reductions
  - Implementing agricultural best management practices
  - Changes in land use

These data should be available from the various agencies that are planning and implementing the proposed actions. Pollutant load reductions realized under these different efforts will go at least some of the way toward meeting the local TMDL allocations to the reservoirs.

- Determine reservoir pollutant load reductions since 2003, and land use changes since 1997 (end of the TMDL study period, and land use data used in developing the TMDLs, respectively).
- Report periodically on the results of Washington Suburban Sanitary Commission’s (WSSC’s) bathymetric studies of the reservoirs and the implications the data have regarding the loss of capacity over time due to sedimentation.
- Report periodically on the results of WSSC’s water quality monitoring of the reservoirs, as well as any light it may shed on the status of the reservoirs with regard to meeting MDE water quality standards. Assessing the data in terms of Use standards for the reservoirs will require involvement by MDE.

- Assess the effectiveness of reservoir water quality monitoring in documenting the effect of watershed changes on water quality. If the results of the WSSC water monitoring data indicate that additional monitoring of the reservoir and its tributaries is needed, the TAC will assess this need and make appropriate recommendations to the Policy Board.
- The TAC will periodically report on MDA's and the SCD's experience and progress in implementing BMPs on non-urban land in the reservoirs watershed, as part of their overall efforts to meet the Bay WIP. If shown to be effective in realizing non-urban load reduction targets, and adequate cost-share funding from the State and Federal government becomes available for implementing local TMDLs, this process could be useful in the future for developing TMDL implementation plans for the reservoirs.
- The TAC will continue to evaluate and report to the Policy Board each year on the health of the reservoirs and efforts to improve it, and in light of future developments, will periodically assess the need for moving ahead with creating TMDL implementation plans for the Patuxent reservoirs.
- Additional Staff and/or TAC agency Work Program Adjustments
  - Hire new part-time staff person

**Potential Costs and Consequences of Option 2:**

- This option will require additional funding to accomplish the proposed additional watershed and reservoir water quality data tracking and assessments.
  - a. Provide funding in FY14 for a part-time staff person to track and assess data collected and actions taken since the TMDLs were developed.
    - i. Estimated cost of \$70,000 for one year
    - ii. Part-time staff person position funding options:
      - 1. Contributions from TAC Agencies through a Cost-Share Agreement
    - iii. Designate one TAC partner agency as the host agency for the part-time technical staff person
- Although the reservoirs will continue to be regarded by MDE and public stakeholders as not meeting State water quality standards, there will be less risk of the State and private stakeholders perceiving local government as taking no action regarding the Reservoirs TMDLs.
- Less risk of negative fallout/publicity and legal challenges from environmental groups for not making progress for loads reductions.
- Less risk that the State could require increased loads reductions from urban sources to make up for a lack of reductions from non-urban sources. This could result in MS4 permit requirements for additional retrofits on developed land.
- Possibility of a future finding of the reservoirs meeting water quality standards as a result of additional data and assessment of actions planned under other programs.
- If it is determined that TMDL implementation plans are still needed, the findings of the interim strategy may decrease the cost of TMDL plan development and implementation.
- Based on lessons learned through Bay WIP agricultural BMP implementation, the TAC will be in a better position to oversee the incorporation of the non-urban Bay WIP process, with potential additional modifications, into future TMDL implementation plans that may be developed for the reservoirs.
- This option will give Howard and Prince George's Counties time to finish developing and begin implementing their MS4 Permits. In particular, this will clarify the MS4 situation in Howard County and allow a better determination of the portion of the reservoirs watershed in the County that will be covered under the Permit.
- The Montgomery and Howard SCDs are currently working with the farm community to implement BMPs on agricultural land. The Howard SCD is also conducting an inventory of agricultural BMPs to identify practices not covered by State and Federal cost share funds and to identify additional BMP



opportunities. Option 2 would provide more time to collect data on these programs, which may help to clarify the efforts needed to address the non-MS4 portions of the TMDLs.

- This Option would also allow time to determine if State and/or Federal cost-share funding for the necessary agricultural BMPs (similar to the Bay WIP funding commitments—see Section III Key Issues), will become available. Without similar funding levels, Reservoirs TMDL Plans will not have a reasonable assurance of implementation.

### **Option 3:** Move forward with developing Patuxent Reservoirs TMDL Implementation Plans

In addition to continuing the TAC’s ongoing efforts, under this option the TAC will:

1. Continue current TAC strategies over the next fiscal year but focus on interim data tracking and assessments needed to support TMDL implementation plan development.
2. Hire consultants to develop Reservoir TMDL Implementation Plans and for plan development project management. The TAC can function as an oversight and stakeholder outreach coordination committee for the project.
  - a. Provide funding in FY14 for a part-time consultant to apply for and manage any grants and manage a consultant contract to develop Patuxent Reservoirs TMDL Implementation Plans.
    - i. Estimate cost of \$70,000 for one year
    - ii. Consultant Position Funding Options:
      1. Contributions from TAC agencies through a cost-share agreement
    - iii. Designate one TAC partner agency as the host agency for the part-time consultant plan development project manager
  - b. Provide funding in FY14 for a consultant to develop the Reservoirs TMDL Implementation Plans.
    - i. Cost Estimate for Plan Development:
      1. The TAC estimates that the cost for developing comprehensive Reservoir TMDL Implementation Plans will be \$577,000.
      2. This estimate assumes that the TMDL implementation planning for urban land will be handled and funded under existing or future Montgomery, Howard and Prince George’s County MS4 Permit programs. (See Technical Supplement for cost estimate analysis.)
      3. The implementation plans for the MS4 permit areas will be developed separately, but these plans will be incorporated into the comprehensive TMDL implementation plans.
    - ii. Plan Development Funding Options
      1. Contributions from TAC Agencies through a Cost-Share Agreement
      2. A relatively small portion of the cost of developing the implementation plans may be obtained through grants (see c.ii below.)
  - c. The TAC will advise the Policy Board about an appropriate timeline and potential funding sources for implementation:
    - i. Identify the desired timeline for implementation and coordinate with Montgomery County Department of Environmental Protection (DEP), Howard County Department of Public Works (DPW) and Prince George’s County Department of Environmental Resources on MS4 timelines.
    - ii. Consider grant funding options (e.g. Chesapeake Bay Trust Watershed Assistance Grants, which could provide \$35K per watershed plan). Grants are limited and

competitive, and can only provide a small portion of the funds needed to develop implementation plans for a watershed the size of the Reservoirs watershed (about 10%). Grants also require in-kind matching, which would be covered by allocating funds for consultants to manage the project and develop the plans.

#### Potential Costs and Consequences of Option 3:

- This option will incur the greatest additional funding and potential TAC agency work program modifications.
  - \$650,000 needed for the development of TMDL Implementation Plans for the Reservoirs, and to hire a part-time contract employee to manage grants and contract to develop the Plans.
- Actions under this option would precede the opportunity to assess:
  - Trends shown by the WSSC water monitoring data quality,
  - Benefits to the reservoirs realized under the Bay WIP,
  - The non-urban land implementation strategy to be developed under the Bay WIP, and
  - The implications of these on the need for and/or timing of TMDL implementation plans.
- Minimal risk of the State and private stakeholders perceiving local government as taking no action regarding the Reservoirs TMDLs.
- Minimal risk of negative fallout/publicity and legal challenges from environmental groups for not making progress for loads reductions.
- If implementation of Reservoir TMDL plans moves forward in a timely manner, there is minimal risk of State requiring increased loads reductions from other permitted sources to make up the difference, such as additional retrofits on developed land.
- No assurance that any implementation actions proposed in the Plans for non-urban land would be fully cost-share funded by State and/or Federal programs, or would be undertaken to a significant degree by private landowners and farmers if State or Federal funding is not adequate.
- This option assumes there will be ongoing costs for implementing BMPs identified in the Reservoirs TMDL Implementation Plans; not merely a one-time cost to prepare Plans but a fiscal commitment over many years.

# Technical Supplement for Policy Board Briefing Paper

August 28, 2012

## 1.) What Comprehensive TMDL Implementation Plans Will Provide that the TAC Cannot Provide with Current Resources

### 1. Comprehensive TMDL Implementation Plans will provide the following Key Elements for Achieving the Patuxent Reservoirs TMDLs:

- a. Detailed Goals and Objectives
- b. Sub-watershed Characterizations
- c. Comprehensive asset inventory
- d. Asset gap analysis
- e. Pollutant Load (by source) and Load reduction Analyses
- f. Subwatershed, Strategic Action, and BMP prioritization
- g. Detailed Action Strategies broken out by Goal, Objective, Benefit, Timeline, Performance Measures, Cost/Resources Needed, and Responsible Parties
  - i. Protection/Restoration Actions
    1. Reservoir
    2. Stream
    3. Forest and other Terrestrial Habitat
    4. Agricultural Practices
    5. Large Lot
  - ii. Education/Stewardship Activities
  - iii. Monitoring Activities (existing and recommended)
  - iv. Funding Activities
  - v. Tracking/Reporting Activities
- h. 2-year milestones to full implementation
- i. Strategies and recommendations for assuring Plan implementation
  - i. Public Land
  - ii. Private Land
- j. Grant options and strategies to maximize grant funding
- k. Additional data needed to implement the plan, and how to obtain it
- l. MS4 Permit TMDL implementation plans will be integrated with non-urban plans to create a comprehensive plan

## 2.) TMDL and Reservoir Watershed Implementation Planning Experience in Baltimore County

### 1. Baltimore County Prettyboy Reservoir TMDL Planning

- a. Like the Patuxent Reservoirs, the Prettyboy Reservoir in Baltimore County has a predominantly rural/agricultural watershed. Baltimore County has developed a TMDL implementation plan for the Prettyboy Reservoir. As a result, it provides a good example of the levels of effort, coordination, and funding that are needed to address TMDLs in similar reservoirs.
- b. The Baltimore City Reservoirs have a technical advisory committee that is very similar to the TAC. When the need to develop and implement watershed plans to address TMDLs arose, this committee determined that, as an advisory committee, it was not the appropriate group to oversee TMDL plan development or implementation.

- c. Each Baltimore County watershed, including the reservoir watersheds, has its own stakeholder Steering Committee to coordinate and oversee the development of TMDL implementation plans. Each committee includes representatives of all stakeholders public and private. Public agency staff participation on TMDL implementation committees is part of their official work programs. After an implementation plan is completed, the Steering Committee becomes the Implementation Committee.
- d. The Baltimore County Department of Environmental Protection and Sustainability (DEPS) is the lead agency on the committees, but it generally requires a consultant to do most of the work of developing watershed implementation plans. DEPS factors in a portion of one work year for each plan developed to cover grant application, grant management, consultant contract management, public outreach, and stakeholder coordination.
- e. As in other jurisdictions, urban land is covered under Baltimore County's MS4 Permit, and DEPS has the primary responsibility for plan implementation in urban areas. The Baltimore SCD has the primary responsibility for plan implementation in agricultural areas.
- f. Implementation for the urban sector is done through the DEPS Capital Program. TMDL plan development and some plan implementation for the agricultural sector so far has been handled through existing cost-share programs. However, it is recognized that the existing cost-share programs are insufficient to fully implement the agriculture portion of the plans. The need for additional SCD staff in Baltimore has also been identified and requested, but has not yet been funded.
- g. Part of the funding needed for developing watershed implementation plans is provided through grants (amount varies based on total area of the watershed, but averages about 20%). Baltimore County provides in-kind grant matching contributions with staff time (see 1.d above).

### **3.) Key Lessons Learned from Local Jurisdictions Implementing TMDLs**

1. The TAC was created to provide technical advice to the Policy Board such as: reviewing/evaluating existing problems and proposed actions that may affect the reservoirs and their watersheds, and recommending pollution control strategies and management measures to control sediment and nutrient loading. As an advisory group, the TAC does not currently have the function or the resources to be in charge of developing or implementing watershed water quality restoration plans. This arrangement is consistent with the pre-TMDL era, but inadequate to deal with the needs of TMDL implementation. The experience in other jurisdictions with the development and implementation of TMDL implementation plans demonstrates the need for a group dedicated to TMDL implementation planning oversight. If funds are available to hire consultants to develop Reservoir TMDL Implementation Plans and for plan development project management, the TAC, as in similar instances in the past, can function as an oversight and stakeholder outreach coordination committee for the project.
2. Funds are needed to hire a part-time consultant to apply for and manage any grants and manage a consultant contract to develop Patuxent Reservoirs TMDL Implementation Plans.
3. Additional funding will be required to hire a consultant to develop the TMDL implementation plans for the Patuxent Reservoirs.
4. Pollutant load reductions from urban land in the Patuxent Reservoirs Watershed will be addressed through county MS4 permits and are expected to be funded by stormwater utility fees, but constitute only a small portion of the pollutant loads that reach the reservoirs. Federal and State cost share funds are available for agricultural BMP implementation, but it is unknown if this funding source will be adequate to cover TMDL implementation in the agricultural sector, which constitutes the major source of pollutants in the Patuxent Reservoirs Watershed. As with the predominantly agricultural Prettyboy

Reservoir watershed in Baltimore County, SCDs will likely need to request additional funding to fulfill their role in attaining local TMDLs.

