

2008
Supplemental Documentation
In Support of
The Patuxent Reservoirs Watershed
Technical Advisory Committee's Annual
Report



TABLE OF CONTENTS

List of Acronyms and Abbreviations

Introduction

- 1.0 Reservoir and Tributary Water Chemistry Monitoring
- 2.0 Tributary and Habitat Monitoring
- 3.0 Stream Corridor Management
 - 3.1 Reddy Branch Subwatershed Project
 - 3.2 Cherry Creek Project
 - 3.3 Lower Hawlings River
- 4.0 Agricultural and Management Local Cost Share Initiative
 - 4.1 Reservoir Cost Share Program
 - 4.2 Significant Nutrient Reduction Initiatives
 - 4.3 Other Grants
- 5.0 Public Outreach and Involvement
 - 5.1 Earth Month – April 2008
 - 5.2 Volunteer Opportunities
 - 5.3 Library Programs
 - 5.4 Family Campfire
 - 5.5 IWLA-WAC
 - 5.6 Oyster Reef Program
 - 5.7 Brighton Dam Nature Center and Gardens
 - 5.8 Rainscaping
 - 5.9 Green Schools Mentoring Partnership
- 6.0 Consultant Support
 - 6.1 Activities Conducted
 - 6.2 Grants Summary

List of Figures

Figure 1 – Water Monitoring Equipment

Figure 2 - Stratification in Rocky Gorge – July 2008

Figure 3 - Stratification in Triadelphia – July 2008

Figure 4 - Secchi Values – Rocky Gorge - 2008
Figure 5 - Secchi Values – Triadelphia - 2008
Figure 6 - Chlorophyll-a – Rocky Gorge - 2008
Figure 7 - Chlorophyll-a – Triadelphia - 2008
Figure 8 - Carlson Trophic State Index – Rocky Gorge - 2008
Figure 9 - Carlson Trophic State Index – Triadelphia - 2008
Figure 10 – Reddy Branch Deer Protection
Figure 11 – Reddy Branch Tree Planting
Figure 12 – Reddy Branch Tree Planting
Figure 13 – Cherry Creek Restoration
Figure 14 – Cherry Creek Reach 1
Figure 15 – Ag Practices
Figure 16 – Earth Month Environmental Fair
Figure 17 – Library Volunteer Opportunities
Figure 18 – Library Programs
Figure 19 – Family Campfire
Figure 20 – Oyster Reef Program (1)
Figure 21 – Oyster Reef Program (2)
Figure 22 – Oyster Reef Program (3)

List of Tables

Table 1 – Presenters for H2O Fest
Table 2 – Library Programs
Table 3 – 2008 Grants Summary

Appendices

Appendix 1 – Patuxent Reservoirs Watershed Protection Agreement with Agricultural
Memorandum of Understanding and Amendments
Appendix 2 - 2008 Policy Board Meeting Agenda and Summary
Appendix 3 – 2008 TAC Meeting Agendas and Summaries
Appendix 4 - 2008 Correspondence and Grants

List of Acronyms

BMP	Best Management Practice
CHL-a	Chlorophyll-a
CBT	Chesapeake Bay Trust
COMAR	Code of Maryland Regulations
Deg C	Degrees Celsius
DNR	Department of Natural Resources
DEP	Montgomery County Department of Environmental Protection
DGPS	Differential Global Positioning Service
DO	Dissolved Oxygen
DPWT	Montgomery County Department of Public Works and Transportation
ea	Each
EPA	U.S. Environmental Protection Agency
Fe	Iron
ft	Feet
FY	Fiscal Year
GIS	Geographic Information System
H2O	Water
HC	Howard County
HSCD	Howard Soil Conservation District
IBI	Index of Biological (or Benthic) Integrity
IWLA-WAC	Izaak Walton League of America – Wildlife Achievement Chapter
LA	Load Allocation
Lbs/yr	Pounds per year
LID	Low Impact Development
MACS	Maryland Agricultural Cost Share
MC	Montgomery County
MCCC	Montgomery County Conservation Corp
MDA	Maryland Department of Agriculture
MDE	Maryland Department of the Environment
mg/L	Milligrams per Liter
Mg/m ³	Milligrams per cubic meter
M-NCPPC	Maryland-National Capital Park and Planning Commission
MSCD	Montgomery Soil Conservation District
NFWF	National Fish and Wildlife Foundation
PC	Partnership Coordinator
PGC	Prince George's County
pH	Power of Hydrogen
RG	Rocky Gorge
SCD	Soil Conservation District
TAC	Technical Advisory Committee
Temp	Temperature

TBD	To be determined
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TP	Total Phosphorus
Tons/yr	Tons per year
TRI	Triadelphia
TSI	Trophic State Index
µg/L	Micrograms per Liter
USGS	US Geological Survey
WLA	Waste Load Allocation
WSSC	Washington Suburban Sanitary Commission

Introduction

Every year, the Technical Advisory Committee (TAC) of the Patuxent Reservoirs Watershed Protection Group completes an Annual Report to summarize accomplishments towards achieving long-term protection of watershed priority resources. The priority resources include:

- Reservoirs and Drinking Water Supply
- Terrestrial Habitat
- Stream Systems
- Aquatic Biota
- Rural Character and Landscape
- Public Awareness and Stewardship

This 2008 Supplemental Documentation in Support of the Patuxent Reservoirs Technical Advisory Committee's Annual Report contains more detailed information on several elements of the TAC work program for FY 08 and FY 09. In addition, the appendices contain the 1996 Patuxent Reservoirs Watershed Protection Agreement, the TAC and Policy Board meeting agendas and summaries for 2008, TAC correspondence for 2008, and the Agricultural Memorandum of Understanding with amendments.

1.0 Reservoir Water Monitoring

The following charts show July dissolved oxygen concentrations at two sites [Triadelphia Site TR1 and Rocky Gorge Site RG1 (both sites nearest the dams)], Secchi disk readings, Chlorophyll-a (CHL-a), and calculated Carlson Trophic State Index (TSI) results, based on CHL-a, Secchi disk and Total Phosphorus values for the 2008 monitoring period (the data are not continuous due to technical difficulties and dam maintenance). To date the reservoirs still show a trend toward eutrophic conditions, an over enrichment of nutrients, as indicated by a majority of months with TSI values in excess of 50.

Figure 1
Water Monitoring Equipment



Data Logger



Hydrolab Sonde



Hydrolab Sensors



Secchi Disk

Figure 2 - Stratification in Rocky Gorge - July 2008

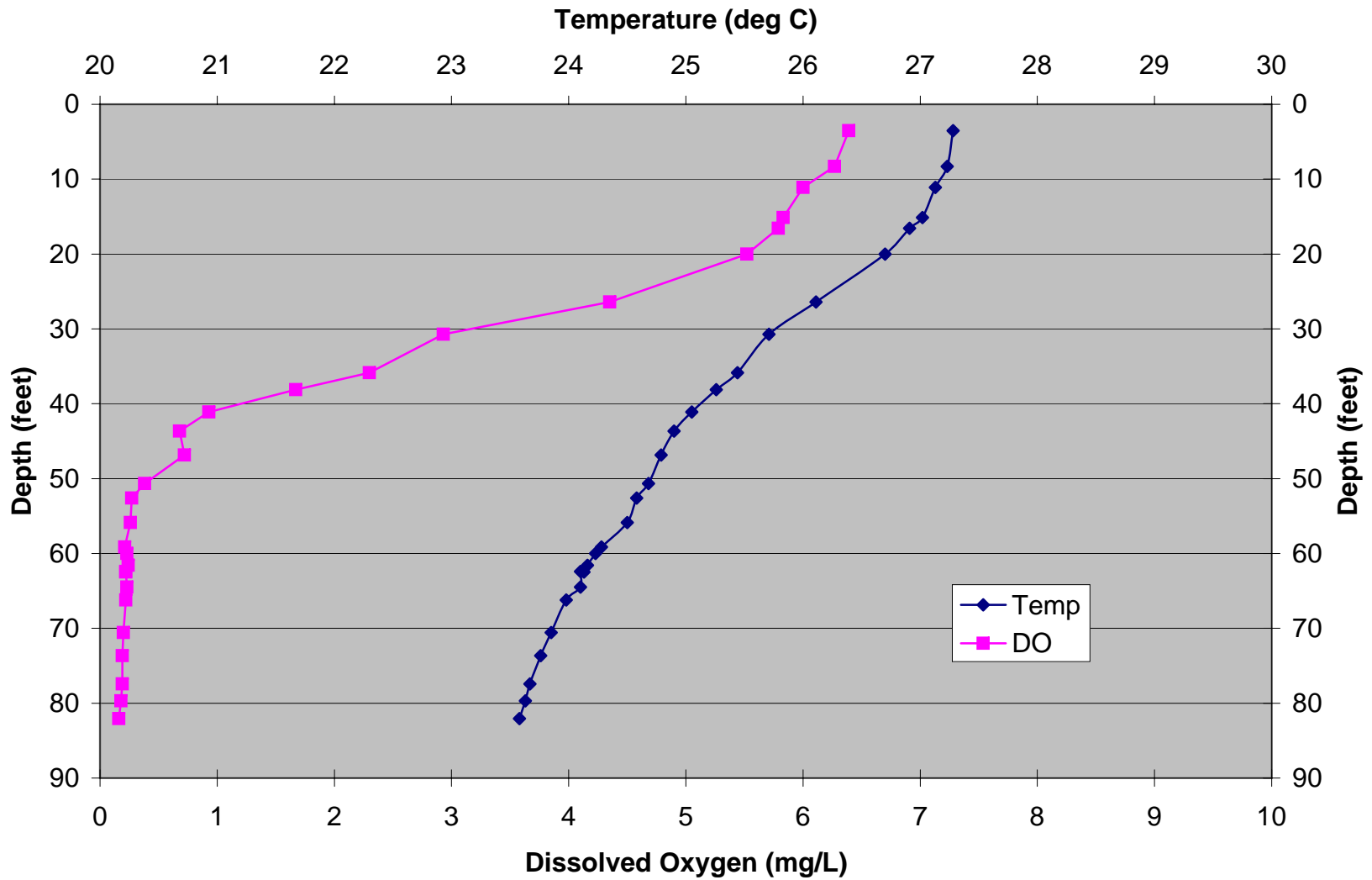


Figure 3 - Stratification in Triadelphia - July 2008

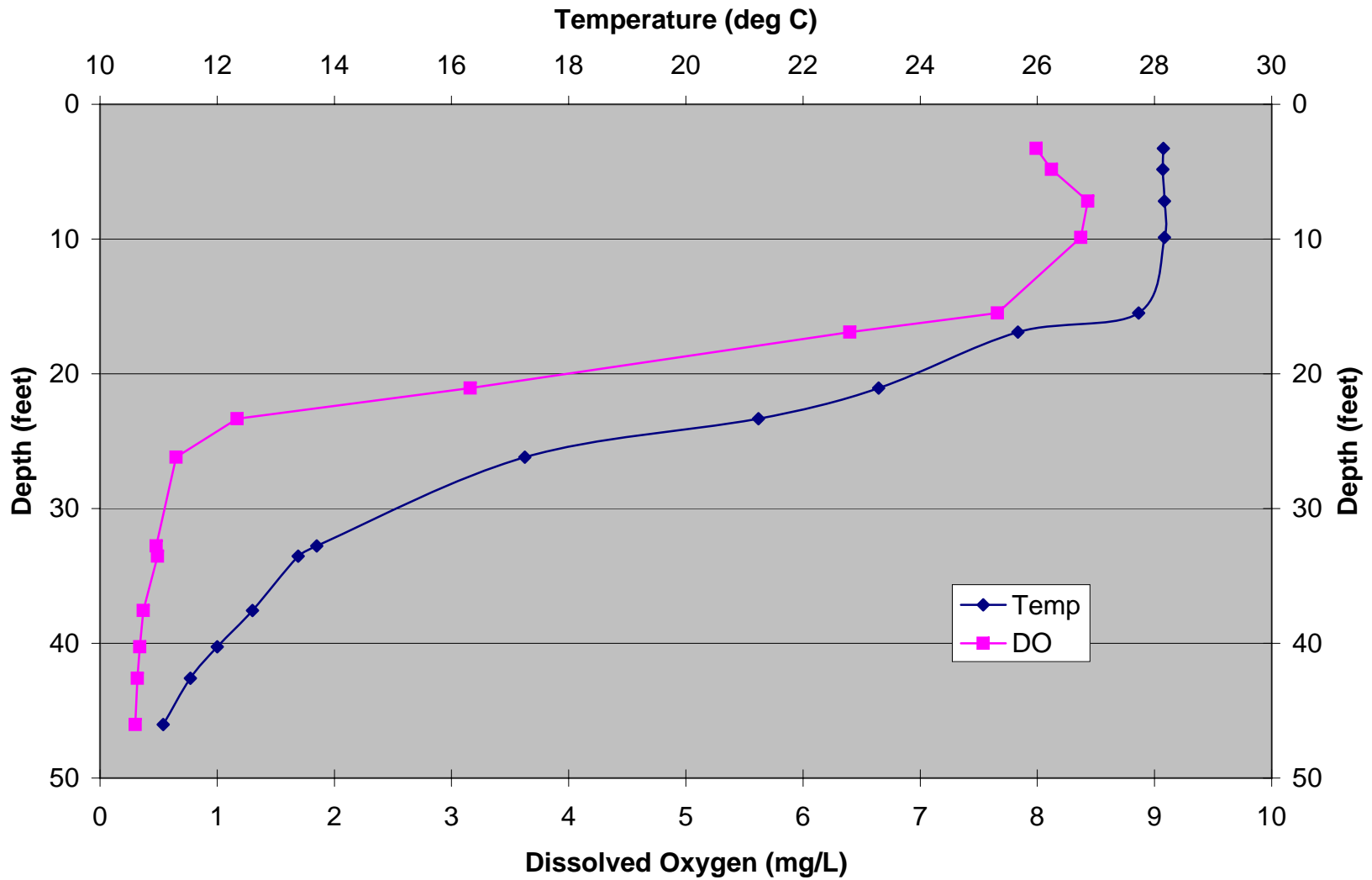


Figure 4 - Secchi Values - Rocky Gorge - 2008

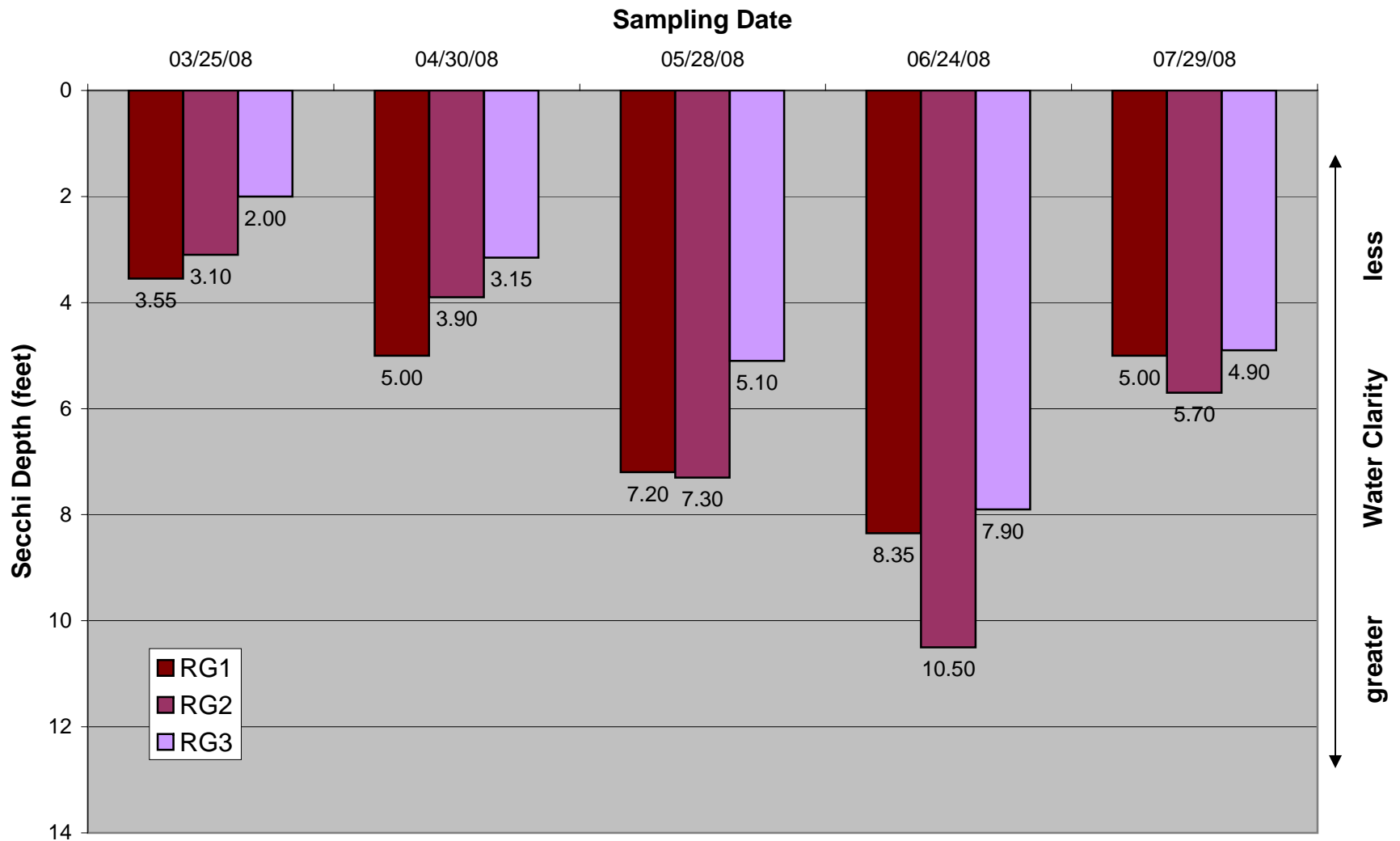


Figure 5 - Secchi Values - Triadelphia - 2008

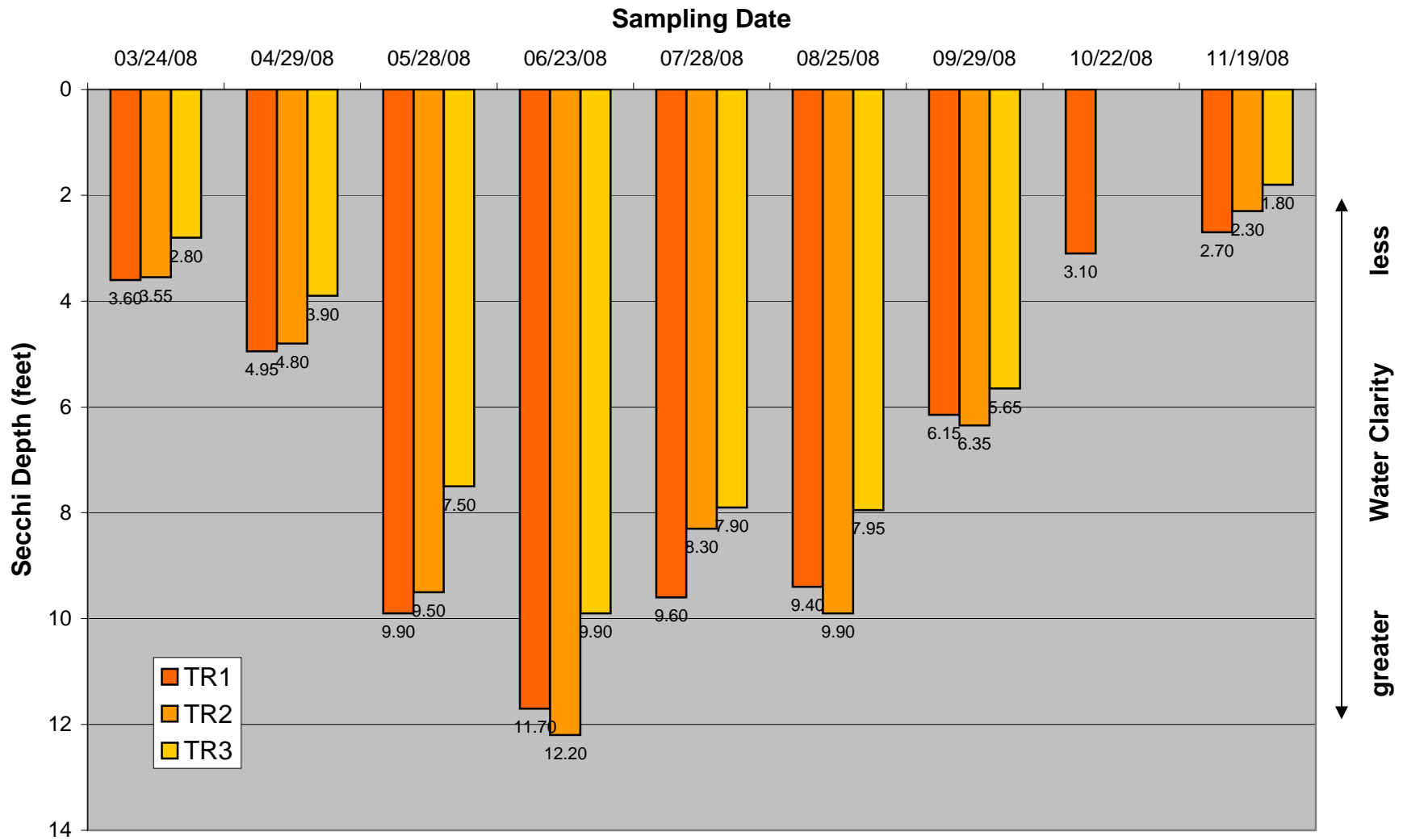


Figure 6 - Chlorophyll-a - Rocky Gorge - 2008

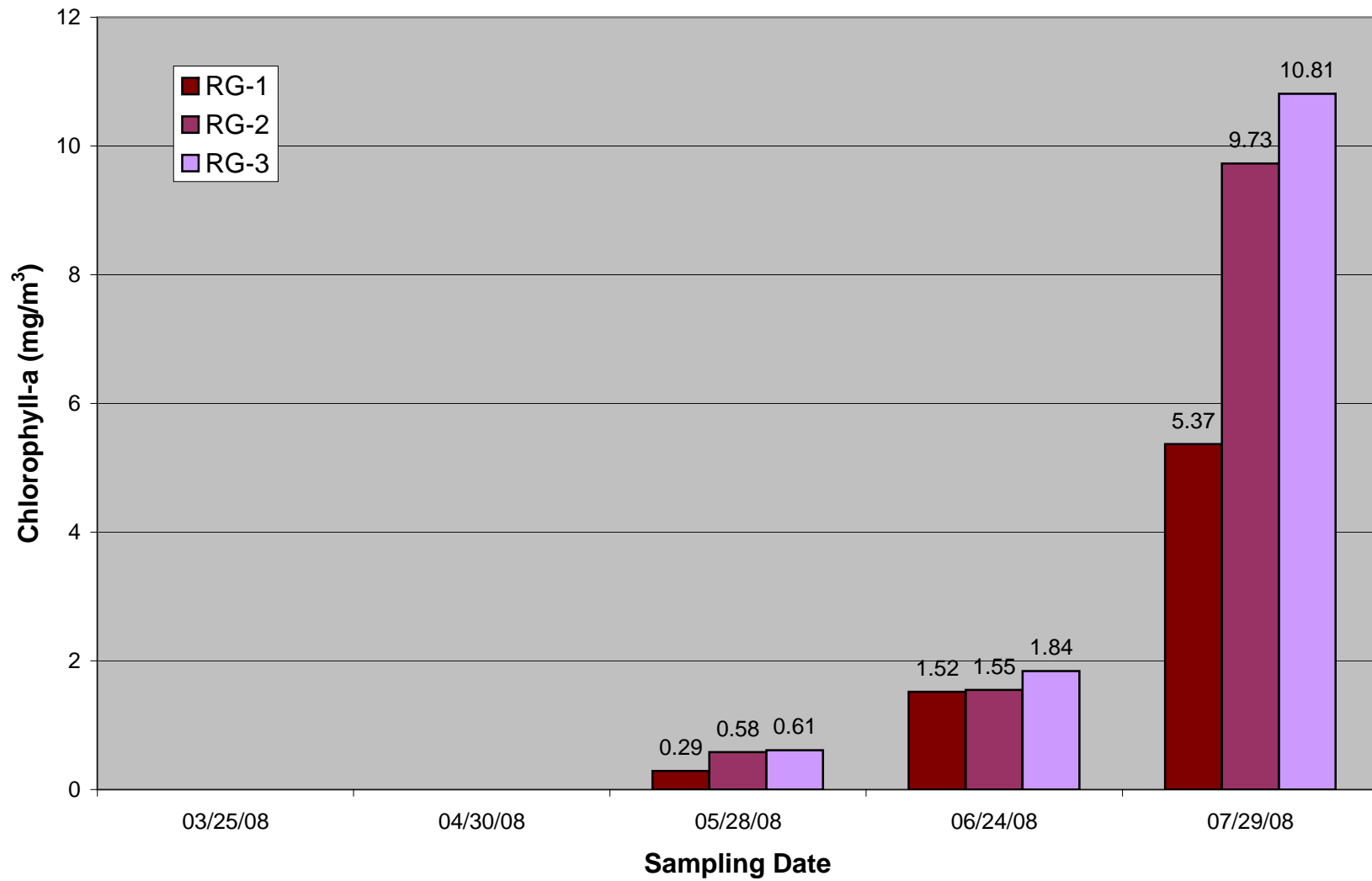
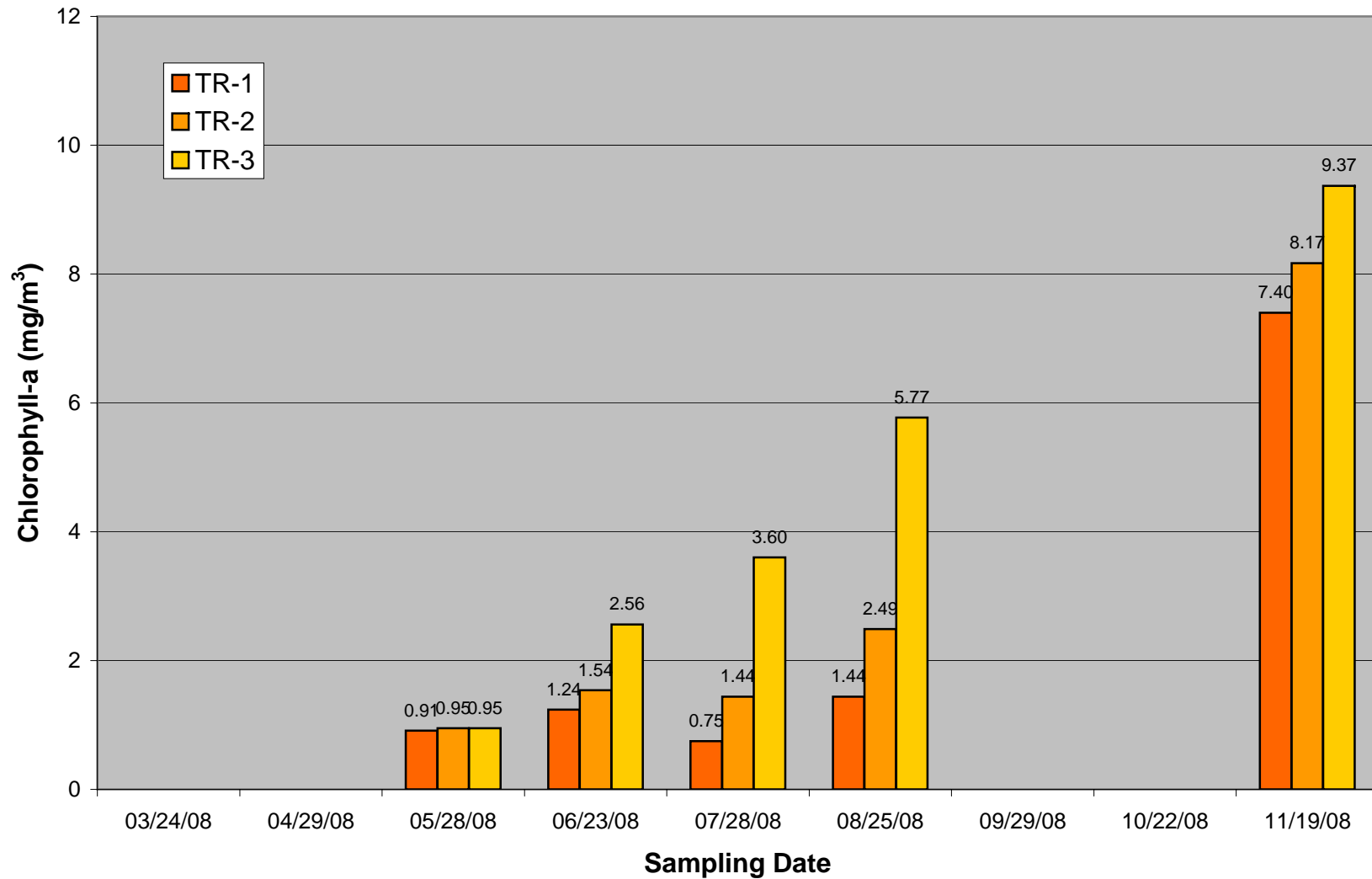
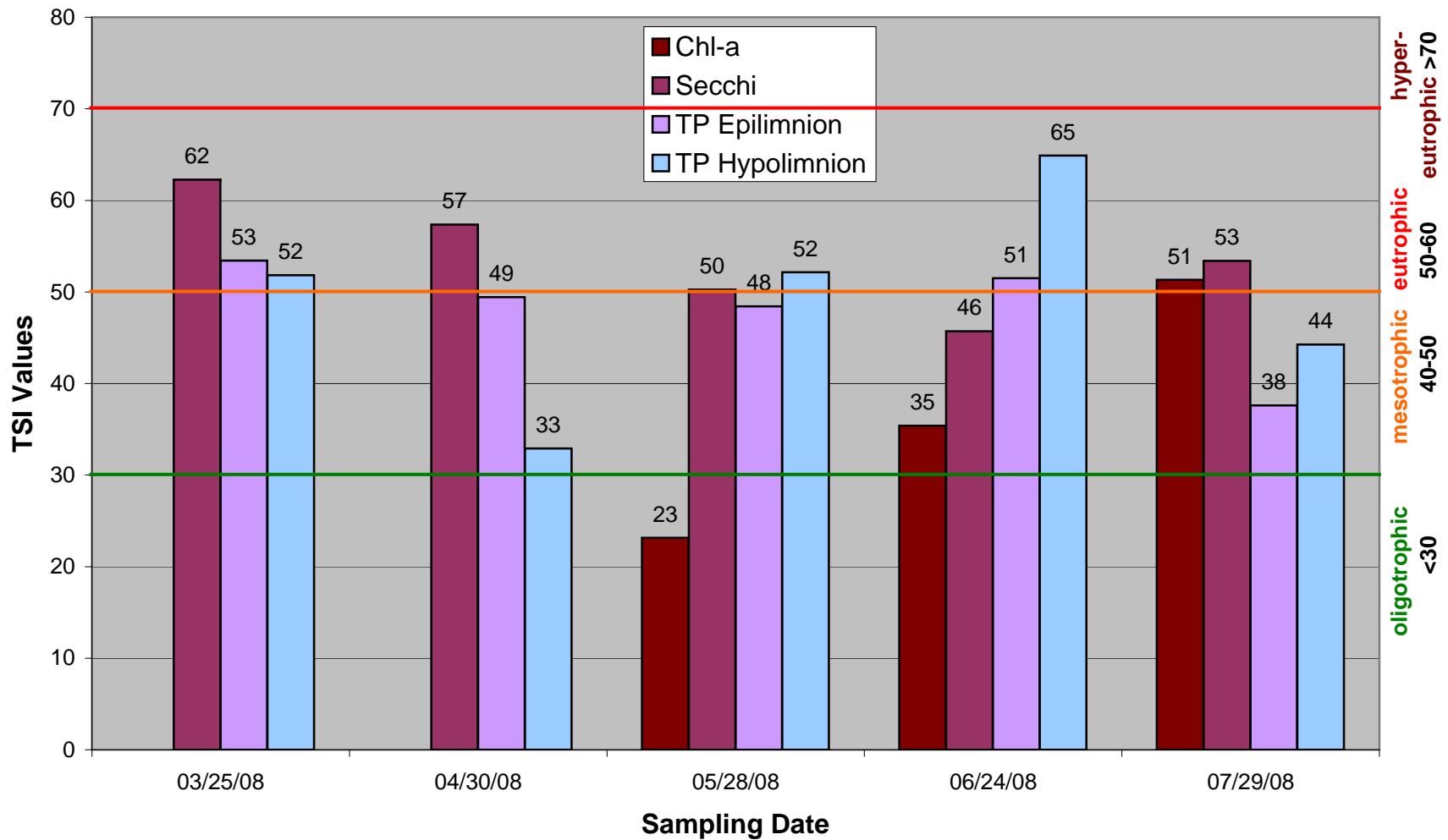


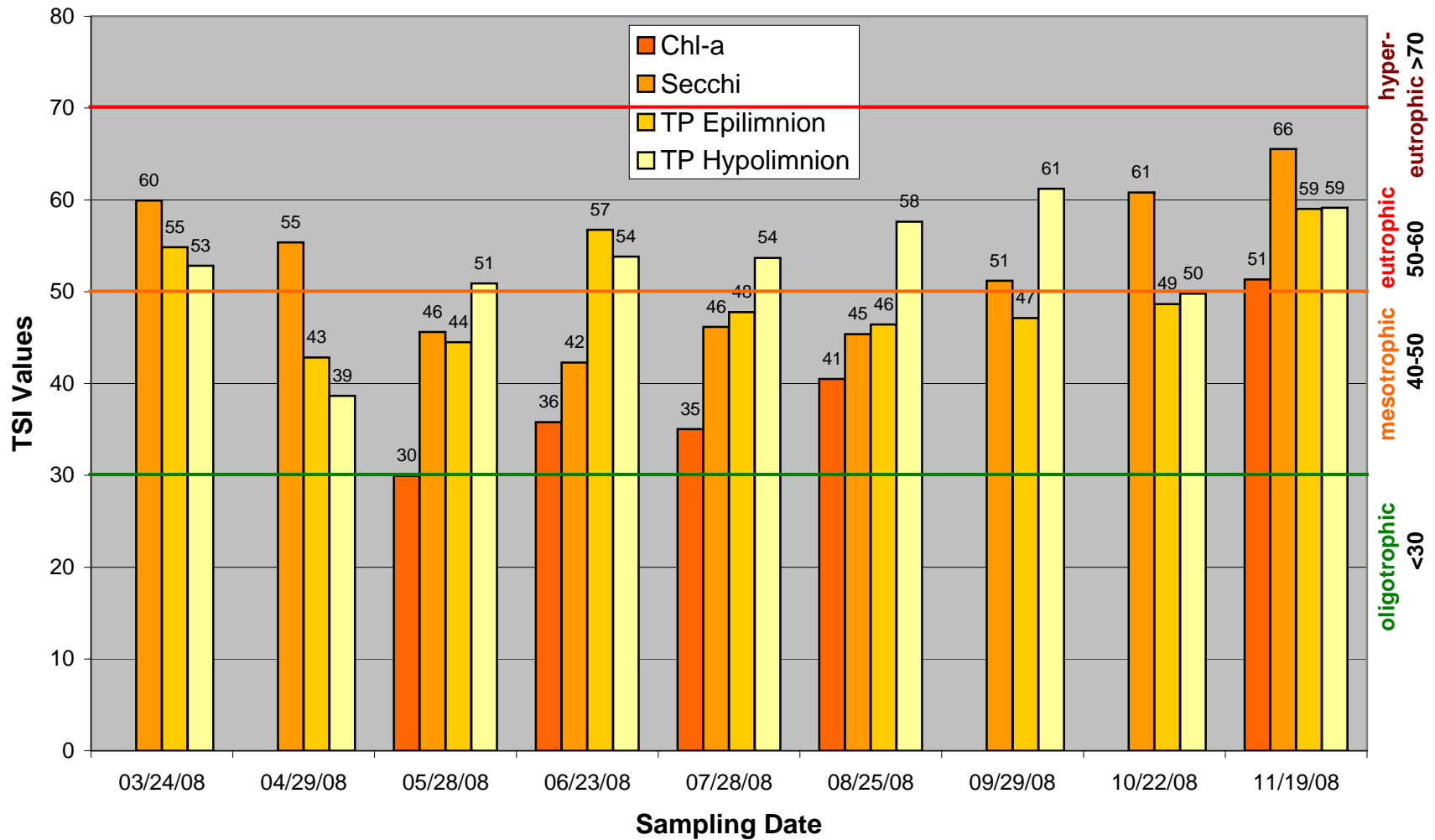
Figure 7 - Chlorophyll-a - Triadelphia - 2008



**Figure 8 - Carlson Trophic State Index - Rocky Gorge - 2008
(Averaged Values for Stations RG-1, RG-2 and RG-3)**



**Figure 9 - Carlson Trophic State Index - Triadelphia - 2008
(Averaged Values for Stations TR-1, TR-2 and TR-3)**



2.0 Tributary and Habitat Monitoring

Biological and habitat monitoring of the tributaries is used to track progress in protecting the stream system and aquatic biota, as land cover changes occur and stream restoration and streamside best management practices are implemented. These monitoring efforts can also locate problem areas and provide indicators for possible problem sources, to help guide future restoration efforts.

Howard County is on a five-year biological monitoring cycle for watersheds in the county. The reservoir watersheds were last monitored in 2005.

There was no Montgomery County Department of Environmental Protection (DEP) monitoring in the Patuxent watershed during 2008. Next scheduled monitoring will be during 2009 and will be for the third year after construction for the Lower Hawlings stream restoration project. The project will be assessed for success in stabilizing stream banks and in stream channel, and improving the aquatic biological community.

3.0 Stream Corridor Management

In 2005, the TAC decided that establishing and maintaining 35-foot forested riparian buffers on all streams in the watershed would be the highest priority implementation project. Howard and Montgomery County conducted assessments on opportunities for establishing riparian buffers in the watershed and Montgomery County selected a site for a pilot planting project. In August 2006, WSSC hired a consultant to work with Montgomery and Howard County to identify possible grant funding sources for pilot planting projects. The first project to move forward for grant solicitation was a 10 acre riparian buffer planting in Reddy Branch Stream Valley Park in Montgomery County.

As reported in 2005, based on a geographic information system (GIS) analysis, establishing riparian buffers on all streams in Howard County will require planting approximately 475 acres of riparian buffers on approximately 1,800 separate properties. Approximately 25 acres are on open space lots, Washington Suburban Sanitary Commission property, State and County parks and open space. The remaining properties are privately owned.

3.1 Reddy Branch

The Reddy Branch project has moved to implementation. The site was chosen for installation of a riparian buffer because it was public land suffering from encroachment and manure dumping. Much of the planning for the project was accomplished by WSSC contractors (Versar and Capuco Consulting) in the grant preparation process. Volunteer involvement has been important. Deer protection has been successful because the trees were planted in protective tubes that roll around the trunk and they were sufficiently large that the branches are above the browse line. Another 2.5 acres will be planted in 2009 and additional acreage is planned for 2010. It's interesting to note that this project has been replicated in the Rock Creek watershed.

Figure 10 - Reddy Branch Deer Protection



Figure 11 - Reddy Branch Tree Planting



Figure 12 - Reddy Branch Tree Planting

3.2 Cherry Creek Project

Howard County continues to improve the Cherry Creek Watershed, which drains directly to the Rocky Gorge Reservoir. Cherry Creek has degraded due to unmanaged stormwater runoff in the headwaters of the watershed. Stream bank and channel erosion are recognized as contributing a significant sediment load to the water supply reservoir (Figure 13).