5. Based on the experience in other jurisdictions, without additional funding for a concerted effort to coordinate and develop watershed implementation plans, significant progress in meeting the Patuxent Reservoirs TMDL will not be possible.

#### 4.) Cost Estimates for Developing Patuxent Reservoir TMDL Implementation Plans

1. Assumptions:

- a. This estimate assumes that the TMDL implementation for urban land will be handled and funded under existing or future MS4 Permit programs for Howard, Montgomery, and Prince George's Counties.
- b. It also assumes that the portion of the Rocky Gorge Reservoir watershed that drains to the upstream Triadelphia Reservoir will be covered by the TMDL plan for the Triadelphia Reservoir. The additional cost of completing the implementation plan for the Rocky Gorge Reservoir will correspond to the amount of additional land that drains to it and not to the Triadelphia Reservoir.
- c. Assumes a part-time consultant to apply for and manage any grants and manage a consultant contract to develop Patuxent Reservoirs TMDL Implementation Plans.

2. Cost Estimate for Developing non-MS4 Permit TMDL Implementation Plans for the Patuxent Reservoirs

- a. Part-time agency staff person or contract employee for one year to apply for and manage grants, manage a consultant contract to develop the plans, and coordinate public outreach and stakeholder input:
  - i. \$70K for one year (Based on local county cost estimates)
- b. Baltimore County provided the following cost estimates that they use to develop watershed implementation plans. These estimates include complying with EPA's Section 319 a-i criteria, as well as targeted field work where needed—especially for verification and to fill in data gaps. Complying with EPA's criteria is included to increase the chance of acquiring grant funding. These estimates do not include grant application, grant management, consultant contract management, public outreach, and stakeholder coordination—which are covered by Baltimore County DEPS staff as part of their work program.
  - i. Rural Land: \$7.50/acre
  - ii. Estimate for developing TMDL implementation plans to cover non-urban land for each Patuxent reservoir watershed based on above rate:
    1. Triadelphia Reservoir: 50,235 acre watershed with 48,889 estimated acres of non-MS4 land = ~ **\$367,000**
    2. Rocky Gorge Reservoir: 33089 acre watershed with 28,007 estimated acres of non-MS4 land = ~ **\$210,000**
    3. TOTAL for both reservoir watersheds: 83,324 acre watershed with 76,896 estimated acres of non-urban land = ~**\$577,000**

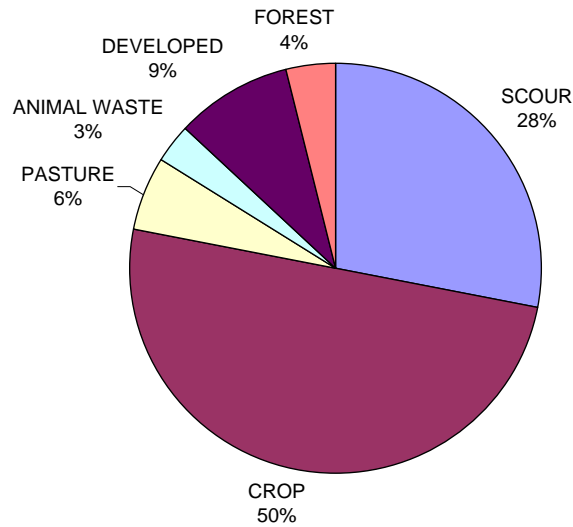


Reservoir-land use	Estimated acres	Baltimore County \$/acre Estimate	Cost Estimates
Triadelphia - urban	1,346	N/A-(covered by MS4)	N/A
Triadelphia - rural	48,889	\$7.50	\$367,000
<b>Triadelphia – TOTAL</b>	<b>50,235</b>		<b>\$367,000</b>
Rocky Gorge – urban	5,082	N/A-(covered by MS4)	N/A
Rocky Gorge – rural	28,007	\$7.50	\$210,000
<b>Rocky Gorge – TOTAL</b>	<b>33,089</b>		<b>\$210,000</b>
<b>Patuxent Reservoirs—GRAND TOTAL</b>	<b>83,324</b>		<b>\$577,000</b>

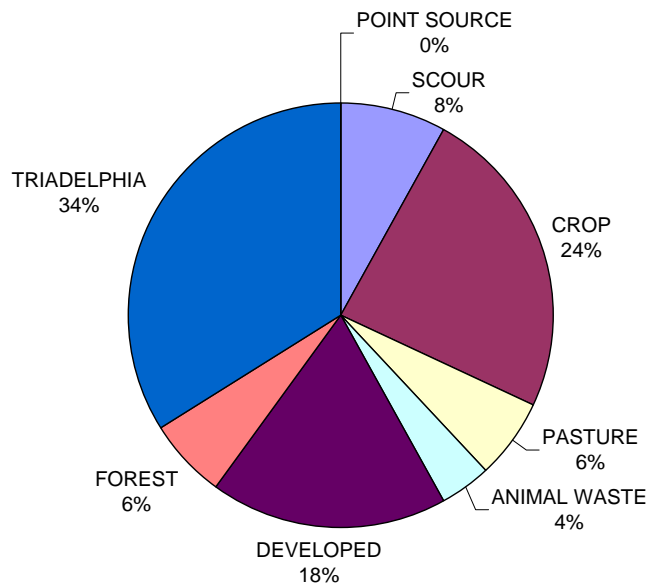
3. Cost Estimate for Developing MS4 Permit TMDL Implementation Plans for the Patuxent Reservoirs  
Montgomery County has estimated a cost of \$200,000 for compiling watershed-specific background data, associated desktop and field analyses, and inventory of likely BMP types and locations for the Montgomery County MS4 permit areas in the Patuxent Reservoirs watershed. Howard and Prince George’s Counties have not yet received their next generation MS4 permits, which are expected to require development of TMDL implementation plans and, consequently, have not yet developed similar cost estimates.
  
4. Cost Estimate for Developing Comprehensive TMDL Implementation Plans for the Patuxent Reservoirs  
The Comprehensive TMDL implementation plan will provide loads by land use at a subwatershed scale to set priorities for BMP implementation for load reductions at that scale. Loads will be divided into urban (MS4) and non-urban (agricultural) components. These subwatershed results will need more detailed analyses to identify BMP types and find specific locations for BMP installation. For urban BMPs this is typically accomplished through evaluating land availability, site opportunities, and property ownership (public or private). In the case of agricultural BMPs, this will be based on existing and future voluntary agricultural conservation plans developed with individual property owners. The costs for determining specific agricultural BMP types and locations to achieve loads reductions are not included in this proposal. However, it is expected that the MS4 Permit TMDL implementation plans will specify urban BMP opportunities and that this information will be incorporated into the Comprehensive TMDL implementation plan.

## 5.) Phosphorus and Sediment Loads to Rocky Gorge and Triadelphia Reservoirs

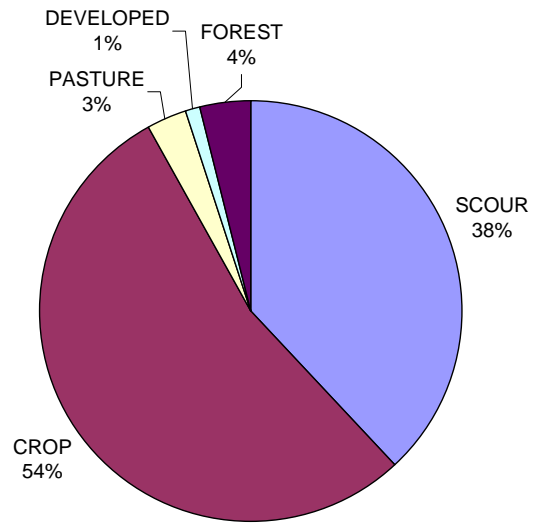
The three pie charts below are from the Rocky Gorge and Triadelphia TMDL documents, and show the relative contributions of phosphorus and sediment from known sources of these pollutants.



Percent Contribution of Sources of Total Phosphorus Loads to Triadelphia Reservoir



Percent Contribution of Sources of Total Phosphorus Loads to Rocky Gorge Reservoir



Percent Contribution of Sources of Sediment Loads to Triadelphia Reservoir



Joshua D. Feldmark..... Howard County  
William E. Barnes .....Howard Soil Conservation District  
Françoise M. Carrier, Esq. ....MD-National Capital Park and Planning Commission  
Robert G. Hoyt ..... Montgomery County  
George E. Lechliden ..... Montgomery Soil Conservation District  
Samuel E. Wynkoop, Jr, Chair ..... Prince George’s County  
Jerry N. Johnson..... Washington Suburban Sanitary Commission

May 3, 2012

Dear Policy Board Member:

The Patuxent Reservoirs Watershed Protection Group’s Technical Advisory Committee (TAC) held its first two meetings of 2012 on January 31<sup>st</sup> and March 29<sup>th</sup>. Here are a few highlights from those meetings for your information.

For the January meeting, the TAC effort focused on preparing for the annual Policy Board meeting.

- The TAC chair passed from Howard Saltzman (Howard County) to myself (Prince George’s County) for 2012. Meo Curtis (Montgomery County) will be the vice-chair for 2012.
- TAC members welcomed Mr. Byron Petrauskas, Patuxent Regional Coordinator, as Maryland Department of Agriculture’s representative to the TAC.
- The TAC prepared brief summaries of three policy issues that were planned for discussion at the annual Policy Board meeting including: funding needs for the Agriculture Cost-Share Program, barriers to TMDL implementation planning, and modifications to the Patuxent Reservoirs Watershed Protection Agreement.

For the March meeting, the TAC discussed revisions that would improve the usefulness of the Patuxent Reservoirs Watershed Agricultural Cost-Share Program. The committee also began discussing what recommendations it could provide for developing a TMDL Implementation Plan as directed by the Policy Board at its annual meeting.

- The TAC will prepare a letter to WSSC and Howard County that shows how historical contributions to the Patuxent Reservoirs Watershed Agricultural Cost-Share Program have benefited water quality.
- TAC members have not yet reached consensus with respect to alternatives needed for the Policy Board to make a decision on whether to proceed with the creation of a multi-jurisdictional TMDL Implementation Plan for the two reservoirs.
- Most TAC members agreed that a central coordinating entity would offer continuity and resources for this process; however, it was not determined what agency or TAC member would serve in this role.
- Initial steps were suggested to begin the development of recommendations for the Policy Board, which will be developed at subsequent meetings and conference calls.
- The TAC discussed forming a workgroup or subcommittee to formulate recommendations for the Policy Board, but because of time restrictions and meeting availability of TAC members, forming a subcommittee will not be possible.

The TAC decided to hold a series of conference calls in addition to normally scheduled meetings to meet the Policy Board’s directive by September 2012.

Sincerely,

Jerry Maldonado, Chair  
Technical Advisory Committee

**Technical Advisory Committee**

*Bert Nixon, HCDH ..... Susan Overstreet, HCDP&Z ..... Howard Saltzman, HCDPW  
Kristal McCormick, HSCD ..... Byron Petrauskas, MDA ..... Vacant, MDE  
Vacant, MDNR ..... Mark Symborski, M-NCPPC ..... Meosotis Curtis, MCDEP  
Vacant, MCDPS..... David Plummer, MSCD..... Ken Clare, PGCDH  
Jerry Maldonado, PGCDER ..... Martin Chandler, WSSC.....*





Joshua D. Feldmark..... Howard County  
William E. Barnes .....Howard Soil Conservation District  
Françoise M. Carrier, Esq. ....MD-National Capital Park and Planning Commission  
Robert G. Hoyt ..... Montgomery County  
George E. Lechliden ..... Montgomery Soil Conservation District  
Samuel E. Wynkoop, Jr, Chair ..... Prince George's County  
Jerry N. Johnson..... Washington Suburban Sanitary Commission

August 8, 2012

Dear Policy Board Member:

The Patuxent Reservoirs Watershed Protection Group's Technical Advisory Committee (TAC) held its third meeting of 2012 on July 9<sup>th</sup>. Prior to this meeting, the TAC formed an ad-hoc work group to prepare draft materials on TMDL implementation plan options for the upcoming meeting with the Policy Board (Fall 2012). Several iterations of a briefing paper and supplemental information have been reviewed and discussed by the work group during three conference calls.

What follows are a few highlights from this meeting for your information.

- Thus far, the TAC has drafted three options for the Policy Board's decision. It is considering a recommendation for one of these options.
- The TAC's Briefing Paper and Supplement will need to be finalized by early September to allow time for TAC members to brief their respective Policy Board members on the recommendations well before the Policy Board meeting. This should allow Policy Board members to arrive at an opinion on the recommendations ahead of time, and come prepared to make a decision at the Policy Board Meeting.
- Martin Chandler provided a brief update of the study to evaluate how WSSC manages the land it owns surrounding the reservoirs and to make recommendations that would enhance protection of the reservoirs.
  - EA Engineering, Science and Technology is under contract to conduct a Phase 1 study focusing on WSSC land surrounding the Patuxent Reservoirs. A future second phase would expand the focus to the entire watershed; however, the scope and the funding sources for Phase 2 of the project have not been identified.
  - A draft report for Phase 1 is due by the end of October. It is expected to contain recommendations for public access and recreational activities that are consistent with maintaining the reservoirs' water quality for its primary use as a water supply.
- Sandy August informed the TAC that September 29, 2012 has been selected for the Annual Family Campfire. This event will be held at the recreation area of Brighton Dam adjacent to Triadelphia Reservoir. This event is designed to attract families who live within the Patuxent Reservoirs Watershed to a free, fun event with child-oriented activities called a "Watershed Fair" and a classic campfire with marshmallows and s'mores.

WSSC provides these activities along with information to educate the children and their parents about their watershed with the goal that they have a better understanding of where they live in relationship to the river and how they can help to protect the Patuxent Reservoirs.

Sincerely,

Jerry Maldonado, Chair  
Technical Advisory Committee

**Technical Advisory Committee**

*Bert Nixon, HCDH ..... Susan Overstreet, HCDP&Z ..... Howard Saltzman, HCDPW  
Kristal McCormick, HSCD ..... Byron Petrauskas, MDA ..... Vacant, MDE  
Vacant, MDNR ..... Mark Symborski, M-NCPPC ..... Meosotis Curtis, MCDEP  
Vacant, MCDPS..... David Plummer, MSCD..... Ken Clare, PGCDH  
Jerry Maldonado, PGCDER ..... Martin Chandler, WSSC.....*



## Policy Board

Joshua D. Feldmark..... Howard County  
William E. Barnes .....Howard Soil Conservation District  
Françoise M. Carrier, Esq. ....MD-National Capital Park and Planning Commission  
Robert G. Hoyt ..... Montgomery County  
George E. Lechlides..... Montgomery Soil Conservation District  
Adam Ortiz, Chair ..... Prince George's County  
Jerry N. Johnson..... Washington Suburban Sanitary Commission

November 26, 2012

Dear Policy Board Member:

The Patuxent Reservoirs Watershed Protection Group's Technical Advisory Committee (TAC) held its fourth meeting of 2012 on September 6<sup>th</sup>. Prior to this meeting, the TAC finalized the briefing paper and supplemental information on TMDL implementation plan options for our upcoming annual meeting scheduled for December 10<sup>th</sup>. The TAC recommends an interim option (#2) with an estimated cost of \$70,000 to continue progress towards TMDL implementation. I encourage you to review these documents to prepare for our upcoming meeting.

What follows are highlights from the recent TAC meeting for your information.

- Since the TAC meets on a quarterly basis, much of the work for 2012 was accomplished between meetings via conference calls. Due to this limitation, Mark Symborski introduced a generalized strategy for working between meetings using ad-hoc work groups and a series of conference calls. These methods worked well for the TAC in 2012. Once the strategy is finalized, it will be implemented in 2013.
- The TAC reviewed a draft letter and supporting information for the Policy Board that provides justification to continue funding the Patuxent Agricultural Cost-Share Program in Howard County. The draft letter included suggested amendments to improve this program's effectiveness. It will be distributed to you in advance of our annual meeting.
  - The TAC decided that this letter would focus on providing justification to continue funding this cost-share program at the Howard Soil Conservation District (HSCD).
  - Amendments to this cost-share program will be pursued separately. These amendments are needed to improve the program's effectiveness to meet the growing landowner needs expressed by the HSCD and to allow the MSCD to use this niche program fully and more effectively.

Thank you for your continued support of the TAC. I look forward to our Annual Meeting on December 10<sup>th</sup> at 2:00 pm.

Sincerely,

A handwritten signature in blue ink, appearing to read "J. Maldonado", is written over a light blue circular background.

Jerry Maldonado, Chair  
Technical Advisory Committee

---

### Technical Advisory Committee

Bert Nixon, HCDH ..... Susan Overstreet, HCDP&Z ..... Howard Saltzman, HCDPW  
Kristal McCormick, HSCD ..... Byron Petrauskas, MDA ..... Vacant, MDE  
Vacant, MDNR ..... Mark Symborski, M-NCPPC ..... Meosotis Curtis, MCDEP, Vice Chair  
Vacant, MCDPS..... David Plummer, MSCD..... Ken Clare, PGCDH  
Jerry Maldonado, PGCDER, Chair ..... Martin Chandler, WSSC.....

## Appendix D: Technical Advisory Committee Meeting Agendas and Summaries



## **Patuxent Reservoirs Watershed Protection Group** **Technical Advisory Committee Meeting**

**WSSC (4th floor) Room 4037 \***  
**January 31, 2012**  
**1:30 p.m. – 4:00 p.m.**

### **AGENDA**

#### **Call To Order/Opening Remarks**

Chair – Howard Saltzman

#### **Administrative Business**

(30 minutes)

- |  |                 |
|--|-----------------|
| 1. Approve November 2011 TAC Meeting Summary   | Howard Saltzman |
| 2. Welcome Byron Petrauskas as MDA's TAC representative  | Howard Saltzman |
| 3. Annual Report – status  | Steve Nelson    |
| • Any items for future/planned expenditures table?   |                 |
| 4. Policy Board update for Nov. & Jan. TAC meetings  | Steve Nelson    |
| 5. Annual Meeting – to be held on March 13, 2012 @ 2pm   | Steve Nelson    |
| 6. Action Items accomplished between meetings  | Steve Nelson    |
| 7. Departing remarks from TAC Chair  | Howard Saltzman |
| 8. Transfer of TAC Chair from Howard to Prince George's County & transfer of Vice Chair from Prince George's County to Montgomery County | Jerry Maldonado |

#### **On-Going & New Business**

- |   |                  |
|---|------------------|
| 1. Preparation for Policy Board Meeting                 | All (15 minutes) |
| • Agenda  |                  |
| • Presentation  |                  |
| 2. Briefing papers for Policy Board meeting             | All (45 minutes) |
| • Patuxent Reservoirs Watershed Ag Cost-Share           |                  |
| • Modifications to Agreement                            |                  |
| • Reservoir TMDLs                                       |                  |
| 3. Public Awareness & Stewardship Resources Chart       | All (10 minutes) |
| 4. Action Items to accomplish prior to our next meeting | All (5 minutes)  |

#### **Work Program Updates**

#### **Adjournment**

Chair - Jerry Maldonado

**\* NOTE: Proceed from the elevators towards the IT Customer Support Division. Room 4037 is the largest conference room on the I-95 side of the building. There are white signs identifying both doors to this conference room.**





## Patuxent Reservoirs Watershed Protection Group Technical Advisory Committee

### Meeting Summary

January 31, 2012

#### Members Present

Martin Chandler (WSSC), Ken Clare (PGCDH), Meo Curtis (MCDEP), Jerry Maldonado (PGDER), Kristal McCormick (HSCD), Bert Nixon (HCDH), Susan Overstreet (HCDPZ), Byron Petrauskas (MDA), David Plummer (MSCD), Howard Saltzman (HCDPW), Mark Symborski (MNCPPC),

#### Participants

Kim Knox (WSSC), Angela Morales (HCDPW), Steve Nelson (WSSC), Debbie Weller (PGCDER)

The meeting was called to order at 1:45 pm by Chair Howard Saltzman.

#### Administrative Business

1. There were no stated objections to the November meeting summary; consequently, it was considered final.
2. Howard welcomed Byron Petrauskas as the MD Department of Agriculture's (MDA) representative to the TAC replacing Dwight Dotterer. Byron serves as the Patuxent Area Coordinator for MDA. He mentioned that his background included developing TMDL implementation plans in Virginia.
3. Steve briefed attendees on the status of the TAC's Annual Report
  - The draft was completed and distributed.
  - Comments were received and will be incorporated into a revised draft for the upcoming annual meeting.
  - Additional comments or items for the Planned Expenditures Table are still welcomed.
  - Next steps include:
    - Sending revised draft (along with briefing summaries) to Policy Board by February 28
    - Completing a draft of the Technical Supplement
4. Steve announced that an update of the last two TAC meetings will be sent to the Policy Board.
5. The date for the Annual Meeting with the Policy Board will be **Tuesday, March 13, 2012 @ 2pm**
6. Steve provided an update to the action items from the last meeting.  
**Action Item 1:** Steve will distribute a Doodle poll to select a meeting date and time for the Policy Board and a January TAC meeting. The Policy Board meeting was scheduled for March 13, 2012, and the TAC meeting was scheduled for January 31, 2012.

**Action Item 2:** *TAC members will draft brief summaries of policy issues that may be considered by the Policy Board at the next meeting. Steve will then compile these summaries and distribute them along with a draft agenda to the TAC, Policy Board Chair, and Policy Board.* TAC members drafted and reviewed four brief summaries including: funding needs for the Patuxent Agriculture Cost-Share Program, barriers to TMDL implementation planning, modifications to the Patuxent Reservoirs Watershed Protection Group Agreement (the Agreement), and the TAC's authority to review and comment on issues that may conflict with reservoir protection goals, but may not occur in all counties. These summaries have yet to be finalized; consequently, they were not distributed to the Policy Board.

**Action Item 3:** *Steve will send to the TAC an email supporting the opinion that the TAC already possesses authority to consider watershed-wide issues that potentially conflict with reservoir and watershed protection goals. A similar issue was discussed at length during a conference call held between TAC meetings, but no opinion was sent to TAC.*

**Action Item 4:** *To continue progress toward revising the Priority Resource Charts, Steve will e-mail a final draft of the Public Awareness Chart and a first draft of the Reservoir/Water Supply Chart for TAC review.* Steve distributed the final draft of the Public Awareness Chart, but not the first draft for the Reservoir/Water Supply Chart.

**Action Item 5:** *Steve will distribute information about the **Urban Waters Small Grants** funding opportunity to the TAC.* Steve sent grant information to the TAC.

7. Prior to transferring the TAC Chairmanship to Jerry Maldonado, Howard reflected on his term as chair.
  - Howard acknowledged the constraints of the TAC's limited authority and the limited budget and staff time as reasons for a lack of progress towards achieving all reservoir watershed projection goals.
  - Howard recommended that the TAC should focus on what it can accomplish with those constraints, but recognized that it will be a difficult process.
  
8. Jerry Maldonado accepted the TAC chair and shared his perspectives related to the TAC.
  - Jerry acknowledged that Prince George's County role in the TAC has been limited.
  - Jerry considers the reservoirs as assets and worthy of protection.
  - He commented that the county governments already have the structure in place for accomplishing reservoir protection goals (e.g., meeting the TMDLs for the reservoirs).
  - He acknowledged that currently there are many issues competing for limited resources in Prince George's County (Bay TMDL, MS4 permit) that potentially affect the reservoirs.
  - TAC should recognize its limitations (e.g., Agreement language, infrequent meetings, no funding source) and work within them.
  - He suggested that public outreach should focus specifically on issues that help address TMDLs. The goal would be to seek direction from the Policy Board to authorize the TAC for the expansion of the outreach program that would target landowners to help address current

TMDL impairments affecting the reservoirs. The Policy Board could provide support through funding and staff resources as needed.

- Water quality data and resulting trends analyses from WSSC's reservoir monitoring efforts are valuable and may serve to inform Policy Board decision makers to commit funds to further protect the reservoirs.

### On-Going & New Business

#### 1. Policy Board Meeting Preparation

- TAC members discussed the meeting format and order of events. Most agreed that someone from the TAC should introduce each briefing summary prior to Policy Board discussion. Meo Curtis suggested that WSSC present the briefing on the TMDLs considering the recent letter from WSSC's General Manager to the Counties requesting greater participation to address TMDLs.
- TAC members reviewed a draft agenda distributed at the meeting and modified the order of the meeting to be:
  - Welcome, Introductions and Opening Remarks
  - 2011 Accomplishments (short summary)
  - Funding needs for Patuxent Reservoirs Agriculture Cost-Share Program
  - TMDL Implementation Planning – opportunities and impediments to progress
  - Future of Policy Board & Suggested Revisions to the Agreement
  - Transfer of Policy Board Chair and Closing Remarks
- The invitation and briefing summaries will be sent to Mr. Feldmark (Howard County) who serves as the current Policy Board Chair prior to distribution to the remaining Policy Board members.

#### 2. Revised briefings were distributed for three issues proposed for the upcoming annual meeting. General notes for each briefing are provided.

- TMDL Implementation Plan – opportunities and impediments to progress.
  - TAC members discussed requesting direction from the Policy Board in the following statement: "Executives of the signatory agencies to the PRWPG Agreement are asked to make a commitment to cooperatively support the development of a TMDL Implementation Plan. This support would include committing the necessary technical staff resources and funding to develop an initial plan."
  - Another complementary request for direction would be that "each signatory agency focus outreach activities in the watershed that target phosphorus and sediment reductions."
  - A key question: Who, among the signatory agencies to the Agreement, would manage this project to develop a plan?