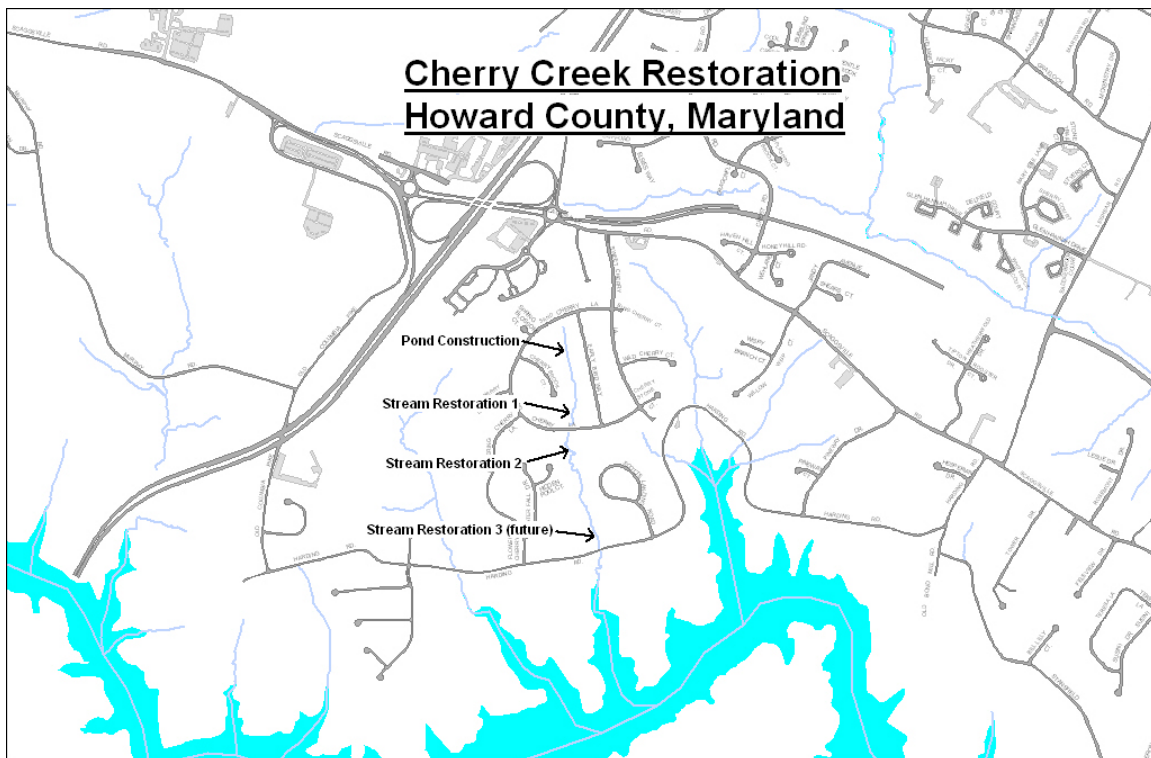


Figure 13 - Cherry Creek Restoration

Howard County has completed a comprehensive watershed study of Cherry Creek and identified three stream reaches in need of restoration (Figure 14).

1. Reach 1 uses a \$25,000 grant from the Maryland Department of Natural Resources (DNR) and \$37,600 from the Chesapeake Bay Trust. The County restored 300 linear feet of headwater stream and also constructed three new stormwater management ponds in the headwaters. Construction of the ponds and the stream restoration was completed in early 2006.
2. Reach 2 is a 600 linear foot stream channel located near the Scotts Cove boat launch. This reach is unstable, with grade control problems and high bank erosion rates. The design for restoration of this reach is complete, with construction scheduled to begin and end in Fall/Winter of 2008 (FY09). The project construction cost for the restoration of this reach is estimated as \$330,000. A pre-application was submitted to Maryland Department of the Environment (MDE) requesting \$165,000 in a Small Creeks and Estuaries Restoration Program (SCERP) grant; the remaining funds will be provided by Howard County.

3. Reach 3 is a 250 linear foot stream channel located upstream of the Harding Road culvert. The channel is relatively straight with a fairly high channel slope. In the lower section the channel is incised, having vertical stream banks and no riparian buffer. Implementing a meander pattern to increase sinuosity will necessitate relocation of a sewer line. The project cost for both design and construction is estimated at \$300,000. This third reach is not yet in the capital improvement program.



Cherry Creek Stream Preconstruction



Cherry Creek Stream Construction



Cherry Creek Stream Post Construction



Cherry Creek Ponds Construction



Cherry Creek Ponds Post-construction

Figure 14 - Cherry Creek Reach 1

3.3 Hawlings River

The volunteer component to maintain the planted buffer in the Lower Hawlings has not worked out and Maryland National Capital Parks and Planning Commission (M-NCPPC) and DEP staffs have had to return to the project to control invasive plants, primarily mile-a-minute and stilt grass. The coordination is ongoing through the 2008 growing season, but the survivability of the trees and shrubs will depend upon a strong long-term plan for controlling mile-a-minute. The existing upstream seed bank for invasives and their continued delivery during flooding events will deposit seed into the floodplain indefinitely.

As stated above, a riparian buffer was installed by M-NCPPC in March 2008 in the upper reaches of the Reddy Branch tributary to the Hawlings. Volunteers from the Sandy Spring Friends School also participated.

4.0 Agricultural and Management Local Cost Share Initiative

During 2008, increased emphasis was again placed on expanding use of the cost-share program.

4.1 Reservoir Cost-Share Program.

Through a grant provided by the Chesapeake Bay Trust, the Howard and Montgomery Soil Conservation Districts completed a survey of Patuxent Watershed agricultural landowners with small parcel sizes. The survey revealed that many of the respondents had considerable interest in learning more about conservation practices that could be implemented on their farms. The project targeted the equestrian community because there are many landowners within this group that are not familiar with the services and programs offered by the soil conservation districts. The smaller parcel landowners were also targeted because they may not qualify for the typical cost share programs offered by the state and federal governments. This represents an opportunity to market the Patuxent Agricultural Cost Share Program to these landowners and increase their awareness of conservation and natural resource issues.

Mailings have been done in the past to inform agricultural landowners of the availability of the Patuxent funds. The benefit of using the survey is that we can specifically address the conservation needs revealed by the respondents. The survey also allows us to focus our efforts on only those landowners that have expressed an interest in addressing a problem or undertaking a project that they have already been considering. It should improve the future marketing of the Patuxent Agricultural Cost Share Program and make the funds available to the landowners that are most interested in practicing sound stewardship of their properties.

4.2 Significant Nutrient Reduction Initiatives

WSSC cost share is limited to \$5,000 per applicant with restrictions. Maryland Department of Agriculture (MDA) has given each county \$10,000 to use with operations that fall outside of the traditional MACS and EQIP programs. This, too, has restrictions.

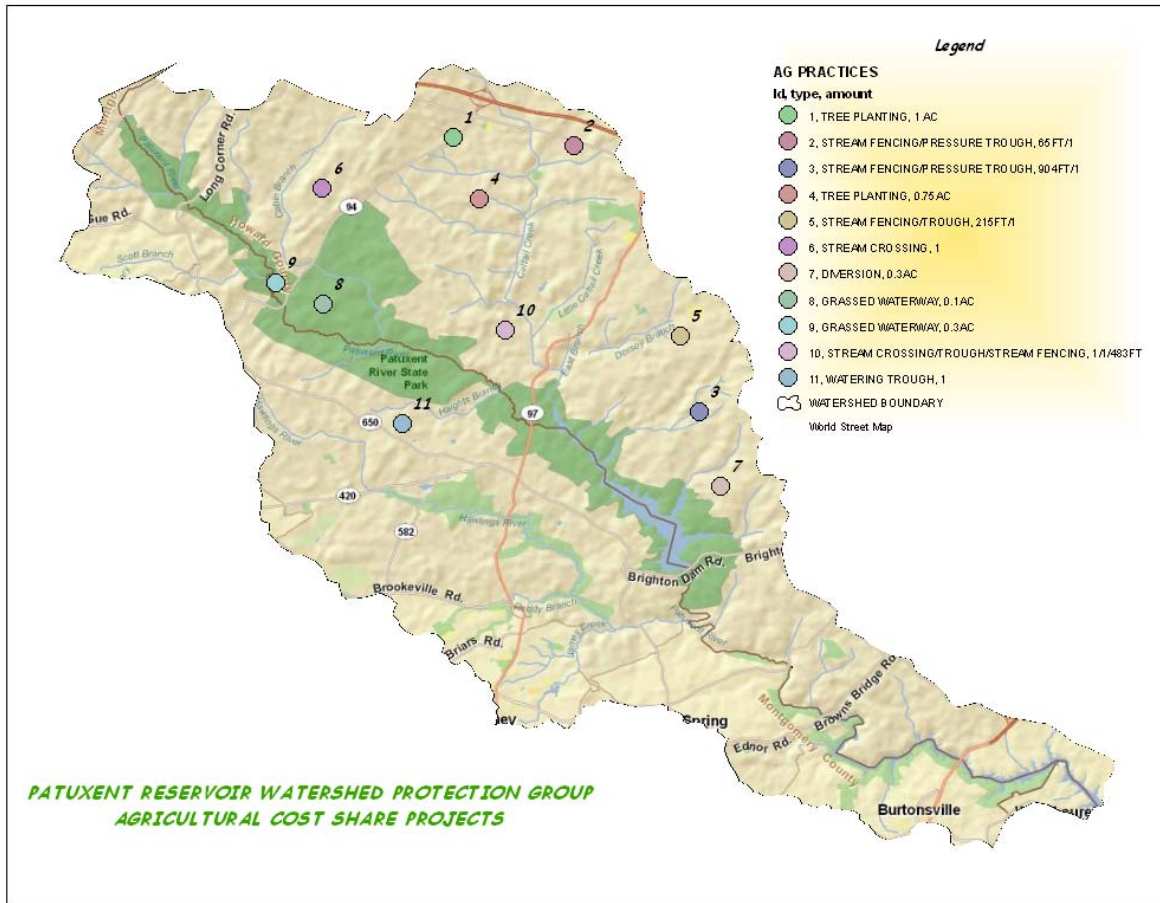
4.3 Other Grants

Howard Soil Conservation District (HSCD) and Montgomery Soil Conservation District (MSCD) have submitted an application to the 2010 Chesapeake Bay Trust Fund for an equine manure project in the Triadelphia Reservoir Watershed. The application was completed with assistance from Versar and Capuco Consulting. Application will use cost sharing funds to establish best management practices (BMP) on the properties (minimal restrictions) and to set up a regional composting facility to remove the waste from the properties and turn it into a resource for use by local residents. Total request is approximately \$3.5 million.

Pending the outcome of the 2010 grant, request will be submitted to National Fish and Wildlife Foundation (NFWF) for the Triadelphia Reservoir Equine project. Versar and Capuco Consulting will also assist with that application.

The Trust funded the Equine Survey last year, the results of which formed the basis for the 2010 Trust Fund Grant. The Trust also funded the development of a newsletter to be sent to equine owners in the Triadelphia Watershed from HSCD (MSCD already does a newsletter). Capuco Consulting assisted with the development of the grant application.

Figure 15



5.0 Public Outreach and Involvement

During 2008, the TAC continued its focus on stewardship and outreach activities. The TAC outreach committee under the coordination of WSSC outreach staff organized a watershed festival called H2O fest with the theme “thinking green to protect blue,” the annual clean up event and a family campfire in October.

5.1 Earth Month 2008

This year we held our first large-scale, Environmental Fair on Saturday, April 12, 2008 at WSSC property near the T.H. Duckett Dam on Brooklyn Bridge Road in Prince George’s County. “Thinking Green to Protect Blue” was the theme for this year’s main April Earth Month event. This was an excellent forum for our source water protection and environmental focus. Twenty-two individual presenters gave information and workshops on various environmental programs in the counties to the over 200 citizens who attended. Highlights of the day were tours of the dam for more than 170 people and a sewer maintenance demonstration by WSSC employees. Additional help was provided by a local school, a Girl Scout troop, and staff from several of the TAC agencies. Several presentations were made by groups that had provided workshops in the past. It is expected that we will hold this event annually and that it will provide more information for a larger audience in the future. The event was fun and educational with emphasis on those things that can affect source water. Plans have already begun for this event to be held again on April 18, 2009.

Figure 16 - Earth Month Environmental Fair



Table 1 – Presenters for H2O Fest

Presenters for H2O - Fest (to date) 4/12/2008, 12 - 4 pm <u>WSSC Property at Brooklyn Bridge Rd. (adjacent to entrance to Duckett Dam)</u>					
	site/location	AGENCY/COMPANY	SUBJECT	PRESENTER	needs
1	gravel lot	Environmental Concerns, St. Michaels	Childrens Wetland Activities	Wetland on Wheels	electricity
2	gravel lot	WSSC	ERV - First Aid	Kevin Woolbright	
3	med tent	MNCP&PC	Animals for kids	Brooke West	tables/chairs
4	med tent	Scout Troop EUROMOTORS, Germantown	Childrens Craft Activity	Carolin Pollack	picnic tables
5	small tent	Md. Cooperative Ext. Master Gardeners	(SMART Car Fortwo)	Sean Sarraf	tables
6	small tent	School - Bond Mill	Integrated Pest Management	Amanda Laudwein	bring their own tent
7	small tent	School - Scotchtown Hills	Display -- Bake Sale	Kelly Krause	picnic tables
8	small tent	WSSC	Display - Food Sale	Jessica Holt	picnic tables
9	small tent	WSSC	Sewer Cleaning and Inspection Truck Display	Veric Brown	
10	small tent	WSSC	Tours/ Information-Staging	Sandy/Tobias/Volunteers	table
11	tent	Constellation Energy	Wind Power	Greg Fox	table
12	tent	Howard County	Cherry Creek	Angela Morales	
13	tent	Howard County Soil Conservation		Kristal McCormick	
14	tent	Isaak Walton League Damascus Chapter	Information/Volunteer Opportunities	Jeff Deschamps	
15	tent	Mont. Co DEP	RainScapes Program	Meo Curtis	
16	tent	Montgomery County DEP	Composting	Alan Pultyniewicz	
17	tent	Patuxent Riverkeeper	Programs/Events/Volunteer Opportunities	Lauren Webster	
18	tent	Prince Georges County DER	Enviroscape Demonstration and Information	Debra Weller/Tammy Buttner	
19	tent	Prince Georges County DER	Recycling Program	Denise Curry	Didn't show up
20	tent	Prince Georges County Health Dept.	Sewage disposal and septic system video	Frank Wise	electricity/screen
21	tent	Shaklee Products	Enviro-Friendly Products	Sarita Milliner	
22	tent	Southern Md. Oyster Cultivation Soc	Oyster demonstration	Len Zuza	
22	tent	Urban Nutrient	Fertilizer Use	Judy McGowan	

3		Management Work Group			
2	tent	WSSC	Wastewater Treatment Info.	Angela Ballard-Landers	table
2	tent	WSSC	Rain Barrel raffle for Water Fund	Theresa Bond	table
2	tent	WSSC	Community Relations Table	Barbara Templeman	table
2	Info area	WSSC and PRWPG	Water Quality Sampling and reservoir maps		

5.2 Volunteer Opportunities

In cooperation with the Patuxent Riverkeeper, we participated again in the annual Patuxent River Cleanup Day on Saturday, April 5, 2008. Approximately 100 watershed neighbors, school groups, and Boy and Girl Scouts formed crews at nine WSSC recreation areas and picked up hundreds of pounds of trash and recyclables. Site leaders for this effort volunteer their time to organize, recruit, and report for the cleanup event. One such group was The Izaak Walton League Wildlife Achievement Chapter in Damascus. They provided water, gloves, lunch and a tee-shirt to all participants. In addition, several school groups accomplished clean up efforts on other days throughout the month of April. Large amounts of trash were removed from along the river on these days.



Figure 17 – Volunteer Opportunities

5.3 Library Programs

Again this year, source water protection programs for children were scheduled at county libraries as listed below (Table 2). Very important networking is accomplished at these library programs (Figure 18). Contacts have been made with teachers and parents who attended with their children and asked about programs for their schools, possible tours of WSSC facilities, and volunteer opportunities for themselves and other groups of which they are members. The networking possibilities at the libraries are worth the effort of continuing to hold these children's programs. Attendance totaled 117 people plus library staff. The breakdown for attendance at each library is given below (Table 2).

Table 2 - Library programs		
Prince George's County	Montgomery County	Howard County
Laurel Library Pre-School: 6 adults, 8 children Elem. School: 15 adults, 22 children	Olney Library Pre-School: 23 adults, 31 children Elem. School: 4 adults, 8 children	

Figure 18 – Library Programs



5.4 Annual Family Campfire

This event was held this year on October 3, 2008 at WSSC's Brighton Dam Recreation Area in Montgomery County. It has been held annually since 2001 and has become a favorite in the community. Once again the weather cooperated with a warm autumn evening that was perfect for a classic bonfire with marshmallows and chocolate for refreshments. The over 450 attendees were greeted by WSSC Interim General Manager Teresa Daniell and TAC Vice-Chair David Plummer. We provided information posters on watershed habitat protection and the annual Patuxent River Cleanup. Also this year we recognized site leaders for the 2008 cleanup event with a certificate and small gift. Entertainment was provided free of charge by a group called "Just 3 Guys" led by WSSC employee Tom Kelly.

Figure 19 - October 3, 2008 Family Campfire



5.5 Izaak Walton League of America-Wildlife Achievement Chapter (IWLA-WAC)

The Montgomery County DEP and Department of Public Works and Transportation (DPWT) continue to provide assistance to the IWLA-WAC in Damascus for outreach events opened to the general public during 2008. This included their Annual Spring Watershed Cleanup, their annual Fall Watershed Cleanup, workshops on nest boxes, "Make and Take" Rain Barrels, and invasive plant management, as well as the establishment of their American Chestnut tree nursery.

5.6 Oyster Reef Program

As we work with local schools to provide information about source water protection, we have become involved with an artificial oyster reef program that is sponsored by the Chesapeake Bay Foundation (CBF) and the Maryland Sportfisherman's Association. We circulate 4 molds among 20-30 schools and each school builds 4-6, 125 lb. oyster reef balls during the school year. These are brought to Brighton Dam and in May, WSSC staff loads up several trucks and delivers the finished reef balls to a CBF workboat in Shadyside, Maryland. The next day, representative teachers and students from some of the schools board another CBF boat to watch the reef balls being “planted” on the artificial reef in the bay just north of Baltimore. This program has engaged hundreds of students from our Patuxent Watershed Schools in hands on, “in your face” environmental education that will help us produce a new generation of environmental stewards in and around our reservoirs watershed.

Figure 20 - Oyster Reef Program 1



Figure 21 - Oyster Reef Program 2



Figure 22 - Oyster Reef Program 3

5.7 Brighton Dam Nature Center And Gardens

Work continues by the WSSC Community Relations Office regarding enhancement of the Brighton Dam Visitor's Center and gardens. Plans have been created for a rain garden in the parking lot median. Partnerships have been established with the Montgomery County Conservation Corps (MCCC) who will do the work and the Patuxent Riverkeeper who will be the grantee for any monies we are able to acquire. Plans have begun to establish a "Friends of Brighton Dam" non-profit organization dedicated to educational programs that promote water conservation and source water protection practices on the landscape. We hope this group will provide volunteer support as docents, plant propagators, plant sale workers, and teachers.

5.8 Rainscapes Program

A Rainscaping project has been ongoing in Montgomery County. Beginning in the latter half of 2008, grants encouraging residential rainscaping will be made available in the Patuxent Reservoirs Watershed. A percentage of the county funds allocation will be used in the Reservoirs watershed.

5.9 Green Schools Mentoring Partnership

During 2008, two Howard County schools, River Hills High School and Lime Kiln Middle School, received their "Green School" designation. Both schools are near the Patuxent Reservoirs Watershed. Lime Kiln is located in the Hammond Branch watershed which drains into the Little Patuxent Rivers and River Hills High School is in the Middle Patuxent watershed.

6.0 Consultant Support

The Partnership Coordinator (PC) position has provided many benefits to the TAC and the overall Patuxent Reservoirs Watershed restoration effort. The PC has effectively coordinated among agencies as a neutral partner. This type of coordination allows for openness among the agencies while working together. The PC has been able to dedicate considerable time to researching grant opportunities, coordinating with all the partnership agencies on their grant needs, and wading through the application processes. In addition, the PC has been able to facilitate the establishment of project teams to move forward on important initiatives such as the Reddy Branch project and the effort to engage equestrian operation owners in conservation practices.

In 2008, the contract position, funded through the WSSC, solicited eight grants totaling more than four million dollars, Unfortunately, to date, these grant requests have not been approved; efforts to obtain project funding continues. These economically difficult conditions pose another challenge: the solicitation of grant funds increase as grant opportunities decrease. A third party providing technical assistance, also a component of the contract, has taken the first steps to create a Comprehensive Watershed Plan. This plan will be beneficial and advantageous in future grant solicitation.

6.1 Activities Conducted in 2008

The following tasks were performed by the consultants:

- Routine project management tasks and reporting requirements were fulfilled.
- On January 3, Ms. Capuco met with the 2008 TAC Chair, Kristal McCormick, to plan for the January 8 TAC meeting.
- On January 4, Ms. Capuco met with Ed Gould of Our House to discuss the proposed projects on Our House property.
- During the week of January 7, Ms. Capuco prepared for and facilitated the January 8, TAC meeting.
- On January 10, Ms. Capuco met with Rick Leader of Audubon Maryland/DC to discuss the Reddy Branch projects and secure his organization's commitment to support Reddy Branch.
- During the week of January 14 Ms. Capuco coordinated with Audubon landscape architects and ornithologists on the reforestation plans for Reddy Branch.
- Also during the week of January 14, Ms. Capuco received notice from Howard Soil Conservation District that the Chesapeake Bay Trust grant for the Positively Pure Patuxent Headwaters project had been selected for funding.
- On January 15, Ms. Capuco confirmed with Patuxent Riverkeeper that the Reddy Branch project will be included in the Riverkeeper newsletter.
- Also on January 15, Ms. Capuco completed the revisions to the September TAC meeting minutes, revisions to the November Policy Board meeting minutes, and drafted the minutes for the January 8 TAC meeting.