- An overall implementation plan should:
  - Be specific to meet goals,
  - Specify cooperative agreement to address TMDLs,
  - Account for monitoring as feedback,
  - Incorporate existing watershed management plans (e.g. Hawlings River, Cherry Creek), and
  - Incorporate milestones as interim goals.
- Patuxent Reservoirs Watershed Agricultural Cost-Share program at HSCD
  - The exact amount of the total request for funds was unknown.
  - Kristal McCormick said that Bob Ensor estimated that \$50,000 annually would meet the current requests for assistance. Kristal added that Bob recommended the Agricultural MOU and/or the Cost-Share Agreement should be updated to reflect needed changes to increase its usefulness (e.g., increasing the limit per property owner from \$5,000 to \$10,000 to account for rising material costs).
  - David Plummer provided a historical accounting of MSCD's use of the Patuxent Reservoirs Watershed Agricultural Cost share program since 2003. Funds remaining in this account are \$44,845.93. David noted that two agreements are awaiting approval for a total of \$10,000. There is a renewed effort to use this funding source at MSCD because of the recent hire of an Equine Specialist assigned by MDA to the region that includes Montgomery County.
  - Susan Overstreet asked if WSSC would contribute to this funding source as was done in the past.
- Modifications to Agreement
  - TAC members selected two issues to present to the Policy Board at the annual meeting.
    1. Arrange meetings with the Policy Board, as needed, when substantive policy issues related to reservoir watershed protection are ready for Policy Board discussion and decision rather than holding the Board meetings on an annual basis, as currently required.
    2. Remove all State agencies (DNR, MDA and MDE) from TAC membership, in part because invited representatives have ceased to attend or alternate members have not been identified after the retirement of previous designees.

### 3. Action Items to accomplish prior to the next TAC meeting

**Action Item 1:** Incorporate revisions to the briefing summaries and distribute to TAC (Steve).

**Action Item 2:** Incorporate revisions to the 2011 Annual Report and distribute to TAC (Steve).

**Action Item 3:** Distribute a revised agenda for upcoming annual meeting (Steve).

**Action Item 4:** Provide an exact amount that HSCD is requesting from Howard County (Kristal).

### Adjournment

Jerry adjourned the meeting at about 4:00 pm.

This summary was prepared by Steve Nelson.

**PPRS Report**

Year	Date	Payee	Chck	Payment	Deposit	Balance
Year 2012		Opening				<b>44845.93</b>
Year 2011	* Date	Payee	Chck	Payment	Deposit	Balance
	7-Oct	Howard SCD	1146	7000		51845.93
Year 2008	Date	Payee	Chck	Payment	Deposit	Balance
		Opening				54310.93
Year 2003		3-Jun Robert Butts-Cost Share Patuxent	978	2465		51845.93
The opening balance for the PPRS Account was \$54,310.93						54310.93

**SUMMARY**

Original amount (2003)	54310.93
Robert Butts pymnt (2008)	2465
Howard SCD pymnt (2011)	7000
	<b>44845.93</b>

The ending amount matches the amount in the account.

2 Current pending agreements = \$10,000





**Patuxent Reservoirs Watershed Protection Group**  
**Technical Advisory Committee Meeting**

**WSSC - Chesapeake Room (Room 6104)**

**March 29, 2012**

**1:30 p.m. – 3:30 p.m.**

**AGENDA**

**Call To Order/Opening Remarks**

Chair – Jerry Maldonado

**Administrative Business**

(5 minutes)

1. Approve January 2012 TAC meeting summary
2. Action Items accomplished between meetings

Jerry Maldonado  
Steve Nelson

**On-Going & New Business**

1. Summarize Policy Board Directives given to TAC Jerry Maldonado (10 min.)
  - Reservoirs' TMDL Implementation Planning (September Deadline)
    - i. Create a Work Plan for developing a Reservoirs TMDL Implementation Plan
      1. Scope of Work including: Responsible Parties, Tasks, Deliverables, Schedule, Budget and Resources needed (e.g. staff time, contract employees, consultants, etc.)
  - Patuxent Reservoirs Watershed Ag Cost-Share
    - i. Revise Cost-Share Agreement language to improve its use by both SCDs
    - ii. Provide justification of program's effectiveness for WSSC
2. Patuxent Reservoirs Watershed Ag Cost-Share All (15 minutes)
  - Discuss justification needed for continued WSSC funding
3. Reservoirs' TMDL Implementation Planning All (60 minutes)
  - What level of effort is required to create the Work Plan?
  - What needs to happen between now and September?
  - Function independently or seek help from other organizations?
  - Frequency and format of meetings needed to meet deadline
    - i. Create a TMDL Workgroup?
    - ii. If appropriate, determine first steps needed prior to first meeting
4. Study of WSSC-owned land surrounding reservoirs Martin Chandler (5 min.)
5. Action Items to accomplish prior to our next meeting All (5 minutes)

**Adjournment**

Jerry Maldonado



## Patuxent Reservoirs Watershed Protection Group Technical Advisory Committee

### Meeting Summary

March 29, 2012

#### Members Present

Martin Chandler (WSSC), Meo Curtis (MCDEP), Jerry Maldonado (PGDER), Kristal McCormick (HSCD), Bert Nixon (HCDH), Susan Overstreet (HCDPZ), Byron Petrauskas (MDA), David Plummer (MSCD), Howard Saltzman (HCDPW), Mark Symborski (MNCPPC),

#### Participants

Kim Knox (WSSC), Angela Morales (HCDPW), Steve Nelson (WSSC)

The meeting was called to order at 1:35 pm by Chair Jerry Maldonado.

#### Administrative Business

1. There were no stated objections to the January meeting summary; consequently, it was considered final.
2. Steve provided an update to the action items from the last meeting.
  - Action Item 1:** *Revisions were incorporated to the briefing summaries and distributed.*
  - Action Item 2:** *Revisions were incorporated to the 2011 Annual Report and distributed.*
  - Action Item 3:** *Revisions were incorporated to Annual Meeting agenda*
  - Action Item 4:** *Amount of funding requested by HSCD for Patuxent Ag Cost-Share Program was provided.*

#### On-Going & New Business

1. Jerry Maldonado summarized the direction the TAC received during the Policy Board Annual Meeting regarding the development of a work plan to guide how a TMDL implementation plan would be funded. Jerry then requested an open discussion for the best course of action to create a work plan in the six months remaining.
  - Jerry began by asking Howard Saltzman how Howard County plans to address its TMDLs via pending MS4 NPDES permit condition.
    - Howard commented that the initial steps will include dividing the county into major watersheds and defining the MS4 permit areas.
  - Jerry stated that tracking progress (from all land uses) towards implementation is needed, but an overall tracking mechanism does not exist for the Patuxent Reservoirs Watershed. He mentioned an on-line tracking mechanism.
    - Byron Petrauskas mentioned that MDA already has a tracking mechanism [Conservation Tracker], and Meo Curtis also said that they have to track progress as a MS4 permit condition

- Meo suggested a different approach where each pollution source would be identified and its load reduction tracked separately; this information could then be combined into an overall system.
- Jerry suggested using a similar approach to tracking progress as is used by the Metropolitan Washington Council of Governments for the Anacostia watershed restoration activities
  - Meo countered that it would be a duplication of effort to track progress in addition to what Montgomery County is already doing and a costly exercise to pay MWCOG.
- Kristal McCormick mentioned that showing progress from agricultural practices spatially would not be possible due to privacy issues with landowners.
- Mark asked if each sector (e.g., agriculture, MS4) could track their own progress and then aggregate their progress into a larger database to address the total plan.
- Jerry summarized the discussion saying that tracking progress is essential to successfully implementing a TMDL plan and that a consultant may be needed to assist with this effort.

## 2. Patuxent Reservoirs Watershed Agricultural Cost-Share Program

There was some discussion of WSSC's possible contribution to the Patuxent Cost-Share program to supplement what Howard County will contribute.

- Martin stated that there was likely some confusion during the Policy Board meeting because Jim Caldwell (Howard County) presented another opportunity (horse manure management pilot study) to WSSC's GM and Chief Engineer on the same day.
- Martin reiterated the WSSC Chief Engineer's wishes for a summary of the benefits realized from this Cost-Share program.
  - The TAC decided to create a separate letter for WSSC and Howard County (David and Kristal to draft) to accompany proposed modifications to the agricultural Memorandum of Understanding (Ag MOU) with estimates of what benefits were realized for the funds spent.
- HSCD has requested \$50,000 annually, and under the terms of the current Ag MOU, WSSC would pay 1/3 of this amount.
- Jerry asked about what are the desired changes to the Ag MOU
  - David Plummer asked what the Districts were allowed to do under the Ag MOU and which actions required an amendment to the Ag MOU. He asked if both SCDs could modify the actual Agreement signed by the landowners.
    - David mentioned that manure storage was already in MSCD's Agreement as an acceptable practice, which was one modification suggested by Bob Ensor.
    - Historically each amendment to the Ag MOU attempted to increase its flexibility and usefulness, and it was the TAC's consensus to do the same during this attempt to allow maximum use for both districts.
      - David commented that another reason for the limited use of the Patuxent Cost—Share Program in MSCD was due to more lucrative programs that exist for larger farming operations.

- The TAC discussed that the suggestion to double the lifetime cap from \$5,000 to \$10,000 was reasonable considering increasing costs since 1998 and the emphasis on the Bay restoration
  - David asked if the cap increase required signatures from all agencies. Susan read from the Ag MOU, which states that only WSSC and Howard and Montgomery Counties needed to ratify amendments related to funding.
- After some discussion, it was uncertain what approvals would be required for technical modifications to remove restrictions to increase its flexibility (e.g. stream-side, stream on property, etc.)
- Kristal volunteered to 1) estimate pollutant load reductions resulting from BMPs installed in Howard County from the Patuxent Cost-Share program, and 2) draft a list of requested modifications to the Agricultural MOU and the Patuxent Cost-Share Agreement documents.

### 3. Reservoirs' TMDL Implementation Planning

The TAC discussed what level of effort would be required to create the work plan. Many members recommended that there needs to be a staff person dedicated to compiling the needed information, and some thought that WSSC should provide that staff person.

- Meo mentioned an important component of the work plan should be to determine what has been accomplished already toward meeting TMDL load reductions.
- The TAC expressed different opinions of how detailed the work plan should be to present to the Policy Board.
  - Byron asked what the TAC was hoping to provide to the Policy Board, and he recommended that many of the details should be addressed within the TMDL Implementation Plan itself.
  - Meo added that the work plan should identify and provide a status of each component (by land use type) needed to develop the work plan to determine how to address the plan.
- The TAC discussed if the work plan could be accomplished by the TAC.
  - Martin commented that there's not enough time to hire a consultant and asked if the TAC could complete the work plan.
  - It was suggested that the Interim Watershed Management Plan (Versar 2009) could be a starting point for beginning the work plan (inventory of historical assessments and adequacy of GIS data gathered).
  - Mark suggested a first step could be to determine what data are missing and then use the Versar report, together with other existing data sources, to determine what's needed to close the gaps.
  - Jerry asked if the goal of completing a work plan should be scaled back from what the Policy Board directed the TAC to accomplish considering the time remaining and TAC member work loads. He also commented that someone or some agency would need to compile the plan, and it was suggested that WSSC's staff liaison coordinate this activity for the TAC.

The TAC then discussed what needs to happen between April and when the TAC presents the work plan to the Policy Board.

- Martin suggested that holding two more TAC meetings will not provide enough time to complete the task and suggested that a workgroup may need to be formed.
  - The TAC was not in agreement whether to form a workgroup that would meet more frequently to complete the work plan.
  - Meo suggested an alternative to forming a workgroup was to follow the strategy developed for the Montgomery County MS4 permit and focus on the Patuxent Reservoirs Watershed as a first step, and then return to the Versar report to determine what is missing

The TAC discussed if it should function independently or seek help from other organizations.