- During the week of January 21, Ms. Capuco prepared an introductory letter for the TAC Chair to notify the Policy Board of TAC progress.
- On January 23, Ms. Capuco participated in a video conference hosted by the National Fish and Wildlife Foundation describing grant program changes.
- Also during the week of January 21, Ms. Capuco continued preparation of NFWF Small Watershed grant applications for the MNCPPC, Our House, Inc. and Howard Soil Conservation District.
- Routine project management tasks and reporting requirements were fulfilled.
- During the week of January 28, Ms. Capuco completed preparation of first drafts of the following grant applications
 - National Fish and Wildlife Foundation Small Watershed Grant for MNCPPC at Reddy Branch
 - Forest Board for MNCPPC at Reddy Branch
 - National Fish and Wildlife Foundation Small Watershed Grant for HSCD watershed-wide
 - National Fish and Wildlife Foundation Small Watershed Grant for Our House at Reddy Branch
 - Forest Board for Our House at Reddy Branch
 - Chesapeake Bay Trust Mini-Grant for Our House at Reddy Branch

Final versions of each of these grants was worked on throughout the month of February with all final grant applications submitted by February 29.

- On February 13, Ms. Capuco attended a meeting with Oscar Rodriguez, Executive Director of MNCPPC with TAC Chairwoman McCormick.
- Routine project management tasks and reporting requirements were fulfilled.
- Ms. Capuco participated with MNCPPC in a planting meeting March 3 to prepare for tree installation at Reddy Branch on March 12.
- On March 4, Ms. Capuco met with the TAC Chair at HSCD offices in Woodbine to plan for Technical Supplement review by the TAC, the April TAC meeting, and resolution of remaining issues surrounding the January TAC meeting minutes
- On March 6, Ms. Capuco prepared the April TAC meeting agenda and revised the January TAC meeting minutes.
- Throughout the month of March, revisions were made to the TAC Annual Report Technical Supplement
- On March 13, Ms. Capuco accompanied Mr. Kagan to Reddy Branch Stream Valley Park to obtain photos of trees planted
- During the week of March 24, Ms. Capuco continued April 1 TAC meeting preparation
- Also during the week of March 24, Ms. Capuco coordinated with Versar to maximize WSSC benefit from remaining contract resources.
- Routine project management tasks and reporting requirements were fulfilled.
- Ms. Capuco prepared for, facilitated and prepared minutes for the April 1 TAC meeting during the week of March 31.
- On April 4, Ms. Capuco converted the Technical Supplement to the Annual Report to a pdf file and placed it on the Capuco Consulting Services, Inc. ftp site for the TAC to review and comment.

- On April 7, Ms. Capuco prepared a draft letter to the Policy Board summarizing the April 1 TAC meeting.
- During the week of April 14, Ms. Capuco provided the minutes of the TAC meeting on April 1 for committee review, reviewed contract files to prepare for closeout, and made revisions to the Technical Supplement.
- During the week of April 21, Ms. Capuco began coordination of volunteers for care of the trees planted at Reddy Branch Stream Valley Park.
- Also during the week of April 21, Ms. Capuco worked with Howard Soil Conservation District planning the next phases of the Positively Pure Patuxent Headwaters Project – including communicating the success of the effort in identifying approximately 185 new conservation measures for implementation in the Cattail Creek watershed.
- Routine project management tasks and reporting requirements were fulfilled.
- During the week of April 28, Ms. Capuco coordinated planning meetings for the Howard Soil Conservation District (HSCD) project addressing best management practices (BMP) on small horse farms.
- Also during that week, Ms. Capuco continued incorporating comments on the technical supplement to the 2007 Annual Report from TAC members.
- During the week of May 5, Ms. Capuco began planning for outreach activities to support the Reddy Branch riparian buffer project; including meeting with Patuxent Riverkeeper staff to plan specific outreach events.
- Beginning on May 9, Ms. Capuco was no longer able to access her electronic mail while seated at a WSSC computer. This occurred because a new firewall was installed at WSSC. Repeated attempts were made to contact the appropriate IT and security staff to rectify the problem, but no access has been allowed.
- During the week of May 12, Ms. Capuco participated in meetings with Versar to discuss contract completion activities.
- Also during the week of May 12, Ms. Capuco met with Howard Soil Conservation District members and the Chesapeake Bay Trust to develop a funding plan for the next steps in implementing the HSCD BMP project.
- During the week of May 19, Ms. Capuco continued working with HSCD and Montgomery Soil Conservation District to quantify the needs identified for nutrient reduction due to small horse farm operations. Also during that week she coordinated with the MNCPPC and Montgomery DEP staff regarding comprehensive watershed planning activities that impact the Reddy Branch projects.
- On May 21, Ms. Capuco provided the draft June TAC meeting agenda to the TAC.
- During the week of May 26, Ms. Capuco coordinated with MDE staff regarding the status of the Patuxent Reservoirs Total Maximum Daily Load regulations and the Clean Water Act section 319 grant program.
- Routine project management tasks and reporting requirements were fulfilled in June.
- Routine project management tasks and reporting requirements were fulfilled.
- Assistance was provided to Howard and Montgomery Soil Conservation Districts in preparing an application for grant funding from the Chesapeake and Atlantic Coastal Bays Trust Fund.
- Attendance at a meeting with Kim Knox of the Outreach office was provided.
- Attendance at meetings regarding the DNR 2010 grant application was provided.

- September TAC meeting agenda was developed.
- Routine project management tasks and reporting requirements were fulfilled.
- Assistance was provided to Howard and Montgomery Soil Conservation Districts in completing preparation of an application for grant funding from the Chesapeake and Atlantic Coastal Bays Trust Fund.
- Attendance at meetings regarding the DNR 2010 grant application was provided.
- September TAC meeting agenda was completed.
- September TAC meeting was facilitated.
- September TAC meeting minutes were prepared and distributed.
- Draft Policy Board Meeting Agenda was prepared.
- Draft Policy Board Presentation was prepared.
- Draft TAC Annual Report was prepared.
- Routine project management tasks and reporting requirements were fulfilled.
- Assistance was provided to Howard and Montgomery Soil Conservation Districts in completing preparation of an application for grant funding from the National Fish and Wildlife Foundation.
- Attendance at meetings regarding the NFWF grant application and Chesapeake Bay Trust Environmental Education grant was provided.
- October Policy Board meeting materials were completed.
- October Policy Board meeting was facilitated.
- October Policy Board meeting minutes were prepared and distributed.
- Draft TAC Annual Report was prepared.
- Routine project management tasks and reporting requirements were fulfilled.
- Assistance was provided to Howard and Montgomery Soil Conservation Districts in continued tracking of applications for grant funding for manure management initiatives.
- A first draft of 2008 Annual Report Technical Supplement was provided to TAC members for editing.
- A copy of the Grants Summary Matrix that was provided to the WSSC Interim General Manager was provided to TAC members, and questions addressed.
- Comments on the 2008 Annual Report were received and addressed.
- A draft grant application to the Chesapeake Bay Trust was reviewed and commented upon for the WSSC Outreach office.

6.2 Grants Summary October 2008

Industry Overview: The community of grantors for source water protection and watershed restoration is relatively small. Because the Chesapeake Bay is the cornerstone of environmental protection in this region, most of the funding sources in some way are related to the Bay. There are 3 primary funders for local governments: The Chesapeake Bay Trust, the National Fish and Wildlife Foundation, and the U.S. Environmental Protection Agency (EPA) which passes its funding source through to the State of Maryland. Recently a new source was added – the Chesapeake Bay 2010 funds which are derived from Maryland taxes.

The best approach for winning grant funding is to have a well developed project that is generally known within the local environmental community that the project manager has presented at various conferences and through media releases. Usually the project lead will have taken many steps to begin implementation on its own. An example can be found in the Howard County efforts to implement watershed protection measures. County funds have been contributed to the implementation. DNR 2010 funds are being sought to expand the efforts three-fold. Early indications are that the state will grant funds for that expansion.

In the instance of the TAC efforts to seek grant funds, projects have been developed to meet the criterion of the grant request. Consequently, grantors are not under the impression that the project is ready for implementation – lowering its scoring in evaluation. Over the past 3 years grantor awareness of the TAC and the watershed has increased significantly. The reality of needing to have projects in implementation has led both MNCPPC and The Soil Conservation Districts to begin implementation. As a result, although our success has been limited to several small dollar awards, the real success is that the carrot of possible significant funding has enticed the TAC members into implementing source water protection measures regardless of award of funds.

Table 3 – 2008 Grants Summary

Date	Project Description	Amount Sought	Anticipated Recipient	Dissolution	Approximate Level of Effort
Oct-06	installing weather stations in the reservoirs to monitor the hydrometeorological conditions in the watershed	\$ 53,000	WSSC environmental	WSSC withdrew application before final submittal	60 hours

Nov-06	Developing and promoting reservoir-friendly landscaping certifications (similar to bay scapes)	\$ 33,520	WSSC Outreach	Grant program was cancelled due to federal budget constraints.	50 hours
Mar-07	To plant approximately 3000 feet of a 1st and 2nd order stream reach of Reddy Branch,	\$ 194,650	MNCPPC	Denied by grantor because they preferred to see work begin upstream	80 hours
Apr-07	To address storm water management issues in the Reddy Branch subwatershed	\$ 200,000	MNCPPC	Not submitted -- unable to meet selection criterion because no Watershed Restoration Action Strategy exists for the watershed.	10 hours
Apr-07	To produce: An open-meadow habitat by eliminating invasive non-native shrub and herbaceous species within a 1.13 acre field to encourage growth of a diverse mix of existing native grasses and shrubs to provide habitat for birds, small mammals, and other native fauna; Conversion of existing drainage swales in cropland at the headwaters of this tributary into a 1000 foot long and 10 foot wide rain garden; Creation of a 125-foot wide, forested riparian buffer along a large section of the main stem Reddy Branch, on the south side of Brookville Road	\$ 198,800	MNCPPC	Denied due to grantor's impression that Montgomery County had adequate funds to do the project itself.	40 hours

May-07	Approach property owners with Agricultural and Environmental Preservation easements, and offer incentives and assistance to establish forested riparian buffers throughout the Cattail Creek watershed	\$ 850	Howard DPZ	Grant never submitted because project evolved into the manure management initiative.	80 hours
Sep-08	To plant approximately 2 acres of stream bank with riparian buffer (Reddy Branch)	\$ 4,962	MNCPPC	Denied	10 hours
Oct-07	A survey will be mailed to owners of parcels over 2, but less than 100 acres in size in phased segments of the watershed querying whether they have horses on the land. Once identified, those landowners will be invited to a series of hands-on educational events (such as 2-hour field walks in evenings and on weekends) throughout the fall and then offered assistance to prepare applications for assistance to implement water quality improvement actions	\$4,770	Howard SCD	Grant awarded	20 hours
Oct-07	Remove Invasive plants from reservoirs forest to improve species diversity with teams of volunteers and watershed staff	\$ 22,500	WSSC Outreach	Denied	24 hours
Dec-07	To plant approximately 1300 linear feet of stream bank with riparian buffer (Reddy Branch)	\$ 33,654	MNCPPC	Denied	40 hours
Feb-08	Riparian buffer installation upstream of March planting	\$ 172,600	MNCPPC	Denied	30 hours

	location (Reddy Branch)				
Feb-08	Dam removal and riparian buffer installation Reddy Branch	\$ 198,250	Our House	Denied	50 hours
Feb-08	Manure management for small horse farms to include agricultural management assistance	\$ 116,968	Howard SCD	Denied -- grantor only awarded to small local governments and non-profit organizations in this round	20 hours
Mar-08	Dam removal and riparian buffer installation Reddy Branch	\$100,000	Our House	Denied	10 hours
Aug-08	Manure management for small horse farms to include agricultural management assistance and manure removal and composting	\$3,600,000	Howard SCD	Waiting for response	100 hours
Oct-08	Manure management for small horse farms to include agricultural management assistance and manure removal and composting	under development	Howard SCD	under development	20 hours
Nov-08	Data analysis to establish baseline conditions so measurement of improvements derived from BMP implementation can be measures	\$ 4,500	Howard SCD	under development	2 hours
Dec-08	Funds to establish demonstration garden on "WSSC property	\$ 15,000	WSSC Outreach	under development	3 hours



APPENDIX 1

PATUXENT RESERVOIRS WATERSHED PROTECTION AGREEMENT WITH AGRICULTURAL MEMORANDUM OF UNDERSTANDING AND AMENDMENTS

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

- I 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.

FATUXENT RESERVOIRS WATERSHED PROTECTION AGREEMENT

Charles I. Ecker Date 10/29/96
County Executive
Howard County

Douglas M. Duncan Date 11/6/96
County Executive
Montgomery County

Wayne K. Curry Date 10/29/96
County Executive
Prince George's County

William E. Barnes Date 10/31/96
Chairman
Howard Soil Conservation District
Board of Supervisors

George E. Lechlider Date 10-29-96
Chairman
Montgomery Soil Conservation District
Board of Supervisors

Trudye Morgan Johnson Date October 29, 1996
Executive Director
Maryland-National Capital
Park and Planning Commission

Cortez A. White Date 10/29/96
General Manager
Washington Suburban Sanitary Commission

A-6

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

Charles I. Ecker
County Executive
Howard County

11-20-98

Date

Douglas M. Duncan

Douglas M. Duncan
County Executive
Montgomery County

11/8/98

Date

AS TO FORM AND LEGALITY
COUNTY ATTORNEY

[Signature]

11/24/98

Wayde K. Curry

Wayde K. Curry
County Executive
Prince George's County

11/24/98

Date

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 30th 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

8/6/2000
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 Lechlider
George Lechlider
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 Clark Barry

Secretary-Treasurer
APPROVED AS TO FORM AND LEGALITY.

APPROVED AS TO LEGAL SUFFICIENCY
MP

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 Lechlida

George Lechlida
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 #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 7th day of June 2004

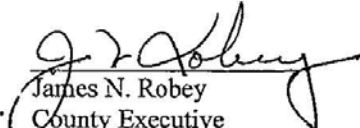
Background

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

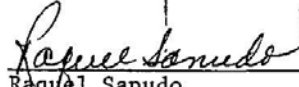
The Technical Advisory Committee (TAC) during its deliberation in the year 2000 recommended that the cost-share funds from this MOU should be spent on implementing streamside best management practices for non-agricultural zoned property-owners who are not eligible for the state and federal cost-share 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 8th 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

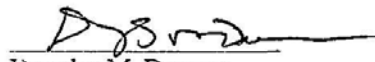

James N. Robey
County Executive
Howard County, Maryland

ATTEST:

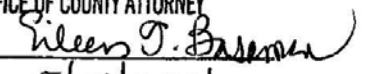

Raquel Sanudo
Chief Administrative Officer

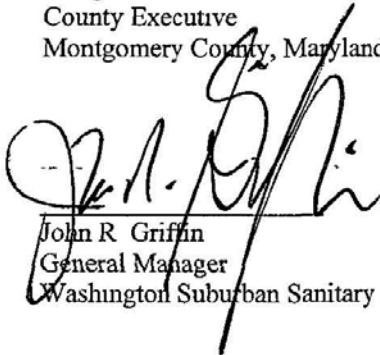
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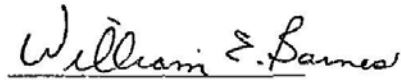

Douglas M. Duncan
County Executive
Montgomery County, Maryland

5/23/04
Date

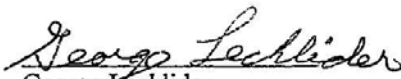
APPROVED AS TO FORM AND LEGALITY
OFFICE OF COUNTY ATTORNEY
BY 
DATE 5/21/2004


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 Lechlider
Chairman
Montgomery Soil Conservation District

3/12/04
Date

Approved as to Legal Sufficiency
this 4th day of May 2004,

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

Date

Approved as to Legal Sufficiency

Walter J. Swanson
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 2

2008 POLICY BOARD
MEETING
AGENDA AND SUMMARY

**Patuxent Reservoirs Watershed Protection Group
Annual Policy Board Meeting Summary**



Policy Board

*William Barnes
Teresa D. Daniell
Robert Hoyt
George Lechlides
Oscar Rodriguez
Ken Ulman
Charles Wilson*

*Howard Soil Conservation District
Washington Suburban Sanitary Commission
Montgomery County
Montgomery Soil Conservation District
Maryland National Capital Park and Planning Commission
Howard County
Prince George's County*

Patuxent Reservoirs Watershed Protection Group Annual Policy Board Meeting

October 16, 2008

1:30 p.m.

Washington Suburban Sanitary Commission Brighton Dam

(Incase of inclement weather, the meeting will be held in the Commissioner's Conference room (WSSC Headquarters Building) at 14501 Sweitzer Lane, Laurel, Maryland)

Welcome, Introductions, and Purpose (Policy Board Chair)

2008 TAC Accomplishments (TAC Chair)

1. Reddy Branch
2. Agricultural Management
3. Outreach
4. Partnership Coordination

Policy Board Discussion Policy Board

1. Proposed FY09 and FY10 Work Program and Funding
2. Forthcoming Challenges

Administrative Business Policy Board
1. Transfer of Chair (Howard County)

Adjournment (Policy Board Chair)





The Partnership Agreement

Policy Board –

- Receives and reviews the Annual Report
- Agrees by consensus on all recommendations and proposals
- Supports funding and other resources for the approved actions

2

A photograph of a person with long blonde hair, wearing a grey jacket and white pants, walking away from the camera through a lush green field. The person is carrying a red and black bag. In the background, there are trees and a clear blue sky. The image is used as a background for the slide content.

The Partnership Agreement

TAC –

- Representatives of the 7 parties to the Agreement and 3 MD state departments
- Evaluate existing problems and propose actions to protect the reservoirs and the watershed for:
 - Providing high quality raw water for water supply
 - Providing habitats to support high quality aquatic and riparian communities
 - Providing desirable places for wildlife habitat
 - Providing aesthetic, recreational and other benefits









On-going cost share programs:

WSSC cost share, limited to \$5000 per applicant, with other restrictions (Additional funds could be spend if the restrictions were loosened)

MDA has given each county \$10,000 to use toward cost sharing with operations that fall outside of the traditional MACS and EQIP programs. Again, restrictions limit its use.

2010 Chesapeake Bay Trust Fund:

An application has been submitted by the Howard Soil Conservation District (HSCD) and Montgomery Soil Conservation District (MSCD) for a project aimed at addressing the equine manure issue in the Triadelphia Reservoir Watershed. This application was completed with assistance from Versar and Capuco Consulting (tremendous help!). Application will use cost sharing funds to establish BMPs on the properties (minimal restrictions) and set up a regional composting facility to remove the waste from the properties and turn it into a resource for use by local residents. Total request is about \$3.5 Million.

National Fish and Wildlife Foundation:

Pending the outcome of the 2010 Grant request an application will be submitted to NFWF for the Triadelphia Reservoir Equine project. Versar and Capuco Consulting will assist with that application also.

Chesapeake Bay Trust:

The Trust funded the Equine Survey last year, the results of which formed the basis for the 2010 Trust Fund Grant. They also funded the development of a newsletter to be sent to equine owners in the Triadelphia Watershed from the Howard SCD (Montgomery already does a newsletter). Capuco Consulting assisted with the development of the grant application.

Additional Staffing:

MDA has provided an Equine Specialist to serve Howard, Frederick and Carroll Counties. Michael Calkins has extensive experience in pasture and horse management and is a welcome addition to the Howard SCD Staff.

MDA has also provided grant funds to employ a Equine Specialist for Howard County. Kristen Parris, a well known and respected equine eventer, has been hired and is going through a training phase along with Michael.



As we work with local schools to provide information about source water protection, we have become involved with an artificial oyster reef program that is sponsored by the Chesapeake Bay Foundation and the Maryland Sportfisherman's Association. We circulate 4 molds among 20-30 schools and each school builds 4-6, 125 lb. oyster reef balls during the school year. These are brought to Brighton Dam and in May, WSSC staff loads up several trucks and delivers the finished reef balls to a CBF workboat in Shadyside Maryland. The next day, representative teachers and students from some of the schools board another CBF boat to watch the reef balls being "planted" on the artificial reef in the bay just north of Baltimore. This program has engaged hundreds of students from our Patuxent Watershed Schools in hands on, "in your face" environmental education that will help us produce a new generation of environmental stewards in and around our reservoirs watershed.

We take the same message of source water protection to pre-school and elementary school children in local libraries. This presentation includes stories, the Enviroscope model or other water pollution demonstrations and a craft project. We have reached a large number of people through this program as we educate not only the children but the adults who bring them to the library.