- The TAC was not in agreement as to what specifically is needed for the Policy Board to make a decision whether to proceed with the creation of a TMDL Implementation Plan.
  - Some members thought that all that was needed was a simplified plan to include an estimate of financial and staff resources based on similar plans that have been developed elsewhere.
  - Mark Symborski suggested that if the TAC cannot provide what the Policy Board has directed, the TAC could develop an incremental work plan for the Policy Board to get a certain degree of improvement (e.g., provide a cost estimate for a consultant to create a work plan)
    - Martin added that a cost estimate for the consultant would still need to identify 1) TAC agency contributions to hire the consultant, 2) procurement process, and 3) which agency would manage the project. Jerry suggested WSSC could manage the consultant with TAC oversight and funding from all TAC agencies.
    - Meo suggested using a cost per square mile of watershed as another method to estimate TMDL Implementation Plan costs.
    - Byron asked what the final product from the consultant would look like considering the current priorities of MS4 Stormwater permits and the WIP process.
- Martin mentioned that a central agency/entity would offer continuity to this process.
  - Jerry suggested the TAC could benefit from the existing organization within the Metropolitan Washington Council of Governments (MWWCOG), although Howard County is not a member of MWWCOG.
  - Mark asked if a potential 'fatal flaw' to developing a TMDL implementation plan for the Patuxent Reservoirs was the lack of funding for additional staff resources to provide the essential centralized coordination needed to assure plan development. There was general agreement that this is indeed a potential fatal flaw. In the ensuing discussion the following points were brought up. TAC agencies already have full work programs and cannot take on the additional workload needed to develop a plan. Because of this critical shortcoming, unless the PRWPG can commit to additional funding to provide the staff resources needed to assure project coordination and continuity, then developing and implementing a plan to achieve the reservoirs TMDLs will probably



- have to be put off indefinitely. Under the current status quo, although some reservoir improvements could be realized, meeting the reservoir TMDLs is unlikely.
- Mark suggested three steps to moving forward.
    1. Identify the central agency to host the plan development project manager/coordinator (WSSC?), and the funding and timeframe needed for the position. Use other funding mechanisms as examples for similar efforts (e.g., Baltimore Metropolitan Council, ICPRB) to coordinate and/or provide continuity on progress to meeting reservoir TMDLs (equal benefit/equal participation of TAC agencies).
    2. Provide a cost estimate to develop a TMDL implementation plan (based on similar plans developed elsewhere) and the rationale used (e.g., cost/square mile). Suggest a funding mechanism (e.g. MOU among all PRWPG members). Inform the Policy Board of what would be accomplished by developing the plan that the TAC agencies cannot currently achieve with existing resources (e.g., creation of a comprehensive implementation plan for achieving the reservoir TMDLs including cost estimates and resources needed to implement each plan element, grant strategies and management framework, detailed project management framework, additional data needed to implement the plan and how to obtain it, comprehensive asset inventory, asset gap analysis, subwatershed and BMP prioritization, detailed BMP implementation strategies and framework, 2-year milestones to full implementation, implementation accountability and reporting framework, tracking mechanisms for progress in load reductions, etc.).
    3. Summarize the cost of doing nothing to address TMDLs (i.e., continued reservoir water quality deterioration, increased water treatment costs, increased sediment deposition in reservoirs and decreased water storage, higher overall stakeholder costs with little chance of achieving the TMDLs if each County continues to do things separately without coordination, etc.)

The TAC then discussed the frequency and format of future meetings or conference calls needed to meet the September deadline that included whether to form a TMDL Workgroup.

- Jerry asked if monthly meetings were needed to complete the assigned task for September.
- The TAC was not in agreement to hold monthly meetings to accomplish its assignment.
  - Meo suggested that we need specific benchmarks to accomplish for these meetings or calls
- The TAC was not in agreement to form a workgroup to complete a work plan for the Policy Board.

As the meeting concluded it was suggested that the TAC next have a conference call (in May) to establish how to proceed.

#### 4. Action Items to accomplish prior to our next meeting.

**Action Item 1:** Coordinate an initial conference call (Steve).

**Action Item 2:** Investigate other TMDL plans (Byron).

**Action Item 3:** Draft a memo from the TAC to WSSC and Howard County that provides justification for continuing to fund the Patuxent Ag Cost-Share Program (David, Kristal, Steve)

Adjournment

Jerry adjourned the meeting at about 4:05 pm.

This summary was prepared by Steve Nelson.



## **Patuxent Reservoirs Watershed Protection Group** **Technical Advisory Committee Meeting**

**WSSC - (4th floor) Room 4037 \***

**July 9, 2012**

**1:30 p.m. – 4:00 p.m.**

### **AGENDA**

#### **Call To Order/Opening Remarks**

Chair – Jerry Maldonado

#### **Administrative Business**

(10 minutes)

1. Approve March 2012 TAC Meeting Summary  
Jerry Maldonado
2. Review Action Items Accomplished Between Meetings  
Steve Nelson
3. Review Tasks & Time Line for Upcoming Annual Meeting  
Steve Nelson

#### **On-Going & New Business**

1. Study of WSSC's Water Quality Buffer Land  
Martin Chandler (10 min.)
2. Review and Edit TMDL Implementation Briefing Paper for Policy Board  
All (60 minutes)
3. Determine if Option 2 can be accomplished with existing resources  
All (15 minutes)
  - If not, what specific, additional resources and/or work program adjustments, and for which agencies will be needed?
4. Approve Briefing Paper (if all the edits discussed at the meeting cannot be incorporated at the meeting, at least approve subject to the remaining edits discussed being incorporated subsequent to the meeting)  
All (15 minutes)
5. Review and Approve Supplemental Information for Briefing Paper  
All (30 minutes)
6. Action Items to accomplish prior to our next meeting  
All (5 minutes)

#### **Adjournment**

Jerry Maldonado

**\* Proceed from the elevators towards the IT Customer Support Division. Room 4037 is the largest conference room on the I-95 side of the building. There are white signs above both doors to this conference room.**



## Patuxent Reservoirs Watershed Protection Group Technical Advisory Committee

### Meeting Summary

July 9, 2012

#### Members Present\*

Martin Chandler (WSSC), Meo Curtis (MCDEP), Jerry Maldonado (PGDER), Susan Overstreet (HCDPZ), Byron Petrauskas (MDA), Howard Saltzman (HCDPW), Mark Symborski (MNCPPC)

\*Less than eight members present needed for a quorum to achieve a consensus

#### Participants

Sandy August (WSSC), Kim Knox (WSSC), Angela Morales (HCDPW), Steve Nelson (WSSC)

The meeting was called to order at about 1:45 pm by Chair Jerry Maldonado.

#### Administrative Business

1. There were no stated objections to the March 2012 meeting summary; consequently, it was considered final.
2. Steve provided an update to the action items from the last meeting.  
**Action Item 1:** *Three conference calls were coordinated and held since the March 2012 meeting.*  
**Action Item 2:** *Byron investigated other TMDL plans from Virginia that have watersheds similar to the Patuxent Reservoirs. A firm called MapTech developed a TMDL implementation plan (WIP) for a watershed near Richmond, VA that cost about \$200k. Partial funding was used to assist with the plan development via VA DEQ/DCR using EPA 319 funds. The state of VA requires the development of a TMDL implementation plan once the TMDL has been established and assigned (Water Quality Monitoring, Information, and Restoration Act (WQMIRA) 1997).*  
**Action Item 3:** *Steve mentioned that Kristal McCormick is drafting a letter for the TAC that provides justification for WSSC and Howard County to continue funding the Patuxent Reservoirs Watershed Ag Cost-Share Program.*
3. The TAC reviewed the time line leading up to the next meeting with the Policy Board. Mark mentioned that the MC Planning Board will need a briefing on the TAC's recommendations in early October, prior to the Policy Board meeting in late October or early November.
4. The TAC's Policy Board Briefing Paper and Supplement will need to be finalized by early September to allow time for TAC members to brief their respective Policy Board members on the recommendations well before the Policy Board meeting. This will allow Policy Board members to arrive at an opinion on the recommendations ahead of time, and come prepared to make a decision at the Policy Board Meeting.

## On-Going & New Business

1. Martin Chandler provided a brief update of the watershed protection study funded by WSSC. He distributed two handouts including: the Draft Framework for Patuxent Reservoirs Watershed Protection Study and the PowerPoint presentation shown at two public outreach meetings in June.
  - Consultant (EA Engineering, Science and Technology) is under contract to conduct a Phase 1 study focusing on WSSC land surrounding the Patuxent Reservoirs; a future second phase would expand the focus to the entire watershed. However, the scope and the funding sources for Phase 2 of the project have not been identified.
  - The total cost for the Phase I study is \$224,320. Currently, about 50% of the work has been billed (field work, GIS mapping, and public meetings).
  - GIS mapping focused on 1) recreation areas, and 2) trail system (i.e., location, condition, use);
  - EA has conducted most of the field work, noting trail and recreation area conditions, and stream channel degradation.
  - Two public outreach meetings were held recently to solicit input from the public. There is an opportunity to submit written comments directly to the consultant until 19 July 2012.
  - A draft report is due by the end of October. The report is expected to contain recommendations for public access and recreational activities that are compatible with maintaining the reservoirs' water quality for its primary use as a public drinking water supply.
2. The TAC then discussed the draft Policy Board TMDL Implementation Briefing Paper and made certain changes to the document, which were incorporated interactively into a revised draft during the meeting. The TAC did not complete its review of this paper, but agreed that subsequent conference calls would provide the opportunity for a work group to complete the review of this document and the supplemental information.

The members present were in general agreement that 1) presenting three options and a TAC recommendation to the Policy Board is a reasonable approach given the time remaining until the next annual meeting, and 2) the TAC will recommend Option 2 (assessing progress toward Reservoir TMDL load reduction goals while waiting for Bay TMDL implementation to proceed), which will require an interim contract position to support gathering and analyzing the needed information to assess the need for and optimal timing of TMDL implementation plans for the Reservoirs.

3. Sandy August informed the TAC that September 29, 2012 has been selected for the Annual Family Campfire. She added that the same format as 2011 for this educational event will be followed, but the location will be moved back to the recreational area at Brighton Dam.
4. Action Items to accomplish prior to our next meeting.

**Action Item 1:** Revise briefing paper with edits made during the July meeting (Mark, Steve, Martin).

**Action Item 2:** Coordinate another conference call to occur around the first week of August to review and provide comment to revised briefing paper and supplemental information (Steve).

**Action Item 3:** Choose date for the next TAC meeting to occur the last week of August (preferably) or the first week of September (Steve).

**Action Item 4:** Include figures 5-7 from the Reservoirs TMDL documents in the supplemental information to the Policy Board (Mark, Steve).

**Action Item 5:** Complete a memo from the TAC to WSSC and Howard County that provides justification for continuing to fund the Patuxent Ag Cost-Share Program (Kristal, David, Steve)

Adjournment

Jerry adjourned the meeting at about 4:25 pm.

This summary was prepared by Steve Nelson.



13 March 2012

## **Draft Framework for Patuxent Reservoirs Watershed Protection Study** *Enhancing Management of WSSC's Reservoir Water Quality Buffer Property*

**Purpose** – Provide WSSC with Recommendations for Managing its Owned Reservoir Buffer Property

### **Compilation and Review of Available Information**

- WSSC water quality reports
- WSSC regulations
- Source Water Assessment
- Forest Conservation Plan
- Existing relevant information from industry, other public agencies
- Maps and material from Trail Riders of Today (TROT), hunters, boaters, fishermen and other recreation users
- GIS mapping from WSSC
- GIS mapping from other sources (soils, slopes etc.)
- Reservoir buffer property management practices utilized by other water utilities (local, regional or national)

### **Stakeholder Outreach**

- Introductory Meetings
  - Separate meetings for Triadelphia Reservoir and Rocky Gorge Reservoir stakeholders
  - Present work plan to stakeholders
  - Solicit feedback from stakeholders
- Follow-up Meetings
  - Present findings of study

### **Reservoir Buffer Assessment**

- Desktop Analysis (GIS mapping and evaluations)
  - Erosion potential
  - Public access points
  - Trails and access roads (visible on maps and air photos)
  - Sensitive environmental features
- Field Reconnaissance Studies
  - Document potential water quality impacts
  - Ground truth desktop GIS mapping data
  - Assess safety and suitability of access points
  - WSSC access road assessment
  - Fishing trail assessment
  - Horseback riding trail assessment
  - Document signs of erosion or sections of roads and trails with high erosion potential

### **Findings and Recommendations**

- Recommendations for potential modifications to WSSC reservoir buffer management
- Best practices for source water protection and management of reservoir buffer lands
  - Practices for reducing nutrients, sediment, toxics, and bacteria impacts to help meet water quality goals and TMDLs
  - Specific recommendations for WSSC land management of its buffer property
  - Policies for allowing and/or controlling public access to the property
  - Security considerations
  - Recreational uses, as appropriate
  - Improvements needed at designated public access points (ballpark scope and cost implications)
  - Suitable trail locations and improvements (ballpark scope and cost implications)

**DATE:** 9 July 2012

**FROM:** Mike Powell, EA

**TO:** Martin Chandler, WSSC

**SUBJECT:** Progress Report -Patuxent Reservoirs Watershed Impact Study

## **Work Completed**

### Stakeholder Meetings

- Successfully held stakeholder meetings on June 18 & 19 for the Rocky Gorge and Triadelphia reservoirs, respectively.
- Over 90 stakeholders attended the Rocky Gorge meeting, and over 30 stakeholders presented oral comments.
- There were approximately 50 stakeholders at the Triadelphia meeting, and there were about 20 speakers.
- As of July 9, EA has received approximately 50 written comments from stakeholders.
- Reviewed written transcripts from the June 18 & 19 stakeholder meetings, and has provided WSSC with comments and corrections.

### Trail and Access Road Surveys

- Completed the survey of recreation areas, and shoreline fishing trails as part of the Phase 1A task order.
- Completed the survey of the Rocky Gorge fire access roads, and interior trails.
- Completed the mapping of the Triadelphia fire access roads and interior trails.
- Currently post-processing GPS data, field datasheets, and geocoded pictures from the trails survey.

### GIS Mapping

- Developed maps of erosion potential, and shoreline trails that were surveyed in Phase 1A.
- Developed maps of the fire access road and interior trails that have been surveyed during Phase 1A and Phase 1B.