Outreach to the Community

Annual Family Campfire

October 12, 2007



Patuxent River Clean-up

April 5, 2008



H2O Fest

Watershed Festival

April 12, 2008



Children's Craft Activity

April 12, 2008



The WSSC Community Relations Office is responsible for the Outreach activities of the TAC. The fall event is a Family Campfire at Brighton Dam, We provide a roaring bonfire, marshmallows and chocolate, entertainment and information about source water protection. Often we take this opportunity to recognize those who help with the river clean up in the spring or schools that have become certified green schools. We organize watershed neighbors, scouts and school groups who take part in the annual Patuxent River Cleanup in April. Last year over 100 adults and children cleared trash from our portion along the shoreline of the river and the reservoirs. This year saw the first annual H2O Fest held on Saturday April 12 with the theme "Thinking green to protect blue." There were over 20 local agencies, schools, scouts, and private groups that provided information of importance for the environment with activities for young and old. Next year's event will be bigger and better.

Partnership Coordination Contract Position

- Watershed Grant Preparation
 - Project Plan Development
 - Project-Specific Partnership Coordination
- Facilitation of Multi-agency Cooperation
- Administrative Support for TAC Meetings



Building The Future Through Innovative Solutions



WORK PROGRAM FOR FY09 and FY10

TABLE 3. PATUXENT RESERVOIRS WATERSHED WORK PROGRAM FOR FY09 and FY10					
PRIORITY RESOURCES PROTECTED	IMPLEMENTATION NEED	IMPLEMENTATION ITEM	AGENCY	FY 2009	FY 2010 (requested)
Reservoir/Water Supply	Reservoir and tributary water chemistry monitoring	Reservoir monitoring and lab analysis	WSSC	In-Kind	In-Kind
		5 US Geological Survey (USGS) watershed flow gauge stations	WSSC	\$50,000	\$60,000
		5 year Trend Analysis	WSSC	In-Kind	In-Kind
Stream System Aquatic Biota	Tributary biological and habitat monitoring	Conduct second round of biomonitoring program in the reservoirs watershed	IHC	\$0	TBD
		Upper Patuxent and Hawlings River	MC	\$0	TBD
		Hawlings River Restoration Monitoring	MC	\$0	TBD
Reservoir/Water Supply Stream System Aquatic Biota	Stream corridor management	Cherry Creek Implementation – Reach 2	IHC	\$30,000	TBD
		Hawlings River Project Implementation	MC	\$0	TBD
		Rocky Branch Project Implementation	MC, SC, FPC, MSCD, DNR	\$100,000	\$50,000
Reservoir/Water Supply Stream System Aquatic Biota Rural Character and Landscape Public Awareness and Stewardship	Agricultural management local cost-share initiative	Funding for local cost-share program	IHC, MC, WSSC	No additional funding	TBD
		Program oversight for voluntary implementation of agricultural HMPs	USCD, MSCD	In-kind services	TBD
Reservoir/Water Supply Stream System Aquatic Biota Rural Character and Landscape Public Awareness and Stewardship	Public outreach and involvement initiatives	Rainscapes Rebates	MC	55 percentage of county allocation	TBD

WORK PROGRAM FOR FY09 and FY10

TABLE 3 PATUXENT RESERVOIRS WATERSHED WORK PROGRAM FOR FY09 and FY10

PRIORITY RESOURCES PROTECTED	IMPLEMENTATION NEED	IMPLEMENTATION ITEM	AGENCY	FY 2009	FY 2010 (requested)
Reservoir/Water Supply Terrestrial Habitat Stream System Aquatic Biota Rural Character and Landscape Public Awareness and Stewardship	Public outreach and involvement initiatives	Earth Month, Annual Policy Board Meeting and other outreach activities	All TAC agencies	\$2,500	In Kind
		Green Schools Mentoring Partnership	WSSC and ME	In-kind services (WSSC and ME)	In Kind
Reservoir/Water Supply Terrestrial Habitat Stream System Aquatic Biota Rural Character and Landscape Public Awareness and Stewardship	Complete Annual Report	Completion and editing	All TAC Agencies	In-kind services	In Kind
		Printing and distribution	WSSC	\$200	\$200
Partnership Coordinator and grant application		Provide admin. support, coordination among partners, secure grant funding	WSSC	\$100,000	0
TOTAL FUNDING				\$582,700	



2009 Challenges

Budgetary constraints

- Impact on grantors
- Agricultural MOU funds

TMDL Implementation

- Coordination needs
- Watershed planning needs
- Relationship to other programs (i.e., MS4 permitting)

13

Continuing to Protect the Watershed





Patuxent Reservoirs Watershed Protection Group

Annual Policy Board Meeting Summary October 16, 2008

Washington Suburban Sanitary Commission Brighton Dam

Policy Board:

Charles Wilson, Chairman, Prince George's County, (represented by Jerry Maldonado)
Ken Ulman, Howard County (Represented by Josh Feldmark)
William Barnes, Howard Soil Conservation District
Teresa D. Daniell, Washington Suburban Sanitary Commission
Robert Hoyt, Montgomery County (Represented by Meo Curtis)
Oscar Rodriguez, MNCP&PC (Represented by Katherine Nelson)
George Lechlinder, Montgomery Soil Conservation District

Technical Advisory Committee:

Kristal McCormick (HSCD) – Chair, David Plummer (MSCD) – Vice Chair, Martin Chandler (WSSC), Paul Meyer (PGHD) (Represented by Frank Wise), Susan Overstreet (HCDPZ), and Howard Saltzman (HCDPW),

Absent: Bert Nixon (HCHD), Gul Behsudi (MDE), John McCoy (DNR), and Stan Wong (MCDPS).

Other Attendees:

Sandra August (WSSC), Carrie Capuco (Capuco Consulting), Bob Ensor (HSCD), Gary Gumm (WSSC), Mohammad Habibian (WSSC) Tobias Kagan (WSSC), Angela Morales (HCDPW), and Joe Steinbacher (Versar.).

Call to Order, Welcome, Introductions, and Purpose of Meeting

Jerry Maldonado called the meeting to order at 2:00 p.m.

Mr. Maldonado welcomed all present and introduced all of the Policy Board members and representatives. He stated that the purpose of the meeting is to review the 2008 accomplishments and goals. He then passed the meeting to Kristal McCormick, TAC Chair.

2008 TAC Accomplishments

Ms. McCormick began by reminding all present that it was at Brighton Dam on October 29, 1996 when the Watershed Protection Agreement was signed. She then began a PowerPoint presentation updating the Policy Board on the TAC's accomplishments for 2008 and the proposed work plan and funding for 2009-2010. She reviewed the roles of the Policy Board,

**Patuxent Reservoirs Watershed Protection Group
Annual Policy Board Meeting Summary
October 16, 2008**

and TAC. She also reviewed the priority resource list. She then introduced Katherine Nelson (MNCPPC) to present the 2008 accomplishments at Reddy Branch Stream Valley Park in Montgomery County.

Reddy Branch Ms. Nelson began her presentation by reminding the Policy Board that in FY07 they had requested to see the Reddy Branch project move to implementation; she was happy to report that it had. She reviewed that the site was chosen for installation of a riparian buffer because it was public land suffering from encroachment and manure dumping. She acknowledged that much of the planning for the project was accomplished by the WSSC contractors (Versar and Capuco Consulting) in the grant preparation process. Ms. Nelson stated that the volunteer involvement has been important. She also indicated that the deer protection has been successful because the trees were planted in protective tubes that roll around the trunk and they were sufficiently large that the branches are above the browse line. Ms. Nelson also reported that another 2.5 acres will be planted in 2009 and additional acreage is planned for 2010 and that this project has been replicated in the Rock Creek watershed. She then introduced Bob Ensor to describe accomplishments in manure management in the watershed.

Agricultural Management Mr. Ensor reported that in FY08 Montgomery and Howard Soil Conservation Districts had worked with the WSSC consultants (Versar and Capuco Consulting) to develop a 3.5 million dollar project to address horse manure on small acreage land parcels. Initial surveys (funded by a grant prepared by the WSSC contractors) had identified unmanaged manure in the watershed in amounts similar to the waste generated by a small Maryland city like Salisbury or Cumberland. Under the initiative, SCDs would be able to provide landowners assistance focused on composting the manure. Funding was sought in the form of a grant application for the 2010 Chesapeake Bay funds. The grant application was prepared by the WSSC contractors and both SCDs expressed appreciation for that assistance. Mr. Ensor also reported that an equine newsletter has now been funded by the Chesapeake Bay Trust in response to a grant application the WSSC contractors assisted with. The need for the newsletter was identified in the initial survey phase described above. HSCD anticipates providing the newsletter for the next 4 to 5 months. Mr. Ensor concluded with mention of the additional staffing received through grant funds for MDA allowing HSCD to add equine specialists to its office. Mr. Ensor then introduced Sandy August to describe outreach accomplishments in FY08.

Outreach Ms. August began her presentation with a reminder that since FY06, WSSC has taken on the outreach responsibilities for the TAC. She reported that school programs are year-round, not only during earth month. There are library programs and the oyster reef program. In FY09 the demand for participation in the oyster reef program has doubled from 15 schools in 08 to over 30 participating in 09. She reported that the program is valuable because the Chesapeake Bay is the centerpiece of environmental education in Maryland. Ms. August believes that the oyster reef activities intrigue the students in Bay restoration and subsequently entice them to participate in other less-dramatic restoration activities. Ms. August also reported on community outreach activities in FY08. In October, approximately 600 people participated at the campfire event. In April, approximately 75 people participated in a cleanup day on the lower reaches of the watershed and additional volunteers from the Isaac Walton League Wildlife Achievement Chapter participated in the upper reaches of the watershed. Also in April, 21 presenters and 200

**Patuxent Reservoirs Watershed Protection Group
Annual Policy Board Meeting Summary
October 16, 2008**

attendees participated in the H₂O Festival at Duckett Dam. Ms. August reported that she anticipates the Festival will grow in FY09. In closing, she requested that the Policy Board ensure that all TAC agencies strengthen their participation in the Festival planned for Saturday April 18, 2009.

Partnership Coordination Ms. McCormick then stepped to the podium to report on partnership coordination in FY08. She reported that the WSSC contractors (Versar and Capuco Consulting) have been the driving force behind many of the accomplishments in FY08. She reported that the WSSC contractors have been successful in coordinating with the TAC agencies in grant proposal development. She also emphasized the value of the contractor assistance in facilitating group decision-making among the TAC agencies. Ms. McCormick also expressed appreciation for the administrative support WSSC provides to the TAC both through the contract and the work of Mr. Kagan. She expressed sincere thanks for all of Mr. Kagan's assistance and wished him well in his retirement beginning in January 2009. Ms. McCormick then described challenges the partnership will face in FY09. She identified budget constraints both within the partnership agencies and within the potential funding entities as real challenges to restoration implementation. She also listed the challenges counties will face with implementation of Total Maximum Daily Load (TMDL) requirements once they are promulgated by the U.S. Environmental Protection Agency. In closing, Ms. McCormick expressed excitement for 2009 and continued progress in Patuxent Reservoirs watershed protection.

Policy Board Discussion

Interactive discussion then began among Policy Board members under the leadership of the Chairman. Ms. Daniell asked what specific grants had been applied for. Ms. Nelson reported that MNCPPC had applied for planting funds in 4 separate applications. Mr. Ensor reported that 3 separate applications were prepared for the manure management initiative and that one additional grant application was currently being prepared.

Ms. Curtis requested that Versar explain its efforts to prepare a watershed management plan for the Patuxent Reservoirs Watershed. Mr. Steinbacher reported that plan objectives have been developed to assist with protecting the source water and to support grant applications. He also reported that information gathering has occurred. A plan outline will be prepared for the January TAC meeting, in March a draft is anticipated with completion in June. Ms. Curtis emphasized that completion of a watershed management plan is required for funding assistance for TMDL implementation. She expressed appreciation that this key document will be prepared under this contract.

The Chairman then turned the Policy Board's attention to the draft work plan for FY09 and FY10. He explained that it lays out the activities the TAC agencies intend to under take in FY09 and FY10, with approved budgets listed under FY09 and budget requests listed under FY10. He emphasized that Policy Board members hopefully should fund the implementation items in their FY10 budget requests. Those dollar amounts would then be added to the table. Ms. Curtis pointed out that the watershed management plan should be added as a separate sub-task under the partnership coordination task. She emphasized the importance of its continued funding due

**Patuxent Reservoirs Watershed Protection Group
Annual Policy Board Meeting Summary
October 16, 2008**

to the nature of it being essential to success in grant funding requests. She expressed understanding that the contract funding needs to be requested for the FY10 budgets. Mr. Maldonado then asked Policy Board members to confirm that they acknowledge that the direction of the work plan is acceptable subject to budgets. Ms. Daniell expressed reservation in agreeing to a plan that had no funding specifications, but after discussion agreed to conceptually support the elements listed in the work plan with an understanding that WSSC would be briefed with an updated work plan once budget requests had been made. WSSC would then express its support of the work plan if the budgets looked acceptable.

Administrative Business

The Chair then passed to Howard County.

The meeting adjourned at 2:50 p.m.



APPENDIX 3

**2008 TAC MEETING AGENDAS
AND SUMMARIES**

Patuxent Reservoirs Watershed Protection Group
Technical Advisory Committee Meeting
WSSC Training Room (6104)
January 8, 2008 1:30 p.m. – 3:30 p.m.

Call To Order/Opening Remarks

Chair - Habibian

Administrative Business

Chair - Habibian

Approval of September 2007 TAC and November 2007 Policy Board meeting summary
Transfer to new Chair

Old Business

Work Program Update

(comments to range from 5 to 10 minutes each topic)

Reservoir and tributary water chemistry monitoring

Kagan

Tributary biological and habitat monitoring

Curtis/Saltzman

Stream corridor management

Reddy Branch

Nelson

Hawlings River implementation

Curtis

Cherry Creek

Saltzman

Hillsborough

Maldonado

Agricultural management local cost-share initiative

Plummer/McCormick

Public outreach and involvement

August

Partnership coordination

Plummer

New Business

Technical Supplement to the 2007 Annual Report

All (5 mins)

Next Meeting-Topics and Date

All

Adjournment

Chair – McCormick



Patuxent Reservoirs Watershed Protection Group

Technical Advisory Committee

Meeting Summary of January 8, 2008

TAC Members in Attendance:, Gul Behsudi (MDE), Meosotis Curtis (MCDEP), Mohammad Habibian (WSSC), Jerry Maldonado (PGDER), Kristal McCormick (HSCD), Katherine Nelson (MNCPPC), Susan Overstreet (HCDPW), Howard Saltzman (HCDPW).

TAC Members Absent: John McCoy (DNR), Paul Meyer (PGHD), Bert Nixon (HCHD), Dave Plummer (MSCD), Royden Powell (MDA), Mark Symborski (MNCPPC), Stan Wong (MCDPS).

Other Attendees: Sandra August (WSSC), Carrie Capuco (Capuco Consulting Services, Inc.), Martin Chandler (WSSC), Tobias Kagan (WSSC), Lindsay Leiterman (HCDPZ), Angela Morales (HCDPW), James Neustadt (WSSC), Nancy Roth (Versar, Inc.), Frank Wise (PGHD).

The meeting was called to order at approximately 1:35 p.m. by Vice-Chair Kristal McCormick since Dr. Habibian was not yet present.

Administrative Business

The first item of business was approval of the November 2007 Policy Board Minutes. Ms. Capuco read off three typographical changes that had been offered by Ms. Overstreet. There being no further discussion, the Policy Board minutes were approved as modified.

Ms. McCormick then called for comments on the September 2007 TAC meeting minutes. Ms. Capuco read modifications to the minutes as provided to the TAC by Ms. Curtis. During her reading, several TAC members arrived, including Dr. Habibian. Extensive discussion then followed. Dr. Habibian expressed strong concern that the amendments offered did not accurately reflect the events that transpired regarding preparation of the TMDL comment documents and the Policy Board meeting presentation. Mr. Wise offered a compromise whereby the changes offered by Ms. Curtis were modified slightly. The September 2007 minutes were then approved to read as:

“An extensive and pointed discussion followed regarding the future direction of the TAC and the best use of the Policy Board Meeting – particularly the recent successes and failures on the part of the TAC. The main focus was on whether the TAC should continue in an advisory role or be limited to sharing information only. Ms. Curtis proposed this change because the TAC could not meet its advisory responsibility. The TAC had been unable to forward comments concerning the nutrient and sediment TMDL because they had been unable to achieve consensus. Prince George's DER, Howard County Planning and Zoning, MNCPPC, and Montgomery County had all supported the draft set of consensus comments. The other TAC agencies had not commented.”

noting that Dr. Habibian's concerns will be included in the minutes of the January 2008 meeting, but not the September 2007 minutes. His concerns are shown as an endnote to this document.ⁱ

The Chair was then returned to Dr. Habibian. He introduced a report developed by the State of New York entitled *Development of Nutrient Criteria for Drinking Water Lakes and Reservoirs in New York State*. The report has been recently shared with WSSC by Mr. Wise. and Dr. Habibian provided the TAC with a copy of a few of its slides. . After briefly reviewing the document, TAC members engaged in a discussion regarding how state nutrient criteria under development may impact the watershed TMDL. Mr. Behsudi deferred the question to the TMDL group within MDE.

Dr. Habibian then informed the TAC that in the future, Mr. Chandler will act as the WSSC TAC representative.

The next item of business was the passing of the Chairmanship. Dr. Habibian expressed his good wishes for Ms. McCormick and wished all TAC members a happy new year.

Ms. McCormick then expressed her excitement in Chairing the TAC. She explained her goals to energize the TAC and to keep the Policy Board updated and more closely involved in TAC projects.

Old Business -- Work Program Update

Ms. McCormick referred the TAC to a handout which mapped the location of current TAC projects where Ms. Capuco is seeking grant funding. She then asked the TAC to go around the table and each provide an update on their TAC Work Program items.

Public Outreach and Involvement – Ms. August reminded the TAC that Saturday April 12, 2008 is the date of the Watershed Day. It will be a tented, rain-or-shine event. Sixteen partners have offered to help so far. Ms. August requested that all TAC agencies plan to attend and offer some type of information. The event will include *Wetland on Wheels*, site tours of Duckett Dam, WSSC infrastructure demonstrations, Riverkeeper displays, and scouting information. WSSC communications office will advertise the event, and site signage will promote its location in advance. Product demonstrations are being sought.

Ms. August also reported that WSSC Outreach Coordinator, Dawn Forsythe, has moved to another organization. WSSC is seeking a new Outreach Coordinator.

Agricultural Management and Local Cost-Share Initiative – Ms. McCormick reported that Montgomery County has just completed its first agreement. Mr. Kagan will be putting together a map of all of the funded projects throughout the watershed for inclusion in the Technical Supplement to the Annual Report. Ms. Curtis asked what balance remains in the funds. Ms. Capuco offered to find the balance amount.

Ms. Capuco then presented Mr. Plummer's idea to seek Chesapeake Bay Trust support to revise and distribute the booklet *From My Backyard to Our Bay* for the watershed residents. Discussion concerning reprint limitations and specific modifications that can be made to the

document followed. It was agreed that first the approval was requested to seek funding. It was granted with the understanding that during budget development the extent of changes will be clarified.

Water Chemistry Monitoring – Mr. Kagan reported that monitoring is scheduled to begin in March – dependent upon weather and water levels. 2007 monitoring was impacted by the drought and dam repairs.

Stream Corridor Management – Cherry Creek – Mr. Saltzman reported that Howard County is currently working on a 600 foot segment immediately downstream from the area that is downstream from the recently restored area. The total cost for this and the previously completed projects in the Cherry Creek watershed will be \$1.25 million. The County is seeking grant funds from MDE, but will proceed regardless. He emphasized that this is the only reservoir watershed restoration project in Howard County because the county's main focus is elsewhere.

Biological and Habitat Monitoring – Howard County – Mr. Saltzman reported that Howard County monitoring is on a five-year cycle. During FY09 the Rocky Gorge area of the Reservoir Watershed is scheduled for monitoring. Mr. Saltzman anticipates that the results will come back similar to those gathered in 2003. However, the real goal of this monitoring is to identify long-term trends.

Stream Corridor Management – Hawlings – Ms. Curtis reported that no additional funding has been allocated for restoration in the Hawlings due to its comparatively better quality than other streams in the County and because diversity is well represented in the reservoirs watershed.

New Business

At this point, the agenda was interrupted for a discussion of a new business item as presented by Jim Neustadt of WSSC's Outreach Office.

WSSC Budget – Mr. Neustadt provided the TAC with a packet providing background on WSSC's request for a substantial rate increase to pay for infrastructure. Mr. Neustadt explained that it is a nationwide issue that breaks in pipes are increasing due to the age of water systems. Discussion followed clarifying that the increase covers replacement for water service in the form of an *infrastructure renewal fee*. Mr. Saltzman asked whether the replacement will include watershed protection. Mr. Neustadt stated that he was uncertain.