### Report and Recommendations

- EA is investigating how other reservoir regional and national municipalities manage reservoir buffer property.

## **Work Scheduled**

- CEM expects to complete summaries of the stakeholder meetings during the second week of July.
- Expect to complete all field work by mid-July.
- Expect to complete the processing of field survey data by the end of July.
- The project is proceeding on schedule, and EA expects to issue a draft report of findings and recommendations before the end of October 2012.



## **Patuxent Reservoirs Watershed Protection Group** **Technical Advisory Committee Meeting**

**WSSC - (Chesapeake Room) Room 6104**

**September 6, 2012**

**1:30 p.m. – 3:30 p.m.**

### **AGENDA**

#### **Call To Order/Opening Remarks**

Chair – Jerry Maldonado

#### **Administrative Business**

(15 minutes)

1. Approve July 2012 TAC Meeting Summary
2. Review Action Items Accomplished Between Meetings
3. Various Topics
  - 2011 Annual Report Technical Supplement
  - 2012 Annual Report
  - Annual meeting date
4. TAC General Strategy

Jerry Maldonado  
Steve Nelson  
Steve Nelson

Mark Symborski

#### **On-Going & New Business**

1. Patuxent Agricultural Cost-share program
  - Review letter and supporting information
  - Determine author (TAC, HSCD)
  - Determine target audience (full Policy Board, just WSSC and HC)
2. Upcoming Annual meeting with the Policy Board
  - Discuss agenda and presentation
  - TAC member feedback on any responses from their PB reps to the TAC recommendations
  - Action Items to accomplish prior to the Annual Meeting
3. Work Program Updates
  - Family Campfire Update
  - 2011 Water Quality Summary of Reservoirs
4. Action Items to accomplish prior to our next TAC meeting

All (30 minutes)

All (30 minutes)

Sandy August (5 min.)  
Martin, Steve (15 min.)  
All (5 minutes)

#### **Adjournment**

Jerry Maldonado



## Patuxent Reservoirs Watershed Protection Group Technical Advisory Committee

### Meeting Summary

September 6, 2012

#### Members Present\*

Martin Chandler (WSSC), Meo Curtis (MCDEP), Jerry Maldonado (PGDER), Kristal McCormick (HSCD), Bert Nixon (HCDH), Susan Overstreet (HCDPZ), Byron Petrauskas (MDA), Howard Saltzman (HCDPW), Mark Symborski (MNCPPC)

\*Sufficient number present needed for a quorum to achieve a consensus

#### Participants

Kim Knox (WSSC), Angela Morales (HCDPW), Steve Nelson (WSSC)

The meeting was called to order at about 1:35 pm by Chair Jerry Maldonado.

#### Administrative Business

1. There were four corrections added to the draft meeting summary. There were no stated objections to the July 2012 meeting summary with the four corrections; consequently, it was considered final.
2. Steve provided an update to the action items from the last meeting.  
**Action Item 1:** *The TAC made edits to the briefing paper, and it was finalized.*  
**Action Item 2:** *Two conference calls were coordinated and held since the July 2012 meeting.*  
**Action Item 3:** *The TAC meeting was scheduled and held.*  
**Action Item 4:** *The TMDL figures were added to the supplemental document to the briefing paper.*  
**Action Item 5:** *Kristal and Bob Ensor drafted a justification letter to continue the Patuxent Agricultural Cost-share Program.*
3. Jerry mentioned that there may be a need to hold one additional conference call to respond to comments from the Policy Board after their TAC agency representative briefs them about the documents.
4. Steve commented that the Technical Supplement to the 2011 Annual Report was completed, but it still needs to be placed on WSSC's internet site for distribution.
5. Beginning in late September, Steve will ask TAC members and participants for information to include in the 2012 Annual Report.
6. After some discussion of using the next quarterly letter to the Policy Board (PB) updating them on the TAC's progress, it was agreed that the letter should contain a reminder to encourage the PB to review the TMDL briefing documents to prepare for the upcoming annual meeting.

7. Mark mentioned that since the TAC meets on a quarterly basis, much of the work needs to be accomplished between meetings. Due to this limitation, he introduced an idea of a generalized strategy for working between meetings using an ad-hoc work group and a series of conference calls.
- Meo suggested that someone write a summary of the TAC progress in 2012 including what worked well and how to improve on what did not. Mark volunteered to draft this summary from 2012 TAC activities.
  - Mark suggested that, if accepted by the TAC, it would be timely to implement this strategy beginning in 2013. A conference call may be needed to approve it by the end of 2012.

### On-Going & New Business

#### 1. Patuxent Agricultural Cost-share program

- The TAC discussed whether the separate but related issues of justifying the continuation of the program and recommending amendments to improve its effectiveness should be included in the same letter for the upcoming annual meeting with the PB.
- Suggested changes to the justification letter:
  - For comparison, it would be useful to include pollutant removal costs (per #) for other BMP types (e.g., storm water management, wastewater treatment). Howard mentioned that a recent MDE presentation may include pollutant removal and cost estimates.
  - The letter will address funding for FY 14 only.
- Suggested changes to the supporting tabular information:
  - Indicate that the work described was accomplished by the HSCD alone
  - Include load reductions expressed on a #/BMP unit basis
- After much discussion the TAC agreed that:
  1. The letter should originate from the TAC.
  2. The letter should focus on providing justification for continuing to fund this cost-share program at the HSCD, but exclude the amendments to improve its effectiveness.
  3. The letter should be distributed to the full Policy Board (PB) not just WSSC and Howard County Government.
- Discussion on suggested amendments included:
  - Amendments to the Patuxent Agricultural Memorandum of Understanding (MOU) and Cost-share Agreement are needed to meet a growing demand by landowners expressed by the HSCD and to allow the MSCD to use this niche program fully and more effectively.
  - The 2nd bullet in the draft letter (i.e., eliminating the requirement that BMPs must be located within 300' of a stream) may need to be included since the MOU is referenced as a 'stream-side' program.
  - The 3rd bullet in the draft letter (i.e., adding agricultural waste storage structures to the list of approved BMPs) need not be included as an amendment to the MOU since individual BMPs are identified in the cost-share agreement developed by the Districts.

- Jerry commented that the TAC should inform the PB that an amendment is planned.
  - Byron suggested that during the amendment process the TAC should revisit the intent of this cost-share program
- Jerry added that if this small program has been successful [at the HSCD] in significantly reducing pollutant loads, why not expand this program?
- The process and steps to amend the MOU and agreement still need to be established considering past amendments to the MOU.

## 2. Upcoming annual meeting with the Policy Board

- A PowerPoint presentation should be created to include the following:
  - a. TMDL Implementation
    - i. Pros/cons of each option presented to the PB in the briefing paper
    - ii. Relate TMDL implementation to other related State regulations
    - iii. Request PB decision based on TAC recommendations
  - b. Justification to continue the Patuxent Agricultural Cost-share Program
- Mark reiterated that it is vital for TAC members to discuss the briefing with their PB member before the annual meeting since funds are being requested beginning in FY14.

## 3. Work Program Updates

- Kim Knox announced that the Annual Family Campfire has been scheduled for Saturday September 29th beginning at 4:30 pm. This event will be held at Brighton Dam. Kim asked for a volunteer from the TAC to speak briefly at 6:30 pm.
- Meo recognized Kim and about 175 students from the University of Maryland who removed a large section of Kudzu near Scotts Cove recreation area. Meo and Susan volunteered to distribute future announcements for clean-up events.
- Martin provided a summary of 2011 water quality conditions in the Patuxent Reservoirs.
  - Martin emphasized that this summary report is not a trends report, but simply describes various aspects of water quality including: dissolved oxygen, chlorophyll-a, phosphorus, and a summary index indicating the trophic state of each reservoir.
  - Once finalized, this report will be distributed to the TAC

## 4. Action Items to accomplish prior to our next meeting.

**Action Item 1:** Choose a date for the upcoming PB meeting (Steve).

**Action Item 2:** Distribute draft work strategy for TAC (Mark, Steve).

**Action Item 3:** Modify the draft justification letter and supporting tables for the PB (Kristal, Steve)

**Action Item 4:** Create a PowerPoint presentation for the upcoming annual meeting for TAC review and comment (Steve, TAC)

**Action Item 5:** Send the 2011 Summary of Reservoir Water Quality Conditions to the TAC (Steve)

## Adjournment

Jerry adjourned the meeting at about 3:55 pm.

This summary was prepared by Steve Nelson.



Cost-Share : Nutrient Reduction Justification

Best Management Practice (BMP)	Amt.	Unit	Maintenance Life	Annual Nitrogen (N) Reduction (#)	Annual Phosphorus (P) Reduction (#)	Reduction of N over maintenance life (#)	Reduction of P over maintenance life (#)
*Stream Protection: Watering Trough Stream Crossing Stream Fencing	5271	l.f.	10 years	35,790.0	4,796.6	357,901.0	47,966.0
Grassed Waterway	0.7	ac.	10 years	9.6	0.3	95.5	2.5
Riparian Forest Buffer	1.75	ac.	15 years	27.3	2.2	409.2	32.3
Total Reductions				35,826.9	4,799.1	358,405.7	48,000.8

\* Stream protection is based on the linear feet of stream that is protected by the listed practices.

\* Nutrient removal assumptions based on Chesapeake Bay Program’s Phase 4.3 Watershed Model - BMP nutrient reductions  
\$35,199.02 cost-share funds paid out for the above BMPs.

The following table of nutrient reductions costs are based on the money paid out of the cost-share program and does not include any costs incurred by the landowners.

	Nitrogen (cost per pound of N reduction)	Phosphorus (cost / pound of P reduction)
One-time nutrient reduction cost	\$0.46 / # Nitrogen	\$3.94 / # of Phosphorus
Amortized nutrient reduction cost*	\$0.05 / # Nitrogen	\$0.43 / # of Phosphorus

\* Nutrient reduction costs have been amortized over the maintenance life of the BMPs

## Appendix E: Patuxent Reservoirs Watershed Protection Agreement

## PATUXENT RESERVOIRS WATERSHED PROTECTION AGREEMENT

*This agreement is effective this 29th day of October, 1996, by and among Howard County, Montgomery County, Prince George's County (a body corporate and politic), the Howard Soil Conservation District (HSCD), the Montgomery Soil Conservation District (MSCD), the Maryland National Capital Park and Planning Commission (M-NCPPC), and the Washington Suburban Sanitary Commission (WSSC)*

*WHEREAS, the parties agree that the Patuxent Reservoirs Watershed includes the Triadelphia and T Howard Duckett (Rocky Gorge) reservoirs, the contributing Patuxent River and its tributary streams and associated groundwater resources,*

*WHEREAS, the parties to the agreement recognize the importance of protecting the long-term biological, physical, and chemical integrity of the Patuxent Reservoirs Watershed;*

*WHEREAS, the parties recognize the work of the Patuxent Reservoirs Protection Group (PRPG) as valid and recognize that an interjurisdictional partnership is needed to promote reservoir watershed protection strategies.*

*WHEREAS the parties desire to develop and implement a multi-barrier watershed management approach to assure the integrity of a continued supply of high quality potable water at reasonable cost.*

*WHEREAS, the parties acknowledge the importance of integrating a Patuxent Reservoir Protection Strategy with the Patuxent Tributary Strategy to address the goals of the 1987 Chesapeake Bay Agreement; and*

*WHEREAS, the parties desire that the benefits of and responsibilities for necessary actions be shared equitably by all parties.*

**NOW, THEREFORE, BE IT RESOLVED,** that in consideration of the covenants and agreements set forth hereinafter, it is mutually covenanted and agreed as follows:

## ARTICLE I - ESTABLISHMENT OF A PATUXENT RESERVOIR PROTECTION STRATEGY

The need for establishing a protection strategy as outlined in the interim report Developing a Patuxent Reservoir Protection Strategy (March 1995) is hereby recognized by the parties. The parties hereby agree to cooperate with each other regarding initiatives that will help fulfill recommendations of the "Interim Action Plan for Reservoir Protection" and to the "Development of a Long-Term Reservoir Protection Program" as outlined in that report.

## ARTICLE II - POLICY BOARD

### A Members

The Policy Board ("Board") shall be composed of the County Executives for Howard County, Montgomery County, and Prince George's County; the Chairpersons for the Howard Soil Conservation District (HSCD) and the Montgomery Soil Conservation District (MSCD) Boards, the Executive Director for the Maryland-National Capital Park and Planning Commission (M-NCPPC); and the General Manager of the Washington Suburban Sanitary Commission. Any Board member may designate an alternate by written notification to other Board members.

The Policy Board may change its membership by consensus among existing members.

### B Functions

The Board shall meet yearly to receive the Technical Advisory Committee's annual report and to review ongoing activities and the results of studies targeted toward protecting the reservoirs and their resources. The Board may meet more frequently to consider issues and make recommendations as necessary. The Board shall encourage cooperative arrangements to ensure that all parties participate actively in programs and policies that maintain and improve water quality and habitat throughout the reservoirs watershed.