The agenda then returned to Old Business

Old Business Continued

Stream Corridor Management – Hillsborough – Mr. Maldonado explained that the Hillsborough project was identified for low-impact development technologies in a geographically small area. A demonstration project design was requested for under \$20,000. Mr. Maldonado will determine if the design is still ongoing or if the work was redirected toward the phosphorus and sediment control needs.

Stream Corridor Management – Reddy Branch – Ms. Nelson provided a handout with photos of the site. Briefly, she reviewed that the site was chosen three years ago because it was a parcel with “fair” water quality, unforested, public land. A fall planting was planned, but drought prohibited it. A spring planting is planned and grant funding has been sought to augment MNCPPC funds. Ms. Nelson also reported that another branch of the stream owned by Our House, Inc. is also planned for planting and pond removal and that Ms. Capuco and she are working with Our House to seek grant funding assistance for that portion of the stream as well. Ms. Nelson emphasized that there is a great deal of potential for the Reddy branch sub shed to affect water quality in the future since the project is moving into implementation phase. A brief discussion ensued regarding further use of the research that identified Reddy Branch. Ms. Nelson stated that the data still exists and so it could be used for other applications. Ms. Nelson then explained that MNCPPC is seeking to make projects similar to Reddy Branch more routine. She invited Ms. Capuco to explain the community involvement component. Ms. Capuco described the involvement of the Patuxent Riverkeeper, Audubon, and Isaac Walton League wildlife achievement Chapter. Ms. Curtis clarified the hands-on as well as financial support being offered by IWL-WAC.

Partnership Coordination – Ms. McCormick reported that the TAC Chair and Vice-Chair had met in December and identified continued partnership coordination by WSSC as a priority requiring Policy Board attention. She requested TAC approval for the Vice-Chair to draft a letter from the Policy Board for submission to the WSSC General Manager requesting continued coordination at a level similar to that received in FY07 and FY08. During the course of the discussion, Ms. Curtis reported that the new Montgomery County Policy Board representative would be Robert Hoyt, the new Executive Director of the Department of Environmental Protection. Mr. Kagan also noted during the discussion that Mr. Brunhardt would no longer serve as the WSSC General Manager after February 28, 2008. The TAC was in agreement that the letter should be drafted.

Ms. Curtis asked how all Policy Board members would be made aware of the letter. Ms. McCormick responded that a letter will be sent to all Policy Board members following each TAC meeting. The letter will summarize the meeting and alert them of pending action items. Prior to the annual Policy Board meeting, a packet will be provided for Policy Board members so that they arrive to the meeting informed and aware of actions needing discussion and a vote.

Old Business

Technical Supplement to the 2007 Annual Report – Ms. Capuco reported that the National Fish and Wildlife Foundation released its request for proposals for the Small Watershed funds more than a month earlier than in previous years. Consequently, the Technical Supplement has been put aside until the three Small Watershed grant applications are completed. The three projects for which Small Watershed support is being sought are: Reddy Branch Stream Valley Park, Reddy Branch at Our House, and the Positively Pure Patuxent Headwaters project. Ms. Capuco explained that the Positively Pure project involves properties throughout the watershed with a small number of horses. Initial funding was sought from the Chesapeake Bay Trust to implement the project in a small area of the watershed. (Subsequent to the TAC meeting, Ms. McCormick received notification that \$2,500 in CBT grant funds were awarded). The NFWF Small Watershed funds would be used to expand the project throughout the watershed.

There being no further business, the meeting was adjourned at approximately 3:35 p.m.

Next Meeting 1:30, Tuesday April 1, 2008 in the Chesapeake Room 6104 WSSC.

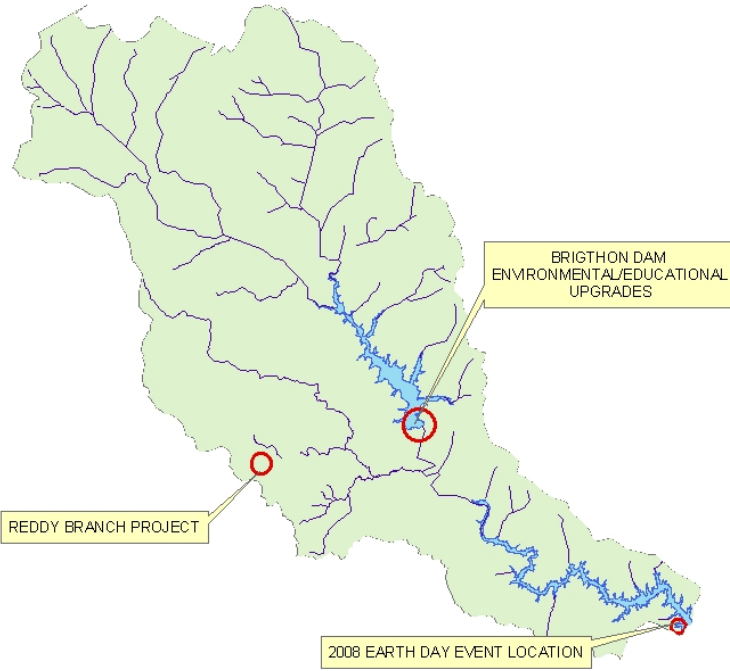
ⁱ Attachment: Dr. Habiban's response to Ms. Curtis concerns:

Ms. Curtis: "[The minutes of the meeting] should note that the TAC was unable to reach consensus on one set of comments. Therefore WSSC and Montgomery County provided separate comments and in particular, there was disagreement about the MDE's sediment TMDL. MDE had no standard for setting this sediment TMDL and presented a very weak case for why the Triadelphia reservoir was listed as impaired in the first place."

Dr. Habibian: "During the TAC meeting which included MDE presentation on the TMDL there was some interest in coordinating the comments. WSSC, the current year TAC Chair, agreed to pursue this to the extent possible. I and my colleagues were working hard to compile and develop meaningful comments. A few days before the deadline we heard that there is some interest in sending separate letters to MDE, using the TAC comments as an attachment. This was somewhat different from the idea of TAC providing comments as a group. However, we respected that decision and continued our hard work to develop good comments. Later, our lead role in coordinating the comments was ignored. Rather than giving us comments to consider, significant changes were made to our draft as a done deal. This was not acceptable to WSSC who worked so hard in developing the comments that was noted by some of you as "excellent."

Given this background, I don't plan to raise this controversial issue during the meeting, but I would respect the right of every member to express his/her concerns."

TAC PROJECTS SITE MAP



Patuxent Reservoirs Watershed Protection Group
Technical Advisory Committee Meeting

WSSC Training Room (6104)
April 1, 2008
1:30 p.m. – 4:00 p.m.

AGENDA

<u>Call To Order/Opening Remarks</u>	Chair - McCormick
<u>Administrative Business</u>	
Approval of January 2008 TAC meeting summary	Chair - McCormick
<u>Old Business</u>	
Work Program Update	(30 mins total)
Public outreach and involvement	August
Stream corridor management	
Reddy Branch	Nelson
Agricultural management local cost-share initiative	Plummer/McCormick
Partnership coordination	McCormick
Progress With Land / Easement Acquisitions Under The Consent Decree SEP	Chandler (10 mins)
Technical Supplement to the 2007 Annual Report	All (10 mins)
<u>New Business</u>	
MNCPPC Executive Director meeting	McCormick (15 mins)
FY 10 Planning	McCormick (20 mins)
April Policy Board update from Chair	McCormick (10 mins)
<u>Next Meeting-Topics and Date</u>	All
<u>Adjournment</u>	Chair



Patuxent Reservoirs Watershed Protection Group

Technical Advisory Committee

Meeting Summary of April 1, 2008

TAC Members in Attendance:, Jerry Maldonado (PGDER), Kristal McCormick (HSCD), Katherine Nelson (MNCPPC), Susan Overstreet (HCDPZ), Dave Plummer (MSCD), Howard Saltzman (HCDPW).

TAC Members Absent: Gul Behsudi (MDE), Martin Chandler (WSSC), Meosotis Curtis (MCDEP), John McCoy (DNR), Paul Meyer (PGHD), Bert Nixon (HCHD), Royden Powell (MDA), Mark Symborski (MNCPPC), Stan Wong (MCDPS).

Other Attendees: Sandra August (WSSC), Carrie Capuco (Capuco Consulting Services, Inc.), Tobias Kagan (WSSC), Frank Wise (PGHD).

The meeting was called to order at approximately 1:35 p.m. by Chair Kristal McCormick.

Administrative Business

The first item of business was approval of the January 2008 TAC meeting minutes. Ms. Capuco read modifications to the minutes. The minutes were then approved.

Old Business -- Work Program Update

Public Outreach and Involvement – Mr. Kagan reminded the TAC that Saturday April 12, 2008 is the date of the Watershed Day. It will be a tented, rain-or-shine event. The event will include *Wetland on Wheels*, site tours of Duckett Dam, WSSC infrastructure demonstrations, Riverkeeper displays, and scouting information. Mr. Maldonado stated that two people will be attending from Prince George's County. Although she was not yet in attendance at the time of Mr. Kagan's discussion, Ms. August joined the meeting approximately 30 minutes later and augmented Mr. Kagan's discussion of April 12 with information that the WSSC communications office will advertise the event using press releases and distributing over 15,000 brochures. Also, roadway and site signage will promote its location in advance.

Stream Corridor Management – Reddy Branch – Ms. Nelson provided a handout with photos of the recently planted site. Briefly, she reviewed that on March 14 approximately 200 trees had been planted on approximately 1.5 acres. Parks department staff selected the trees themselves and prepared the site for the planting. Mr. Kagan worked with volunteers from Sandy Spring Friends School and Patuxent Riverkeeper at the site the week of March 16. Volunteers were trained in invasive removal by parks staff. The connection with Sandy Spring Friends School promises to be an effective tool in working closely with adjacent landowners. A second 2 to 2.5 acre planting is planned for fall of 2008. Ms. Nelson also reported that she is waiting to hear a response on additional grant requests with the National Fish and Wildlife Foundation. Ms. Capuco offered the comment that she had recently communicated with representatives of Our

House, Inc. and that they had been contacted by the Chesapeake Bay Trust with questions on their portion of the Reddy Branch project.

Agricultural Management and Local Cost-Share Initiative – Ms. McCormick reported that as far as she knew, no additional agreements have been executed since the January TAC meeting. She then explained that HSCD, in accordance with the Chesapeake Bay Trust funded project, mailed 1,100 surveys to landowners in the Cattail Creek Watershed asking whether there were horses on their property. Approximately 250 responses had been received so far. Access to the survey is also available via the HSCD website.

Partnership Coordination – Ms. McCormick reported that a letter was sent from the Policy Board Chair to the WSSC General Manager requesting continued coordination at a level similar to that received in FY07 and FY08. She thanked Mr. Plummer for drafting the letter.

Ms. McCormick also reminded the TAC that a letter will be sent to all Policy Board members following each TAC meeting. The letter will summarize the meeting and alert them of pending action items. She requested suggestions for content of this quarter's letter.

Land Easements and Acquisitions – Mr. Kagan reported that four properties had been identified pursuant to the consent decree conditions. One will not be pursued. One is waiting for an appraisal. Two seem to be good candidates. Maryland Environmental Trust will negotiate the easement language, but it has yet to be determined which office is authorized to negotiate pricing on behalf of WSSC.

TMDL Progress – Ms. Capuco reported that Mr. Rule had recently sent an e-mail indicating that the U. S. Environmental Protection Agency had not yet approved the proposed TMDLs for the Reservoir Watershed.

Technical Supplement to the 2007 Annual Report – Ms. Capuco reported that the draft technical supplement was available for review by the TAC. She handed out four hard copies and briefly explained that the report expands on all of the topics discussed in the 2007 Annual Report. She also stated that in the correspondence section a decision had been made to include all grant applications from 2007. That made the document too large to transmit through electronic mail. After discussion, the group agreed that the draft should be posted to the Capuco Consulting ftp site for review. Comments are to be submitted before May 1, 2008.

New Business

MNCPPC Executive Director Meeting – Ms. Capuco reported that the MNCPPC Executive Director had requested a meeting with the TAC chair, Ms. McCormick, and that Ms. Capuco had accompanied her to the meeting. Briefly, the Executive Director was interested in having the TAC pursue green corridor/green infrastructure projects, hosting a dialog between agricultural land owners and the TAC agencies, opportunities for the Policy Board to visit the reservoir, having the Policy Board meet one month earlier, and ensuring that all TAC activities contribute toward measurable results.

Mr. Maldonado stated that to have the Policy Board endorsing the TAC projects will be valuable as long as TAC members remember that the Policy Board cannot bind the County Councils. Ms. Nelson offered the thought that having Policy Board confirmation of the importance of TAC projects in written form will enhance her ability to advocate for additional funds to support TAC activities.

After this discussion, the group agreed that to hold the Policy Board meeting in October at Brighton Dam would be a nice idea. Ms. McCormick asked TAC members to see if Thursday October 16 poses any conflicts for the Policy Board members. The WSSC auditorium will be reserved for an alternate location in the event of poor weather.

To ensure that an October Policy Board meeting is effective, the group agreed to review the work plan and budgets at the next TAC meeting. For several reasons, the group agreed to hold the next meeting in June. Other items to be included on the June agenda are the TMDL progress, water festival update, and possibilities of a picnic at Reddy Branch.

There being no further business, the meeting was adjourned at approximately 2:50 p.m.

Next Meeting 1:30, Tuesday June 10, 2008 in the Chesapeake Room 6104 WSSC.

Patuxent Reservoirs Watershed Protection Group
Technical Advisory Committee Meeting

WSSC Training Room (6104)
June 10, 2008
1:30 p.m. – 3:30 p.m.

AGENDA

<u>Call To Order/Opening Remarks</u>	Chair - McCormick
<u>Administrative Business</u> Approval of April 2008 TAC meeting summary	Chair - McCormick
<u>Old Business</u> Work Program Update and FY 10 Planning Group review of FY09 FY10 Work Program matrix Public outreach and involvement Stream corridor management Reddy Branch Agricultural management local cost-share initiative Partnership coordination	McCormick (60 mins) August Nelson Plummer/McCormick McCormick
Progress With Land / Easement Acquisitions Under The Consent Decree SEP	Chandler (10 mins)
Technical Supplement to the 2007 Annual Report	All (10 mins)
<u>New Business</u> June Policy Board update from Chair Policy Board meeting location and time information	McCormick (10 mins)
<u>Next Meeting-Topics and Date</u>	All
<u>Adjournment</u>	Chair



Patuxent Reservoirs Watershed Protection Group

Technical Advisory Committee

Meeting Summary of June 10, 2008

TAC Members in Attendance: Meosotis Curtis (MCDEP), Jerry Maldonado (PGDER), Kristal McCormick (HSCD), Katherine Nelson (MNCPPC), Bert Nixon (HCHD), Susan Overstreet (HCDPZ), Dave Plummer (MSCD), Howard Saltzman (HCDPW).

TAC Members Absent: Gul Behsudi (alternate, MDE), Martin Chandler (WSSC), John McCoy (DNR), Paul Meyer (PGHD), Royden Powell (MDA).

Other Attendees: Sandy August (WSSC), Carrie Capuco (Capuco Consulting Services, Inc.), Tobias Kagan (WSSC), Nancy Roth (Versar), Frank Wise, (PGHD)

Meeting was called to order at 1:35

Administrative Business – The summary of the April 2008 meeting was approved without change.

Old Business

Work Program Update – The group reviewed a draft of the FY09-FY10 Work Program matrix in anticipation of the Policy Board meeting in October. Mr. Kagan reported that water monitoring would continue for FY10 as it had in past years with in-kind support of monitoring and lab analysis and \$60,000 applied to the flow gauge stations. Mr. Kagan reported that the reservoir studies will be complete at the end of FY08 and so can be removed from the work program matrix.

Mr. Saltzman and Ms. Curtis reported on tributary biological and habitat monitoring, indicating that they would confirm where the reservoir tributaries were in their five-year cycle.

Regarding Stream corridor management, Mr. Saltzman reported that the Cherry Creek Reach 3 implementation should be removed from the matrix, but that reach 2 would be completed in FY09. Ms. Curtis reported that additional work associated with Total Maximum Daily Load (TMDL) requirements may occur in the Hawlings in FY10. Ms. Nelson reported that \$100,000 would be applied to Reddy Branch in FY09 and \$50,000 in FY10. She also noted that additional grant funds have been sought to augment those projects. Mr. Maldonado reported that the Hillsborough retrofit project could be removed from the matrix pending approval and promulgation of the TMDL) requirements.

Regarding the local cost-share program for agricultural management, substantial discussion was held surrounding the results of the recent survey that was funded by the Chesapeake Bay Trust grant. Copies of the draft summary report were provided to the TAC. Ms. Capuco suggested that the needs identified justified a request for additional budget in the cost-share funds for FY10. TAC members expressed concern over requesting additional funds when the current funds have not been depleted. Discussion then turned to the limitations on the existing cost share program and how the money is used. Comments were made expressing the need for additional staff and Ms. Curtis raised questions regarding the nutrient calculations. The group agreed that a plan for implementation was necessary before funds for implementation should be requested from the Policy Board.

Regarding Outreach, Ms. Curtis offered an addition to the Work Plan of a Rainscaping project that is ongoing in Montgomery County. She indicated that a specific dollar value could not be assigned, but assured the TAC that a percentage of the County allocation would be used in the Reservoirs watershed. Discussion then turned to the Earth Month and Green Schools projects for FY10. Ms. August indicated that the budgets would remain the same. She raised the possibility of the TAC considering sponsorship of the Maryland Association of Environmental and Outdoor Educators (MAEOE) green schools program. After discussion it was determined that if support could not be restricted to just the Reservoirs watershed, then it would not be in the best interest of the TAC members to provide financial support state-wide. Ms. Curtis offered the suggestion that the group request additional funds for a full-time outreach coordinator for the Reservoirs Watershed; however, no action on her suggestion was discussed.

Ms. August then provided handouts and a verbal description of the April H2O Festival. She highlighted the Dam tours offered by WSSC, the Smokey Bear visit, the strong participation by several local schools, and the 20 rain barrels that were raffled off. Ms. August also reported that on May 21, 63 reef balls that had been made by schools involved in the Mentoring Project were deposited in the Chesapeake Bay.

A report on the status of Reddy Branch was provided by Ms. Nelson. She indicated that the first maintenance of the planting site was recently completed. She also reported that 6 additional acres will be planted in the fall using FY09 dollars. Invasive plant removal will also be conducted in the fall.

A report on the local cost share initiative was provided by Mr. Plummer. He reported that Montgomery County entered into its first agreement recently. It was for a trough installation. Mr. Plummer stated that he feels optimistic that the survey will lead to greater use of the cost share program in Montgomery County.

A report on partnership coordination was provided by Ms. Capuco. She reported that Ms. McCormick had received notification that WSSC intended to provide one more year of contract support. Ms. McCormick circulated a copy of the letter she had received from the WSSC Interim General Manager. Ms. Nelson requested clarification regarding whether the contract with Versar was contingent upon award of grants for TAC projects. Mr. Kagan stated that it was not. TAC members then expressed desires to send a response to the letter clarifying the successes achieved under the contract support for the TAC, concerns regarding the impending

retirement of the WSSC staff supporting the TAC, and the importance of unified action in this watershed. Ms. Curtis offered an example of the work of the Alice Ferguson Foundation in the Anacostia Watershed. She also explained that the 2010 grant program recently initiated by Maryland DNR is seeking unified watershed approaches. Discussion then followed regarding the need for one unified Watershed Restoration Action Strategy to support grant seeking efforts in the future. However, no direction was given to seek planning funds currently. Ms. Nelson stated that the letter should explain that although grant funds were not yet awarded in Reddy Branch, Planning management considers the project to be a real success. It was similar to a key turning a lock to release the dollars that MNCPPC had not applied to reforestation. Ms. Overstreet reported that although Howard County Planning did not receive grant funds as a result of the contract, the grant research process for the Planning Department led to the development of the equine project that has now become a substantial advancement in the watershed. Ms. McCormick requested all TAC suggestions for the response letter be provided to her by June 19.

Progress with Land / Easement Acquisitions under the Consent Decree SEP – Mr. Kagan reported that 2 properties are waiting for permission to enter negotiations. He reported that 1 appraisal was due to WSSC the week of June 15. He also reported that a 4th property appraisal is due to WSSC in August. These four properties would represent 1 purchase and 3 easements in fulfillment of the decree.

Technical Supplement to the 2007 Annual Report – Ms. Capuco reported that the Technical Supplement is complete. It was to be posted on the WSSC web site the week of June 10.

New Business

June Policy Board Update – Ms. McCormick summarized the content of the letter to be provided to the Policy Board this quarter. The items listed included: reminders of the October Policy Board meeting and the Technical Supplement availability; information regarding the status of contract support; and summaries of the watershed day and equine projects.