The Board shall consider:

- 1 Review and evaluation of information from the Technical Advisory Committee;
- 2 Strategies to address present or anticipated problems;
- 3 Work activities among parties for the coming year; and
- 4 Other matters found necessary or desirable for reservoir watershed protection.

The Board will agree by consensus on all recommendations, determinations, and proposals. The Board's decisions shall be advisory only, and shall not be binding on any political subdivision or agency participating in this agreement. An annual summary of the Board's decisions shall be prepared and made available to the public.

C Chairpersons

The County Executives of Howard County, Montgomery County, and Prince George's County will serve successive terms as the Chairperson. The Chairperson will serve from July 1st of one year to June 30th of the following year. The County Executives will agree upon the order of the succession.

ARTICLE III - TECHNICAL ADVISORY COMMITTEE

A Members

The Technical Advisory Committee ("Committee") consists of representatives from: (1) Howard County: Department of Health; Department of Planning and Zoning; and Department of Public Works; (2) Montgomery County: Department of Environmental Protection and Department of Permitting Services; (3) Prince George's County: Department of Environmental Resources and Department of Health; (4) the M-NCPPC; (5) the HSCD; (6) the MSCD; (7) State of Maryland: Department of Agriculture; Department of the Environment; and Department of Natural Resources; and (8) the WSSC.

The Committee will meet at least once per year to review the results of that year's work efforts, to recommend a work plan for the next year, and to prepare the annual report to the Board. The Committee will meet more frequently as needed to review, evaluate, and make recommendations on reservoir-related concerns.

The Committee may propose standing subcommittees or ad hoc workgroups as needed to evaluate specific reservoir protection issues. The subcommittees and workgroups may request representatives from agencies or groups that are not permanent members of the Committee to participate.

B Functions

1. The Committee or designated workgroups shall meet as necessary to periodically review and evaluate existing problems and proposed actions which may affect the reservoirs and the watersheds, including the following functions:
  - a. Providing sources of high quality raw water as a regional water supply system;
  - b. Providing habitats to support high quality aquatic and riparian communities;
  - c. Providing desirable places for environmental enhancement and wildlife habitat; and
  - d. Providing aesthetic, recreational, and other beneficial uses.

2. The Committee or designated workgroups will work cooperatively to expeditiously recommend balanced pollution control strategies and management measures to
  - a. Control sediment loadings to the reservoirs;
  - b. Minimize the levels of nutrients and pollutants entering the reservoirs and the tributary streams;
  - c. Prevent degradation of the high quality, interconnected surface and groundwater resources of the tributary streams and throughout the watershed; and
  - d. Encourage stewardship of the reservoirs watershed and resources
3. The Committee may develop and formulate public education and outreach initiatives, urban forestry, and agricultural best management practices; innovative site designs; alternative on-site disposal systems, natural resource management strategies; stream restoration projects; and any other measures that protect and enhance water quality or habitat throughout the watershed.

Whenever major reservoir water quality problems must be addressed, the Committee shall evaluate alternative solutions and the cost-effectiveness of these measures in making recommendations for reservoir resource protection.
4. The Committee shall prepare a written report to submit to the Board for its annual meeting. *The Annual Report shall include:*
  - a. Results of reviews and evaluations on reservoir protection issues;
  - b. Progress on programs and practices being implemented by the parties to protect the reservoirs and their resources;
  - c. Recommendations on strategies to encourage reservoir resource protection; and
  - d. A recommended work plan for the coming year.

C Chairpersons of Committee and Workgroups

The Committee and its workgroups shall agree by consensus on the method of selection and terms for Chairpersons to lead all meetings.



#### ARTICLE IV - MODIFICATIONS AND AMENDMENTS

##### A Membership of the Policy Board

Any changes in Policy Board membership, except designation of an alternate, shall initiate the process for modification of this agreement. The modified agreement must indicate the change(s) in Policy Board composition and shall become effective after being signed by all members of the modified Policy Board.

##### B Modification or Amendment of the Agreement

This agreement may be modified or amended by consensus of the Policy Board members. The Policy Board shall consider changes in membership or any other modifications and amendments of this agreement at its annual meeting.

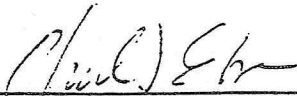
Changes based on consensus among Policy Board members will initiate the process for agreement modification. The modified or amended agreement will not become effective until signed by all members of the Policy Board as defined in the modified or amended agreement.

#### ARTICLE V - RIGHTS OF PARTIES NOT TO BE ABROGATED


A. Nothing in this agreement shall limit or abrogate any right or rights delegated to any of the governments or agencies which are parties to this Agreement by acts of the General Assembly of the State of Maryland.

B. Each party hereto agrees that participation by any party to the agreement may be terminated by that party with three months written notice to the other parties of the agreement.

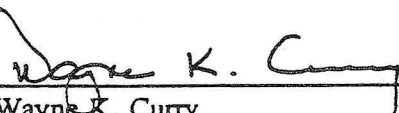
PATUXENT RESERVOIRS WATERSHED PROTECTION AGREEMENT

  
\_\_\_\_\_  
Charles I. Ecker  
County Executive  
Howard County


10/29/96  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Douglas M. Duncan  
County Executive  
Montgomery County

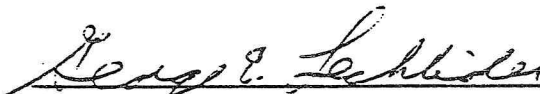
11/6/96  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Wayne K. Curry  
County Executive  
Prince George's County

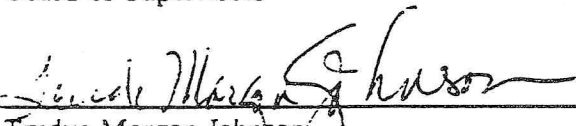
10/29/96  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
William E. Barnes  
Chairman  
Howard Soil Conservation District  
Board of Supervisors


10/29/96  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
George E. Lechliden  
Chairman  
Montgomery Soil Conservation District  
Board of Supervisors

10-29-96  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Trudye Morgan Johnson  
Executive Director  
Maryland-National Capital  
Park and Planning Commission

October 29, 1996  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Cortez A. White  
General Manager  
Washington Suburban Sanitary Commission

10/29/96  
\_\_\_\_\_  
Date

Appendix F: Patuxent Reservoirs Protection Strategy Agricultural MOU  
and Amendments

Patuxent Reservoir Protection Strategy  
Memorandum of Understanding

This memorandum is effective this 1st day of October, 1998, by and among Howard County (HC), Montgomery County (MC), Prince George's County (PGC, a body corporate and politic), the Howard Soil Conservation District (HSCD), the Montgomery Soil Conservation District (MSCD), Maryland-National Capital Park and Planning Commission (M-NCPPC) and the Washington Suburban Sanitary Commission (WSSC).

Whereas, on October 29, 1996, the parties signed the Patuxent Reservoir's Watershed Protection Agreement which recognizes the importance of protecting the long term biological, physical and chemical integrity of the Patuxent Reservoir's Watersheds;

Whereas, the parties desire to develop and implement a multi-barrier watershed management approach to assure the integrity of a continued supply of high quality potable water at reasonable cost;

Whereas, the parties recognize the economic benefit of agriculture within the reservoir's watersheds;

Whereas, on October 6, 1997, the parties adopted the 1997 Annual Report and Action Plan which established two agricultural initiatives;

Whereas, the first initiative will accelerate the volunteer agricultural conservation planning outreach through the two soil conservation districts, and the second initiative is the development of a local cost-share program for the installation of stream-side best management practices;

Now, Therefore, subject to available funding and future appropriations and in consideration of the covenants and agreements set forth hereinafter, the parties mutually covenant and agree as follows:

Article I - Funding

A. General

An amount not to exceed \$100,000 will be provided by equal contributions of \$33,333 from WSSC, Howard and Montgomery Counties for the initial year of the program. Funding thereafter is contingent upon the success of the program as determined by WSSC, Howard and Montgomery Counties and their respective budgetary constraints. The amounts required by HSCD and MSCD will be equally divided within their respective districts between the planner position initiative and the stream-side best management practices initiative. Any surplus funds will be either: 1) redirected to the funding account for the other initiative; 2) equally disbursed to WSSC, Howard and Montgomery Counties; or 3) rolled over into the next fiscal year as determined by

consensus of the Technical Advisory Committee as established in the Patuxent Reservoir's Watershed Protection Agreement.

The initial contribution of \$100,000 is to be made on July 1, 1998, (or thereafter), with payment of \$75,000 to MSCD and \$25,000 to HSCD.

B. Stream-Side Cost-Share Program

The need for development of stream-side cost-share programs will be funded through an annual \$50,000 contribution (subject to future appropriations) equally in the amount of \$16,666 from the WSSC, Howard and Montgomery Counties, respectively. This annual \$50,000 appropriation will be divided between the two districts as mutually agreed upon by a vote of the two district boards (HSCD and MSCD, majority vote of combined board members). Howard and Montgomery Counties' funding shall be spent within their respective county boundaries.

C. Conservation Planner Position

The need for accelerated volunteer conservation planning assistance to those agricultural operations within the reservoir watersheds will be funded through an annual \$50,000 contribution (subject to future appropriations) equally in the amount of \$16,666 from WSSC, Howard and Montgomery Counties, respectively.

Article II - Conservation Planner

A. Administration

The \$50,000 annual contribution for the planner position will be paid to MSCD. MSCD will in turn hire a contractual conservation planner in consultation with the HSCD. MSCD will administer the position. The position will be limited to serving the agricultural community as defined by the HSCD's and MSCD's respective Agricultural Unit Inventory within the reservoir watersheds. The planner will contact landowners on the importance of soil conservation and water quality plans. The planner will also prepare conservation plans for the landowners in the HSCD and MSCD respectively and assist with the five-year implementation of those plans which are to be based upon volunteer participation and public outreach efforts. The planner will answer administratively to the MSCD Board of Supervisors or their designee, except that when the planner is working within the HSCD, the supervision of the planner's workload priorities will be provided by the HSCD Board of Supervisors or their designee.

B. Work Plans

The accelerated conservation planning assistance will support the respective five-year work plans for the landowners of the two districts. In working with an anticipated customer base that consists of farmettes and horse operations as well as the remaining traditional agricultural operations, extensive public education will be a top priority in selling the importance of conservation plans.

Direct mailings, personal visits, community meetings, tour and brochures are examples of those educational tools that may be used.

Every landowner within the reservoir watersheds that has been identified by the HSCD and MSCD as needing to be educated will be contacted. Over the five years the goal is to contact 471 landowners. These contacts will be opportunities to educate landowners on how practicing conservation will aid in improving water quality within the two reservoirs. It's estimated that this outreach effort will result in the following number of five-year work plans:

<u>Fiscal Year</u>	<u>Landowners Contacted</u>	<u>Plans Prepared</u>	<u>Acreage of Plans Prepared</u>
1999	40	24	1368
2000	90	54	3078
2001	114	68	3876
2002	114	68	3876
2003	<u>113</u>	<u>67</u>	<u>3819</u>
	471	281	16017

Article III - Cost-Share Program

HSCD and MSCD will each develop a local stream-side cost-share program that will supplement the current state and federal agricultural cost-share programs that currently pay up to 87-1/2% of installation costs of stream-side best management practices. The programs to be developed by HSCD and MSCD are intended to reimburse applicants for up to 12-1/2% of their out-of-pocket costs for the installation of stream-side best management practices. The combined cost-share between the current federal and state programs and the program to be developed by HSCD and MSCD are not to exceed 100% of the installation costs. The amount of the applicants' reimbursement will be based upon the HSCD and MSCD respective adopted cost-share flat rates. All eligible applicants will be required to install their best management practices in accordance with USDA Natural Resources Conservation Service standards and specifications.

Article IV - Accomplishments

The HSCD and MSCD shall prepare a joint report of annual accomplishments documenting the progress of the two agricultural initiatives and provide an accounting of appropriations/expenditures.



The report will be forwarded to the Patuxent Technical Advisory Committee for inclusion in their Annual Report.


The report will be prepared on a July 1 - June 30 fiscal year cycle. The report shall be submitted to the Technical Advisory Committee by September 1 of each year.

In addition, the HSCD and MSCD will present updates during the periodic Technical Advisory Group meetings. The updates will focus upon landowner contacts, plans prepared and best management practices installed.

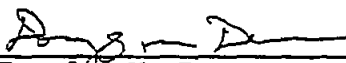
Article V - Termination

Each party hereto agrees that participation by any party to this agreement may be terminated by that party upon thirty (30) days written notice to the other parties to this agreement.

In the event of termination all applications received for payment prior to the termination date will be processed for payment subject to eligibility requirement and built according to HSCD and MSCD respective approval. No applications will be accepted on or after the termination date. Any remaining funding after eligibility payments will be disbursed equally to WSSC, Howard and Montgomery Counties.