Policy Board Meeting – Mr. Kagan reported that the meeting is scheduled for October 16, 2008 to be held at Brighton Dam. The rainy-day location is to be WSSC. He reminded Ms. McCormick and Mr. Plummer that the Policy Board presentation should be drafted prior to the next TAC meeting. It was agreed that the September TAC meeting will focus on the Policy Board presentation

There being no further business, the meeting was adjourned at 3:27 p.m.

Next Meeting – September 9, 2008, 1:30pm

Attachments: Revised Equine Management Summary, H2O Fest photos, H2O fest exhibitor list, and draft FY10 TAC Work Plan.

Patuxent Reservoirs Watershed Protection Group
Technical Advisory Committee Meeting

WSSC Training Room (6104)
September 9, 2008
1:30 p.m. – 3:30 p.m.

AGENDA

<u>Call To Order/Opening Remarks</u>	Chair - McCormick
<u>Administrative Business</u>	
Approval of June 2008 TAC meeting summary	Chair - McCormick
<u>Old Business</u>	
Work Program Update	1 hour
Partnership Coordination	Kagan
Response letter to GM – update from Chair	McCormick
Comprehensive Watershed Plan	Kagan
2008 Policy Board meeting – discussion will focus on presentation material to the Board	
New work plan	
Packet pre policy board	
How to power point	
Public outreach and involvement	August
Agricultural management local cost-share initiative	Plummer/McCormick
Survey Results	
BMP Implementation	
Composting Facilitation	
Social Marketing	
<u>New Business</u>	
Alternative uses of WSSC contribution	McCormick 15 min.
2008 Annual Report – discussion will focus on time table to complete report	All 15 min.
<u>Next Meeting-Topics and Date</u>	All
<u>Adjournment</u>	Chair



Patuxent Reservoirs Watershed Protection Group

Technical Advisory Committee

Meeting Summary of September 9, 2008

TAC Members in Attendance: Martin Chandler (WSSC), Meosotis Curtis (MCDEP), Jerry Maldonado (PGDER), Kristal McCormick (HSCD), Paul Meyer (PGHD), Bert Nixon (HCHD), Susan Overstreet (HCDPZ), Dave Plummer (MSCD), Howard Saltzman (HCDPW).

TAC Members Absent: Gul Behsudi (alternate, MDE), John McCoy (DNR), Katherine Nelson (MNCPPC), Royden Powell (MDA).

Other Attendees: Sandy August (WSSC), Carrie Capuco (Capuco Consulting Services, Inc.), Mohammad Habibian (WSSC), Tobias Kagan (WSSC), Kim Knox (WSSC), Angela Morales (HCDPW), Joe Steinbacher (Versar), Frank Wise, (PGHD), Stan Wong (MDPS)

Meeting was called to order at 1:40

Administrative Business – The summary of the June 2008 meeting was approved with one change. Clarification was added that Ms. Curtis reported that additional work associated with Total Maximum Daily Load (TMDL) requirements may occur in the Hawlings in FY10.

Old Business

Work Program Update

Regarding **Partnership Coordination**, Mr. Kagan reported that the partnership coordination contract had been extended for a third year for \$100,000. Mr. Kagan also introduced Joe Steinbacher of Versar who will serve as the Technical Coordinator and primary contact for Versar. He also reported that Ms. Capuco would support Versar as the subcontractor coordinating the TAC and grant activities for FY09.

Regarding the potential TAC response to the WSSC General Manager's letter of June 3, 2008 Ms. McCormick reported that a determination had been made not to send a written response, but to address her concerns at the Policy Board meeting in October.

Mr. Kagan then reported on the need to develop a comprehensive watershed plan as a support document for future grant applications. Mr. Steinbacher reported that Versar would be coordinating the task and that a conference call would be scheduled in the near future to discuss endpoints and objectives for the plan.

In planning for the October 16, 2008 Policy Board meeting at Brighton Dam Ms. McCormick reported that the presentation would summarize work performed during calendar year 2008 – namely accomplishments on buffer installation, agricultural management, and outreach. Ms. Curtis responded that because she anticipates questions will be asked regarding the long-term expectations for the technical assistance contract, the agenda should allow time for those types of discussion.

Logistical issues were then addressed. Ms. Capuco offered to send a copy of the Policy Board's invitation letter to each TAC member. She also agreed to send out copies of the work plan and bullets summarizing accomplishments.

Ms. August reported on **public outreach and involvement** plans for the H2O Festival on April 18, 2009 at Duckett Dam.

She also reported that the annual Family Campfire would be held on October 3, 2008 at Brighton Dam. Flyers for the event are available on the WSSC website under Hot Topics. The theme is "Fun, marshmallows and education on protecting our watershed." She invited a TAC representative to provide the welcome. The Riverkeeper will be present to help honor those who volunteer each year for cleanup. *Just 3 Guys* will perform music again. The event will last two hours.

Ms. August then introduced Kim Knox the new Community Outreach Coordinator. She reported that she is actively working on developing Brighton Dam education programs. She is seeking partners and "friends of." She indicated that the first emphasis will be BayScapes.

The mentoring partnership is still moving forward. River Hills High School and Lime Kiln Middle School recently received their green school designation. The oyster reef balls are also still popular. Ms. August reported that in FY08 17 schools participated. In FY09, 27 schools have signed up to participate. Howard County has purchased its own mold. Together the group will put over 100 units onto the reef this year. Ms. August reported that Best Buy may also partner with WSSC to purchase another mold and work with schools off MD 175.

Mr. Plummer reported on **Agricultural Management** programs. He summarized a recently submitted grant application to help property owners with a small number of horses implement best management practices (BMP). One component of the proposed project will be to immediately reduce nutrient pollution by removing and composting manure until BMPs are implemented. Another component will involve social marketing efforts including newsletter and booklet distribution. The newsletter has been partially funded by a second grant from the Chesapeake Bay Trust.

Discussion followed concerning possible locations for a manure composting facility. Mr. Plummer emphasized that the project goal is to establish a facility that models compliance with existing regulations. He estimated that over 1000 horses' manure could be removed from the watershed. He also emphasized that the project is consistent with changing land use trends. Ms. Curtis noted that a substantial amount to Chesapeake Bay 2010 funds have already been distributed to agricultural initiatives through the transfer of funds to Maryland Department of

Agriculture. She referenced several other grant applications that had been submitted for the same funding source and their inclusion on the agenda for the September Patuxent River Commission meeting.

New Business

More Effective Uses of WSSC Contribution – Discussion then focused on the last paragraph of the June 3, 2008 letter from the Interim General Manager of WSSC. In that letter, she encouraged “the TAC to consider more effective options and report back to the Policy Board meeting to be held later this year.” Ms. McCormick queried the TAC on what (other than the current contract position) could the partnership coordination budget be used for. Suggestions offered included: reexamination of the past prioritization; outreach to private property owners on buffer installation; and TMDL implementation coordination. Arguments were then offered that the current type of coordination is the best use of this contribution, but that the measure of success should be reexamined. It was emphasized that a consolidated watershed management plan would help guide this consideration.

Discussion also occurred regarding the availability of agricultural cost share funds that have not been used yet from the Agricultural Agreement. Questions were raised on the need to modify the Agreement. Mr. Plummer emphasized that those funds may be needed to implement the equine BMPs.

2008 Annual Report – Ms. McCormick then turned the discussion to the 2008 Annual Report. The group determined that TAC members would offer text to support the bullets in the Policy Board presentation. That text would form the basis of the annual report. Ms. Capuco offered to provide a draft Annual Report for TAC review on October 31, 2008.

Policy Board Update – Ms. McCormick summarized the content of the letter to be provided to the Policy Board this quarter. The items listed included: reminders of the October Policy Board meeting, an agenda for the meeting, a copy of the Work Plan that will be discussed, and the Campfire invitation.

There being no further business, the meeting was adjourned at 3:04 p.m.

Next Meeting – January 13, 2009, 1:30pm

Agenda items will include a review on the status of the comprehensive watershed plan, the TMDL implementation and outreach.



APPENDIX 4

2008 CORRESPONDENCE



Policy Board

- William Barnes Howard Soil Conservation District
- Robert Hoyt Montgomery County
- Andrew Brunhart Washington Suburban Sanitary Commission
- Oscar Rodriguez Maryland National Capital Park and Planning Commission
- George Lechlider Montgomery Soil Conservation District
- Ken Ulman Howard County
- Charles Wilson, Chair Prince George's County

Mr. Andrew D. Brunhart, General Manager
 Washington Suburban Sanitary Commission
 14501 Sweitzer Lane
 Laurel, Maryland 20707-5902

Dear Mr. Brunhart:

As Chair of the Policy Board of the Patuxent Reservoirs Watershed Protection Group, I am writing to seek your continued support for the Partnership Coordinator position assigned to the Technical Advisory Committee (TAC). This contract employee has been a valuable resource for the members of the TAC, and has allowed the group to accomplish many tasks that would not otherwise have been possible. Without support from the Partnership Coordinator position, many of the goals we have all set for the Patuxent Reservoirs Watershed will be arduous if not impossible to accomplish.

Based on the Policy Board's request, WSSC established the Partnership Coordinator position in the summer of 2006. In recognition of the combined resources being allocated by all the partnership members and the need for coordination and grant writing support, your decision to provide this dedicated staff position was a critical component of the continued success of the TAC. Furthermore, it represented an opportunity to move forward on many of the projects and goals the TAC has worked so hard to delineate and define over the years.

The Partnership Coordinator (PC) position has provided many benefits to the TAC and the overall Patuxent Reservoirs Watershed restoration effort. The PC has been an effective and impartial partner, coordinating among agencies, without any conflicts of interest or preconceived ideas about an agency's position on a particular issue. Full focus is on the best interest of the watershed, TAC and its goals. This type of coordination allows for openness among the various TAC agencies when working together. The PC has been able to dedicate considerable time to researching grant opportunities, coordinating with all the partnership agencies on their grant needs, and wading through the grant application processes. Finally, the PC has been able to facilitate the establishment of project teams to move forward on important initiatives such as the Reddy Branch project and the effort to engage equestrian operation owners in conservation practices.

The Policy Board and TAC are grateful for your forethought in providing the PC position as a valuable resource to our collective restoration efforts. However, we are concerned over the uncertainty of this position beyond the end of this fiscal year, particularly in light of the anticipated retirement of the WSSC staff person assigned to the TAC, Mr. Tobias Kagan. Losing both of these staff resources during the coming year will be debilitating for the TAC and the momentum that has been created toward reaching our restoration goals.

In closing, on behalf of the Policy Board, we request that you continue WSSC funding for the PC position in order to support the partnership we have all worked so hard to foster. Thank you for your time and consideration regarding this matter. If you have any questions regarding the Policy Board's request, please contact the TAC Chair, Kristal McCormick of the Howard Soil Conservation District at 410-489-7987.

Sincerely,

Charles W. Wilson
 Charles W. Wilson
 Policy Board Chairman

Technical Advisory Committee

- Gul Behsudi, MDE Meosotis Curtis, MCDEP Mohammad Habibian, WSSC
- Jerry Maldonado, PGDER Kristal McCormick, HSCD John McCoy, MD-DNR
- Paul Meyer, PGDH Bert Nixon, HCHD Susan Overstreet, HCP & Z
- David Plummer, MSCD Royden Powell, MDA Howard Saltzman, HCDPW
- Stan Wong, MCDPS



DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett
County Executive

Robert Hoyt
Director

February 6, 2008

Ms. Kristal McCormick, Chair
Technical Advisory Committee
c/o Carrie Capuco, Committee Liaison
Washington Suburban Sanitary Commission
Environmental Services
14501 Sweitzer Lane
Laurel, Maryland 20707

Dear Ms. McCormick:

Thank you so much for your letter. I appreciate your taking the time to provide me and the other members of the Policy Board with an update on Technical Advisory Committee (TAC) activities. I see from the list provided in your letter that the TAC will be busy and productive under your leadership as Chair. I assure you that the Department of Environmental Protection will continue to support the TAC as it moves forward on the Work Plan for 2008.

Thank you for your commitment to protecting the Patuxent Reservoirs and their watersheds. I look forward to meeting you at the Policy Board meeting, if not sooner.

Sincerely,

Robert G. Hoyt
Director

Office of the Director

255 Rockville Pike, Suite 120 • Rockville, Maryland 20850 • 240-777-7770 • 240-777-7765 FAX
www.montgomerycountymd.gov



MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

February 26, 2008

To: Amanda Bassow
Program Director, Chesapeake Programs
National Fish and Wildlife Foundation

via electronic mail: Amanda.Bassow@nfwf.org

Dear Ms. Bassow:

Attached is our application for support from the National Fish and Wildlife Foundation Chesapeake Bay Small Watershed Grants Program. I am delighted to present this collaborative project for your consideration. If there is further information we can provide, please contact Katherine Nelson at 301-495-4622.

Sincerely,

A handwritten signature in red ink, appearing to read "Mary Dolan".

Mary Dolan
Planner Supervisor

MD:KN:ss
Attachment

cc Katherine Nelson, M-NCPPC Environmental Planning

**2008 Chesapeake Bay Small Watershed Grants Application
Deadline: February 29, 2008**

APPLICANT INFORMATION:

Name of Organization: Maryland National Capital Parks and Planning Commission

Street Address: 8787 Georgia Avenue

City, State, Zip: Silver Spring, MD 20910

Tax Status (e.g., government agency, 501(c)(3), for-profit, etc.): local government

Tax ID#: 5266001550

Organization's fiscal year (mm/dd/year to mm/dd/year): 07/01/ to 06/30

Project Officer: Katherine Nelson

Phone: 301-495-4622

Fax: 301-495-1303

E-Mail: Katherine.Nelson@mncppc-mc.org

Financial Officer: Patricia Barney

Phone: 301-454-1540

Fax: 301-454-1545

E-Mail: Patti.Barney@mncppc.org

May NFWF circulate your application to other potential funding sources? (yes) (no)

PROJECT INFORMATION:

Short Project Name: Riparian Buffer Installation in the Headwaters of Reddy Branch

Subwatershed of the Patuxent River

Project Start Date: 08/10/08

Project End Date: 07/1/11

Watershed: Reddy Branch – Basin Code 02131107 Sub basin Code 021311070944

City: Olney

County: Montgomery

State: Maryland

Latitude: 39.180433 Longitude: 77.0701309

[U.S. Congressional District](#) in which your project is located: 4th

Grant Category (*check one*):

Project Planning and Design Grant (\$10,000-\$30,000)

Implementation Grant (\$20,000-\$200,000)

Program Goal (*check those goals that your project addresses*):

Watershed Restoration

Watershed Conservation

Watershed Planning

GRANT REQUEST:

1.	NFWF Funds Requested:	\$109,610.00
2.	Total non-Federal Partner Contributions (<i>minimum of 25% of total</i>):	\$62,990.00
3.	Federal Partner Contributions (if applicable):	\$0
4.	Total Project Cost (sum of items 1, 2, and 3 above):	\$172,600.00

PARTNER CONTRIBUTIONS: Please list the names of partner organizations, the value of their contribution, indicate whether the contribution is cash or in-kind, and indicate if the sources is Federal or non-Federal.

Project Partner	Amount	Cash/In-Kind	Federal (Y/N)
Washington Suburban Sanitary Commission staff	8,000	In-Kind	N
WSSC - Versar, Inc.	5,200	In-Kind	N
WSSC - Capuco Consulting Services, Inc.	9,600	In-Kind	N
MNCPPC staff	16,000	In-Kind	N
MNCPPC -- Highway Services Inc.	7,590	Cash	N
Patuxent Reservoir Protection Group		In-Kind	N
Gold Leaf Group, Inc.		In-Kind	N
Maryland DNR		In-Kind	N
Our House, Inc.		In-Kind	N
Montgomery County Soil Conservation District		In-Kind	N
Patuxent Riverkeeper		In-Kind	N
Audubon		In-Kind	N
IWL-WAC		In-Kind	N
Belmont ES		In-Kind	N
Rosa Parks MS		In-Kind	N
Sandy Spring Friends School		In-Kind	N
O'Doherty Group Landscape Architecture		In-Kind	N
Montgomery County DEP		In-Kind	N
Maryland Department of Environment		In-Kind	N
Patuxent River Tributary Team		In-Kind	N

PROJECT BUDGET

Budget Category	CB CIG Funds Requested	Anticipated Partner Contributions	Justification (Please explain need for line item.)
Salaries		16,000	<i>MNCPPC staff costs for project coordinator (NELSON) and parks experts in botany and parks management</i>
		4,000	WSSC - KAGAN
		4,000	WSSC - AUGUST
		4,000	MDEP - CURTIS
		7,500	PATUXENT RIVERKEEPER

		2,000	OUR HOUSE
		1,600	IWL-WLA
Benefits		0	
Travel		0	
Equipment		0	
Supplies/ Materials		1,500	Maryland Association of Forest Conservancy District Boards -- Trees
	15,910		NFWF—Trees, shrubbery, and deer protection
Contractual Services	90,000	7,590	Site preparation, plant and deer protection installation, site maintenance for 3 years to be conducted with MNCPPC parks contractor and volunteers.
		5,200	WSSC to Versar, Inc. for site assessment and planning
		9,600	WSSC to Versar to Capuco Consulting for project planning, outreach and partnership coordination
Printing	3,000		signs
	500		Outreach mailings
Other direct project expenses	200		Refreshments for volunteers
TOTALS	109,610	62,990	

* List each item of tangible, nonexpendable personal property that has a useful life of more than one year and a unit cost of more than \$5,000 and its unit cost.

2008 Chesapeake Bay Small Watershed Grants Program Proposal Narrative

I. Project Abstract:

Project description -- In the Reddy Branch a subwatershed of the Chesapeake Bay, the Maryland National Capital Parks and Planning Commission (M-NCPPC) proposes to plant native trees and shrubs to restore riparian buffer along approximately 1000 feet of a 1st order reach of Reddy Branch. M-NCPPC owns 2.3 acres, which is part of Reddy Branch Stream Valley Park. Reforesting these acres will require approximately 460 trees measuring 1.5 to 2 inches dbh, 130 shrubs, and deer-protection measures. The site requires preparation, stream bank stabilization, and three to five years of post-planting maintenance to control invasive plants. Community members will be engaged in the project through volunteer participation in planting and maintenance, distribution of informational flyers, and display of signage. The purpose of the project is to improve water quality, restore vital habitat, prevent pollutants from entering the stream, prevent park encroachment, implement existing state and regional strategies for protecting the watershed, and to implement a social marketing initiative to motivate stewardship of the watershed by Olney-area residents and businesses. Further, Reddy Branch is a tributary to the Rocky Gorge Reservoir, one of two drinking water supply reservoirs in the Upper Patuxent. After a small portion of the water from the Patuxent is removed and treated for drinking water, the remaining percentage (over 90%) flows to the Chesapeake Bay.

Final product(s) -- Upon completion of this project, water quality in Reddy Branch will improve through the reduction of non-point source pollution by:

- Creation of an 80-125-foot wide, forested riparian buffer along 1000 linear feet of the main stem Reddy Branch in the Patuxent River watershed
- Filtering agricultural nitrogen through multi-species riparian forested buffers, reducing total suspended solids (TSS), total nitrogen (TN) concentrations, and total phosphorous (TP) concentrations to receiving waters
- Reduction of highway runoff
- Providing shade cooling areas of the existing stream for enhanced aquatic habitat, better nutrient cycling, reduction of algae, and increasing dissolved oxygen concentrations
- Reducing soil and stream bank erosion
- Encourage growth of diverse native grasses and shrubs to provide habitat for birds, small mammals, and other native fauna
- Prevent active agriculture and dumping of manure currently taking place in the stream buffer area

Also upon completion of the project, public awareness of the watershed will increase due to:

- Volunteer opportunities for the residents and businesses of the Olney-area to increase their involvement with protection of the Patuxent watershed
- Information sharing through the local schools, Patuxent Riverkeeper newsletter, press releases and signage
- Participation in the riparian buffer installation and maintenance by the Issak Walton League Wildlife Achievement Chapter, Patuxent Riverkeeper, Sandy Spring Friends School and Audubon MD/DC.

II. Proposal: A riparian buffer on Reddy Branch is a high priority project: (1) the state and three counties identified the Patuxent Reservoirs Watershed as needing multi-agency protection; (2) Despite extremely low impervious levels, Reddy Branch is rated in “fair” condition by Maryland Biological Stream Surveys; (3) the region has a rural character and landscape, the stream is within walking distance of the community of Olney, (4) the land is publicly owned.