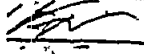
  
\_\_\_\_\_  
Charles I. Ecker  
County Executive  
Howard County

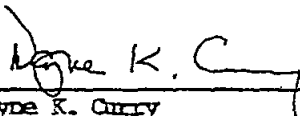
11-20-98  
Date

  
\_\_\_\_\_  
Douglas M. Duncan  
County Executive  
Montgomery County

11/18/98  
Date

AS TO FORM AND LEGALITY  
COUNTY ATTORNEY

  
\_\_\_\_\_  
11/24/98

  
\_\_\_\_\_  
Wayne K. Curry  
County Executive  
Prince George's County

11/24/98  
Date

Cortez A. White

Cortez A. White  
General Manager  
Washington Suburban Sanitary  
Commission

11/13/98  
Date

William E Barnes

William Barnes  
Chairman  
Howard Soil Conservation  
District

11/14/98  
Date

George Lechlides

George Lechlides  
Chairman  
Montgomery Soil Conservation  
District

10-1-98  
Date

Trudy Morgan Johnson

Trudy Morgan Johnson  
Executive Director  
Maryland-National Capital  
Park & Planning Commission

11/9/98  
Date

Attest: A. E. Nowak

Secretary-Treasurer

Patuxent Reservoir Protection Strategy  
Memorandum of Understanding

Amendment #1

This amendment is by and among the following parties: Howard County, Maryland (HC) a body corporate and politic; Montgomery County, Maryland (MC) a body corporate and politic; Prince George's County, Maryland (PGC) a body corporate and politic; the Howard Soil Conservation District (HSCD), the Montgomery Soil Conservation District (MSCD), Maryland-National Capital Park and Planning Commission (M-NCPPC), and the Washington Suburban Sanitary Commission (WSSC), and is effective this 30<sup>th</sup> day of November, 2000.

The parties entered into a Memorandum of Understanding (MOU) effective October 1, 1998. The purpose of this amendment is: 1) to delete the provisions for the hiring of a Conservation Planner position; 2) to modify the stream-side cost-share program in Article III of the MOU; and 3) to add provisions for amending the MOU.

Under Article III of the MOU, the Howard Soil Conservation District (HSCD) and the Montgomery Soil Conservation District (MSCD) would utilize funding provided via the MOU to reimburse owners of agricultural-zoned property for up to 12-1/2% of their out-of-pocket cost for installation of stream-side best management practices. This reimbursement would supplement state and federal cost-share programs that presently pay up to 87-1/2% of installation costs of stream-side best management practices (BMP's). The Technical Advisory Committee (TAC) decided that cost-share funds from this MOU instead should be spent on implementing stream-side best management practices for non-agricultural zoned property owners (who are not presently eligible for the state and federal cost-share programs). This new incentive program will provide reimbursement payments to non-agricultural zoned property owners for installation of approved stream-side best management practices, such as the creation of riparian buffers, the fencing of streams, and similar approved BMP's.

Changes

- 1) On page 1, the sixth paragraph is revised to read as follows: "Whereas, the first initiative will focus upon the volunteer agricultural conservation planning outreach efforts of the two soil conservation districts, and the second initiative is the development of a local cost-share program for the installation of stream-side best management practices;"
- 2) Article I - Funding, A. General is revised as follows:
  - a. The third sentence is revised to read as follows: "The amounts required by HSCD and MSCD will be approved within their respective districts for the stream-side best management practices initiative."
  - b. The fourth sentence is revised to delete number 1, and numbers 2 and 3 are respectively renumbered as 1 and 2.
  - c. Article I - Funding, C. Conservation Planner Position. The entire section is deleted.
- 3) Article II - Conservation Planner, A. Administration is deleted and the following is inserted instead: "The Howard and Montgomery Soil Conservation Districts will provide existing resource staff toward the development of soil conservation and water quality plans. This staff will be serving the agricultural community as defined by the respective district's Agricultural Unit Inventory within the Patuxent reservoir watersheds. This staff will contact landowners on the importance of soil conservation and water quality plans. Staff will prepare conservation plans for the landowners and assist with the implementation of those plans. Those efforts will be based upon the volunteer participation of landowners and district public outreach efforts."
- 4) Article II - Conservation Planner, B. Work Plans. The word "accelerated" is deleted from the first sentence.

5) Article III - Cost Share Program, is deleted and the following is inserted instead: "HSCD and MSCD will jointly develop and approve a local stream-side cost-share/incentives program and payment schedule that will encourage landowners of non-agricultural zoned property to install best management practices that protect and improve water quality in the Patuxent Reservoirs Watershed. The program will provide cost share up to 80% of the approved program costs or incentive payment schedule (to be approved and distributed by the two soil conservation districts), not to exceed \$5,000 per property owner, regardless of the number of projects to be implemented by the property owner or the number of non-agricultural zoned properties owned. All eligible applicants will be required to install their best management practices in accordance with USDA Natural Resources Conservation Service standards and specifications."

6) A new Article V, is added to read as follows:

Article V - Amendments

This agreement may be amended at any time by written agreement of the parties. The Technical Advisory Committee (TAC) may initiate action to amend this agreement and propose terms for the amendment. The TAC will employ the following process for obtaining consensus regarding review and approval of any proposed amendments:

1) Any amendment pertaining to the appropriation, allocation or expenditure of funds may be adopted by the written agreement of the following three entities providing funds: Montgomery County, Howard County and the WSSC. This adoption will be evidenced by an amendment document executed by the official representatives of the respective three entities.

2) Amendments of a non-funding nature shall require the written approval of all parties.

7) The old Article V - Terminations becomes Article VI

8) All provisions of the Memorandum of Understanding remain in effect unless specifically changed by this amendment.

Signature Page

*James N. Robey*  
James N. Robey  
County Executive  
Howard County, Maryland

7/12/00  
Date

*Douglas M. Duncan*  
Douglas M. Duncan  
County Executive  
Montgomery County, Maryland

6/6/2000  
Date

*Wayne K. Curry*  
Wayne K. Curry  
County Executive  
Prince George's County, Maryland

10/12/00  
Date

*John R. Griffin*  
John R. Griffin  
General Manager  
Washington Suburban Sanitary  
Commission

8-21-00  
Date

*William Barnes*  
William Barnes  
Chairman  
Howard Soil Conservation District

7/19/00  
Date

*George Lechlides*  
George Lechlides  
Chairman  
Montgomery Soil Conservation District

5/31/2000  
Date

*Trudye Morgan Johnson*  
Trudye Morgan Johnson  
Executive Director  
Maryland-National Capital Park &  
Planning Commission

11/30/02  
Date  
*Patricia Blum Barry*  
Secretary-Treasurer

APPROVED AS TO FORM AND LEGALITY.

APPROVED AS TO LEGAL SUFFICIENCY

*NR*

*[Signature]*



# Patuxent Reservoir Protection Strategy

## Memorandum of Understanding

### Amendment #2

This amendment is by and among the following parties. Howard County, Maryland (HC) a body corporate and politic, Montgomery County, Maryland (MC) a body corporate and politic, the Howard Soil Conservation District (HSCD), the Montgomery Soil Conservation District (MSCD), and the Washington Suburban Sanitary Commission (WSSC) and is effective this 7<sup>th</sup> day of June 2004

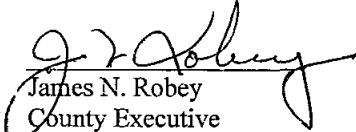
### Background

The parties entered into a Memorandum of Understanding (MOU) October 1, 1998 to develop a program for encouraging and supporting streamside best management practices in the Patuxent Reservoir watershed

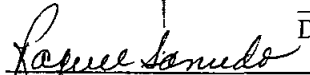
The Technical Advisory Committee (TAC) during its deliberation in the year 2000 recommended that the cost-share funds from this MOU should be spent on implementing streamside best management practices for non-agricultural zoned property-owners who are not eligible for the state and federal cost-share programs. This recommendation was approved on November 30, 2000 via Amendment #1. In light of the fact that no non-agricultural applicants have been interested in this cost share program in Montgomery County, Amendment #2 is developed to modify Art. III regarding the eligible streamside properties for the cost-share program. Modifications include 1) replacing "land owners of non-agricultural zoned properties" in line 3 of Art. III with "property owners", and 2) removing "non-agricultural zoned" in the 8<sup>th</sup> line of Art. III. The modifications read as follows:

- 1) Article III The Howard Soil Conservation District (HSCD) and the Montgomery Soil Conservation District (MSCD) will jointly develop and approve a local stream-side cost-share/incentives program and payment schedule that will encourage property owners to install best management practices that protect and improve water quality in the Patuxent Reservoirs Watershed. The program will provide cost share up to 80% of the approved program costs or incentive payment schedule (to be approved and distributed by the two soil conservation districts), not to exceed \$5,000 per property owner, regardless of the number of projects to be implemented by the property owner or the number of properties owned. All eligible applicants will be required to install their best management practices in accordance with USDA Natural Resources Conservation Service standards and specifications
- 2) All provisions of the Memorandum of Understanding and Amendment #1 remain in effect unless specifically changed by this Amendment

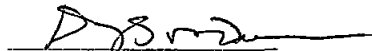
Signature Page

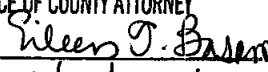
  
James N. Robey  
County Executive  
Howard County, Maryland

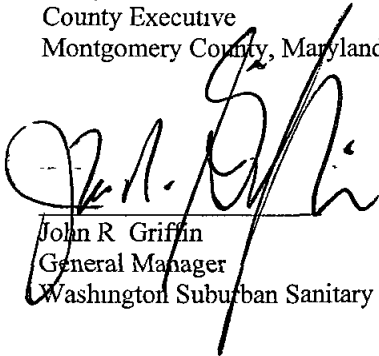
ATTEST:

  
Raquel Sanudo  
Chief Administrative Officer

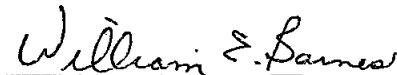
5/4/04  
Date  
5/4/04  
Date

  
Douglas M. Duncan  
County Executive  
Montgomery County, Maryland

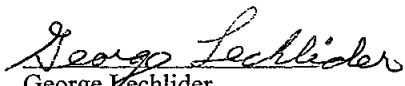
5/23/04  
Date APPROVED AS TO FORM AND LEGALITY  
OFFICE OF COUNTY ATTORNEY  
BY   
DATE 5/21/2004

  
John R. Griffin  
General Manager  
Washington Suburban Sanitary Commission

6/7/04  
Date

  
William Barnes  
Chairman  
Howard Soil Conservation District

2/26/04  
Date

  
George Lechlides  
Chairman  
Montgomery Soil Conservation District

3/12/04  
Date

Approved as to Legal Sufficiency  
this 4<sup>th</sup> day of May 2004.

Barbara M. Cook  
Barbara M. Cook  
Howard County Legal Department

\_\_\_\_\_  
Date

Approved as to Legal Sufficiency

Wiles J. Swamer  
Montgomery County Legal Department

5/21/2004  
Date

Approved as to Legal Sufficiency

Clauddia Koenig  
Washington Suburban Sanitary Commission  
General Counsel's Office

5-26-04  
Date

## Appendix G: Technical Advisory Committee Members and Participants

**Patuxent Reservoirs Watershed Protection Group  
Technical Advisory Committee - 2012**

**Members and Alternates**

	<b>Agency</b>	<b>Name</b>	<b>Alternate</b>
1	Howard County Department of Health	Bert Nixon	
2	Howard County Department of Planning & Zoning	Susan Overstreet	Lindsay DeMarzo
3	Howard County Department of Public Works Stormwater Management Division	Howard Saltzman	Angela Morales
4	Howard Soil Conservation District	Kristal McCormick	
5	Maryland Department of Agriculture Office of Resource Conservation	Byron Petrauskas	
6	Maryland Department of the Environment	VACANT	
7	Maryland Department of Natural Resources	VACANT	
8	Maryland-National Capital Park & Planning Commission	Mark Symborski	Katherine Nelson
9	Montgomery County Department of Environmental Protection	Meo Curtis	
10	Montgomery County Department of Permitting Services	VACANT	
11	Montgomery Soil Conservation District	David Plummer	
12	Prince George's County Department of Environmental Protection	Jerry Maldonado	Debbie Weller
13	Prince George's County Department of Health Division of Environmental Health	Ken Clare	
14	WSSC, Environmental Group	Martin Chandler	

**Interested Parties**

	<b>Agency</b>	<b>Name</b>
1	Howard Soil Conservation District	Bob Ensor
2	Maryland Department of Natural Resources, Park Service	Kim Lloyd
3	Montgomery County Department of Environmental Protection	Ryan Zerbe
4	Prince George's County Department of Environmental Protection	Carole Ann Barth
5	Prince George's Soil Conservation District	Eileen Beard
6	Prince George's Soil Conservation District	Dave Bourdon
7	Prince George's Soil Conservation District	Steve Darcy
8	WSSC, Office of Communications & Community Relations	Sandy August
9	WSSC, Office of Communications & Community Relations	Kim Knox
10	WSSC, Environmental Group	Mohammad Habibian
11	WSSC, Environmental Group, TAC Coordinator	Steve Nelson