A. Project Priority: Restoring the riparian forest buffer at Reddy Branch (in the Hawlings River Watershed) was made a top priority in 2005, by the *Patuxent Reservoirs Watershed Protection Group* Policy Board and Technical Advisory Committee (TAC). Through interagency cooperation, this unique cooperative partnership has developed a strategic goal to protect the Patuxent Reservoirs watershed. In 2005, the TAC determined that establishing and maintaining 35-foot forested riparian buffers on all streams in the watershed would be the highest priority implementation project. All key decision-makers are already involved.

In 2003, a Watershed Restoration Study was conducted by the Montgomery County Department of Environmental Protection (DEP) to identify opportunities to enhance and protect aquatic and riparian habitat in the Hawlings River watershed and to reduce sediment and associated nutrient loadings to the Rocky Gorge Reservoir. This study was initiated in support of Montgomery County’s commitment as a signatory of the *Patuxent Reservoirs Watershed Protection Agreement* to protect the watershed, its tributary streams, and the Rocky Gorge Reservoir.

Reddy Branch was selected by the TAC partially because the Reddy Branch Stream Valley Park is publicly owned. In addition, one side of the stream is completely forested with a mature, high quality forest, but one side of the stream was previously part of a farm and lacks a forested buffer. Approximately half of the area proposed for reforestation is still being cropped, and the remainder, although recently abandoned is still being used as a disposal area for nearby horse farms. This area includes some moderately steep (15-25%) slopes and over an acre of wetlands. The channel is highly eroded along its entire length. The Reddy Branch riparian buffer project will provide the best multi-barrier approach based on known research of proven field methods for long term source water protection¹ – addressing a complete subwatershed of the Hawlings River which ultimately flows through the Patuxent and into the Chesapeake Bay.

The mainstem of Reddy Branch (HUC # 021311070944, sub-basin name – Reddy Branch) parallels the south side of Brookville Road. The stream passes through a grass meadow immediately upstream and adjacent to Reddy Branch Stream Valley Park and a large contiguous forest. An unnamed tributary to Reddy Branch flows northward toward Brookville Road. The west side of the stream is bordered by croplands, grass meadow, and residential lawns; the eastern side of the stream is forested and part of Reddy Branch Stream Valley Park. A large section of mainstem Reddy Branch, on the south side of Brookville Road, passes through an agricultural and residential area. It is bordered on the west side by Zion Road. Half of a community park drains northward away from Olney Laytonsville Road (MD Route 108) into a small tributary to Reddy Branch (see map).

¹ (Carlton 1990; Dunne and Leopold 1978)

Motivating the Olney-area community to be stewards of Reddy Branch is one step toward the TAC's larger goal to increase public awareness and stewardship of the Reservoirs Watershed. Identified in 1997 as one of the priority resources of the watershed, public awareness and stewardship have been ongoing challenges for the TAC. Using the resources of Patuxent Riverkeeper, working with the local schools such as Sandy Spring Friends School, and involving well established citizen groups such as Audubon and the Isaac Walton League Wildlife Achievement Chapter is intended to increased participation in stewardship activities by the Olney community.

B. Objectives: Installing a riparian buffer on Reddy Branch will contribute to significant improvements in habitat and water quality and will achieve the following objectives:

1. Improve water quality
2. Restore vital habitat
3. Reduce significant amounts of nutrient and sediment load
4. Continue in the implementation of the Patuxent Reservoirs Watershed Protection Strategy
5. Motivate stewardship of the watershed by members of the community.

C. Overall Context: The anticipated outcomes resulting from the installation of a riparian buffer at Reddy Branch address specific Small Watershed Grant program goals. The goals addressed include:

Improvements to the water quality -- Reddy Branch sub basin has been identified as having a biological impairment. Site assessments have found the following:

- The meadow provides inadequate riparian buffer protection and invasive species (i.e., multiflora rose) are becoming established, deer browsing, mowing and active agriculture prevents forest from expanding along the stream, and streambank erosion is evident in localized areas.
- Croplands, grass meadow, and lawns extend to the streambank offering little riparian buffer protection. Horse manure from the neighboring farm has recently (fall 2006) been spread in the meadow adjacent to the stream.
- An abandoned farm field is located next to the unnamed tributary allowing invasive species to becoming well established in large areas.
- The headwaters receive drainage from cropland through low-lying swales. Uncontrolled runoff from the fields causing streambank erosion.
- A large section of Reddy Branch, on the south side of Brookville Road, passes through an agricultural and residential area offering little riparian buffer protection. Invasive species have also become established along portions of the stream.

Riparian buffer installation and the site preparation associated with it will mitigate these conditions.

Restoring vital native animal and plant habitat through

- Removal of 10,000 square feet of invasive plant species
- Reestablishment of approximately 590 native plants that will serve as a sources of food and shelter for native birds and animals (observed: woodcocks, both oriole species, prairie warblers, osprey, bald eagle, red shouldered hawks, red throated humming birds, river otter, raccoon, red fox, gray fox, gray squirrel, chipmunks, painted turtles, box turtles, black, garter and ring neck snakes, spotted salamander, and marbled salamander).

- Cooling of the stream to improve habitat
- Significant reduction of nitrogen and sedimentation deposition resulting in improved habitat
- Prevent additional pollutants from entering the stream
- Reduce significant amounts of nutrient and sediment load
- Continue in the implementation of the Patuxent Reservoirs Watershed protection strategy
- Motivate stewardship of the watershed by members of the community.

Engage landowners on a new level about the importance of protecting their riparian forest buffer

- Foster and strengthen relationships with the Patuxent River protection groups
- Broaden public understanding of the value of riparian forest buffers and their role in sustaining and restoring watershed health by showcasing a landowner initiative to establish riparian forest buffers

Riparian buffer installation at Reddy Branch is an implementation step in the furtherance of multiple regional watershed plans, including the Patuxent River Tributary Strategy. At least 18 studies have been conducted on the Patuxent Reservoirs Watershed and Hawlings River over the past twenty years. During 2007, TMDLs were developed by Maryland Department of the Environment for the Reservoir Watershed, which impact Reddy Branch. Also during 2007, multi-year studies on the watershed's forestry management, sedimentation, and oxygen demand were completed by Maryland Department of Natural Resources and Maryland Geologic Survey.

In 1996, the Patuxent Reservoirs Watershed Protection Agreement was signed by Howard, Montgomery, and Prince George's Counties, Howard and Montgomery Soil Conservation Districts, MNCPPC, and the WSSC creating a Policy Board and Technical Advisory Committee (TAC) to work together to protect watershed resources. Both the Patuxent River Functional Master Plan and the Olney Master Plan support this type of land use and restoration.

Riparian buffer installation at Reddy Branch is a continuation of a long-term coordinated project to increase riparian buffers in the Reservoirs watershed. In 2006, WSSC engaged contract support for project planning and design for the Reddy Branch subwatershed. Upon initial examination, it was discovered that a forest conservation easement was established on a parcel of private farmland adjacent to parkland when subdivisions were made. Restoration of this forest area is a portion of the project. Additional Chesapeake Bay Trust funding is being sought from another source for creating an 80-125-foot wide, forested riparian buffer along the stream for approximately 1750 linear feet. Simultaneous with the riparian buffer activities being coordinated by the TAC, Our House, Inc., (www.our-house.org) a non-profit corporation is working with the TAC to establish a 21 acre forest on its portion of the Reddy Branch banks.

D.Methodology and Work Plan: This project will be implemented in compliance with M-NCPPC guidelines.

Site preparation – Site preparation will be conducted by M-NCPPC, a qualified contractor, with assistance by volunteers from Our House, Inc., Sandy Spring Friends School and members of the community. It will consist of removing any undesirable and exotic invasive species. Removal

will be achieved through a combination of mechanical and chemical treatments. No permits are needed to prepare the site.

Planting – Once planting stock has arrived, it will be carefully inspected for health and viability. A forestry resource professional will stake out the placement of the plant stock throughout each site according to the soil, space, moisture and light requirements of each plant species to achieve an optimal riparian community composition. Based on a 2001 Maryland Department of Natural Resources study, acceptable stocking levels for trees range from 200 to 400 trees per acre for a riparian planting site. This grant request is for 200 trees per acre.

In October 2008, volunteers from the community, TAC agencies, Issak Walton League Wildlife Achievement Chapter, Patuxent Riverkeeper and Audubon MD/DC assisted by Highway Safety Inc., MNCPPC's contractor, will work together install a fenced deer exclosure around the project areas, plant a mixture of shrub and tree species to provide forested buffer. They will also install plastic tree tubes to protect the plantings from deer browsing.

Maintenance – Maintenance will consist of continued removal and suppression of exotic invasive species. Volunteers and MNCPPC contractors will work together to maintain the riparian buffer for five years after the planting. Regular mowing will minimize the competition for nutrients and resources between existing vegetation and the newly planted shrub and tree stock. Further herbicide treatments and continued weeding will allow planting stock to reach maturity and successfully compete with exotic invasive species. While working on this area MCSCD will work with private landowners to develop nutrient management plans and other agricultural best management practices for this area as well as others. A comprehensive management approach will be prepared to cover the entire sub-watershed.

It is anticipated that maintenance of the Reddy Branch riparian buffer would become one of the many April clean up sites along the Patuxent each year. Further, with involvement of established, significant volunteer organizations such as Patuxent Riverkeeper, Isaac Walton League and Audubon, regeneration of volunteer pools will be likely if initial volunteers move on to other projects.

Monitoring -- Historical stream monitoring data exists and will serve as a baseline for measuring success. In addition, The WSSC is in the 16th year of monitoring reservoir water quality to provide data for technical analysis and long-term trending to support protection of the reservoirs and drinking water supply. The reservoirs are monitored for phosphorus, nitrogen, total organic carbon, pesticides, metals, turbidity, fecal coliform and chlorophyll. In addition, in-situ transparency and profile measurements of pH, conductivity, temperature, reduction-oxidation potential and dissolved oxygen are performed. Montgomery County Department of Environmental Protection (DEP) monitoring in the Patuxent watershed is next scheduled for 2009.

Outreach -- Significant community outreach and education is planned for this implementation phase of the Reddy Branch project. Outreach has been led by WSSC and its contractor, Montgomery DEP, and Patuxent Riverkeeper. Activities underway in preparation for the installation include:

- Publication of an article in the in Patuxent Riverkeeper newsletter
- Display for the 2008 Earth Day Water Festival at Supplee Recreation area

- Outreach and contact to the schools introducing the project

Activities that will occur before the buffer installation in October 2008

- Public meeting hosted by Patuxent Riverkeeper to present project idea to Olney residents
- School handout prepared by Patuxent Riverkeeper explaining the project
- Press releases to local media outlets

Following the buffer installation, educational signs will be prepared and installed at each demonstration area. Educational-hands on sessions will be conducted during site preparation, planting and maintenance days and interactive educational displays will be prepared for posting on the WSSC and MNCPPC websites as well as the Brighton Dam Nature Center.

E. Community-based Collaboration/Partnership: The process used to identify appropriate project partners and to engage stakeholders who might hinder or help the success of the riparian buffer at Reddy Branch has been deliberate and has taken several years. In 1996, when the Patuxent Reservoirs Watershed Protection Agreement was signed by representatives from 6 government agencies, they began to work together to protect watershed resources. Through interagency cooperation, this unique cooperative partnership has developed a strategic goal reaching beyond meeting the Clean Water Act provisions for fishable and swim able waters, to protecting the Patuxent Reservoirs as envisioned in the Safe Drinking Water Act. The Reddy Branch project is overseen by the Patuxent Reservoirs Protection Group Policy Board, which meets annually. In November 2006, it directed the TAC to make this project an example of successful coordinated activity among the signatories to the protection agreement. To that end, broad project oversight is coordinated by the TAC, which meets quarterly. Project progress has been a regular item on the TAC agenda for two years and will continue to be throughout project implementation.

Volunteer organizations were sought to support this project deliberately. To clearly connect the Reddy Branch to the Chesapeake Bay, Patuxent Riverkeeper was engaged on the project at its conception. One of the project outcomes is the increase in Riverkeeper volunteers in this watershed from 0 to 50. Other volunteer groups have become partners as their leadership gained interest in the project. Key technical assistance providers such as Versar have been contracted for assistance by WSSC and MNCPPC.

F. Partner Justification: MNCCP staff will coordinate the restoration activities with contractor assistance. Project communication will flow on a regular basis, with routine project meetings bi-monthly. Ms. Nelson will report to the TAC the progress of the project at each quarterly TAC meeting. The WSSC Outreach Office will retain responsibility to assist with community outreach in conjunction with the Patuxent Riverkeeper and nearby Belmont Elementary School, a participant in WSSC's Green Schools Partnership Program. Attachments to this proposal include a list of partner organizations.

For community volunteers, Patuxent Riverkeeper members, Our House, Inc., and Gold Leaf Group, (a local business) it is important to MNCPPC and the TAC that Reddy Branch offer hands on – meaningful and educational experiences. Volunteers will assist with site preparation, planting, and maintenance activities. All volunteer on-site activity will be coordinated by a qualified professional. Our House, Inc. and Gold Leaf Group have the capability to provide

heavy machinery and qualified laborers to assist with the site preparation, planting, and maintenance.

County and state partners have offered technical assistance throughout the entire project. Landscape design, engineering, and planning assistance have all been offered to each phase of this project that the Targeted Watershed Initiative would fund as well as other phases of the project. Soil Conservation District staff will work directly with private landowners when needed, DNR and MNCPPC conservationists will provide wetlands restoration-planning assistance, and MDE and Montgomery County DEP will provide technical guidance and engineering oversight. WSSC has been providing direct funding for project management since August 2006. This funding continues through August, 2008 for a total value of approximately \$200,000. This funding provided site assessments, coalition building, and project planning services.

G. Dissemination: The installation of a riparian buffer at Reddy Branch has been planned to improve the subwatershed and to serve as a replicable demonstration for the Patuxent Reservoirs watershed. This project is the first of this kind to be planned, coordinated and implemented by the TAC. TAC members are already planning duplicative projects for implementation. The project will be extensively reported in the TAC Annual Report and Technical Supplement. Second, the project is the first-known in the reservoir watershed where so many government agencies are offering resources and working together. Lessons learned through its implementation will be shared with the Potomac watershed protection group and other WSSC operational departments. Third, the general public will have access to information on the riparian buffer planting implementation steps and successes through signage on site and an exhibit at the Brighton Dam nature center.

H. Technical Assistance Needs: *[This element may be included as an appendix and will not count towards the page limit.]* This project has been reviewed by officials in three counties, Maryland DNR and MDE. Members of the TAC strove to assemble the technical expertise necessary to successfully implement the project. Forestry and soil conservation advice have been provided by MSCD, DNR and MNCPPC have provided stream ecologists, ecologic assessment assistance has been provided by Versar under contract to WSSC, planting advice has been provided by MNCPPC and Versar, project planning has been provided by MNCPPC, MDEP, WSSC and contractors. Upon implementation, financial management will be provided by MNCPPC. If unforeseen circumstances arise, additional assistance will be requested from NFWF and NEMO.

III. Evaluation

Adaptive Management: This project is well suited to adapt to changes under the guidance of the integrated, multidisciplinary management team that guides the project (the TAC). The partners will monitor the project's effectiveness by assigning teams to visually monitor the reforestation, post-planting sampling, and ongoing water quality monitoring at the Rocky Gorge reservoir. This information will be used to adjust the management of the restoration areas and the planning for the next phases of restoration.

Mid- course corrections will be discussed in the quarterly TAC meetings – with partners such as Patuxent Riverkeeper and Our House, Inc. invited to attend. The decision to make a mid-course change will be in the control of MNCPPC as coordinators, however it is anticipated that MNCPPC will consult with all partners prior to significant changes in approach.

Potential Negative Impacts: In this particular topography it is difficult to imagine negative impacts of the riparian buffer. The most likely problems will result from installation of the deer exclosures. Neighbors could be unhappy with deer exclosures because it will increase the deer browsing in other areas. The existing forest could be impacted by the installation of deer exclosures as well. Additionally, removal of invasive plants might leave exposed soil, however, mulch is intended to address that risk. There could also arise a one-time siltation problem at the time of planting. Necessary mitigation measures would have to be implemented to minimize the risk.

External Effects: The most likely factor that may affect the buffer installation would be extreme weather following installation of the buffer. Extreme weather could necessitate replanting if a significant portion of the plants are destroyed. In addition, if there is a dry summer following the spring planting, watering could be an issue.

Transferability: The Reddy Branch buffer has been planned not only to improve the subwatershed but also to serve as a replicable demonstration for the Patuxent Reservoirs watershed. First, the project is the first of this kind to be planned, coordinated and implemented by the TAC. TAC members are already planning duplicative projects for implementation. Second, the project is the first-known in the reservoir watershed where so many government agencies are offering resources and working together. Lessons learned through its implementation will be shared with the Potomac watershed protection group and other WSSC operational departments. Third, the general public will have access to information on the riparian buffer planting implementation steps and successes through signage on site and an exhibit at the Brighton Dam nature center.

- **Evaluation Logic Framework**

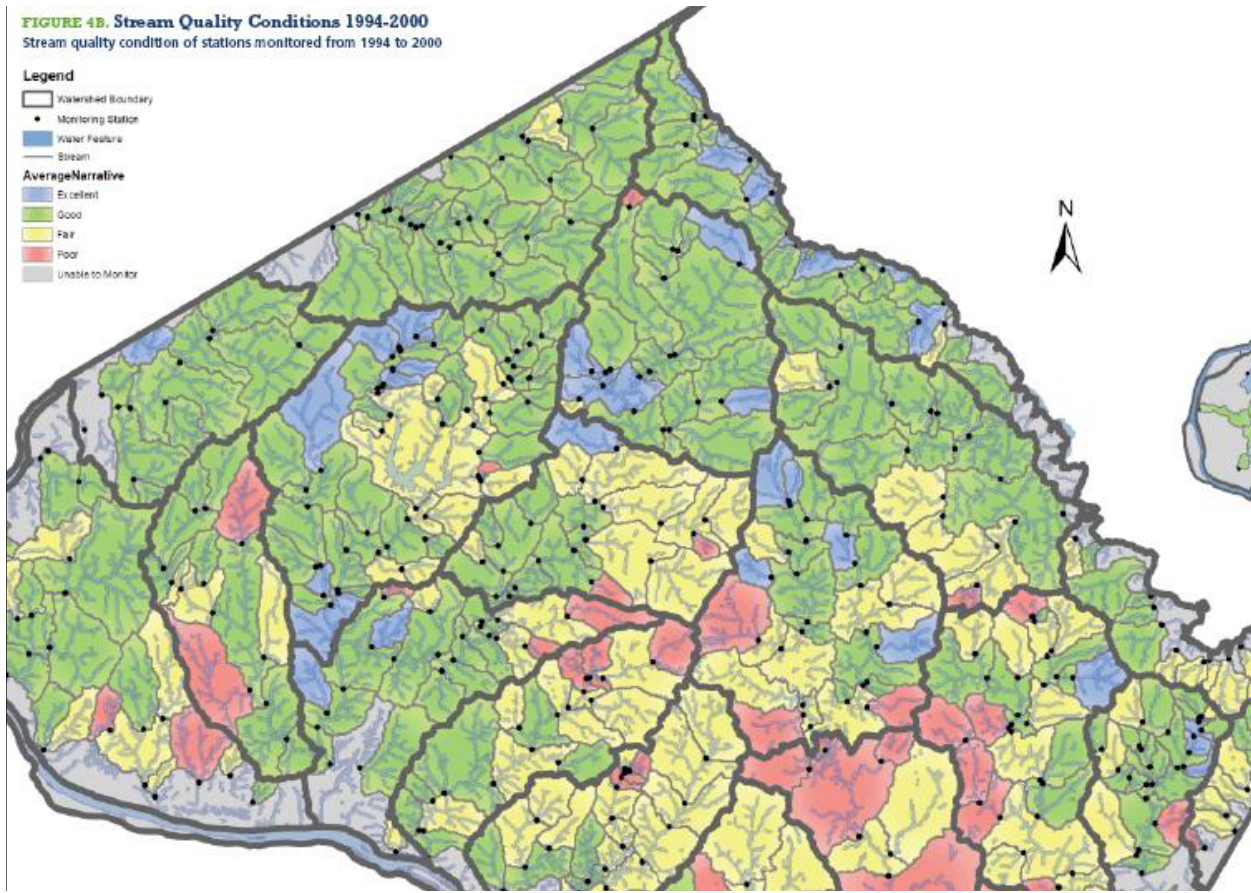
Activities →	Indicator →	Baseline →	Projected Project Output →	Projected Post-Project Outcome
Site preparation – invasive removal	Feet of invasives removed	0	10,000 square feet of invasive species removed	10,000 square feet free of invasive species
Plant trees measuring 1.5 to 2 inches in diameter	Number of trees	0	460	460
Install deer protection	Square feet protected	0	10,000 square feet	10,000 square feet
Plant native shrubs	Number of shrubs	0	130	130
Streamside buffer installation	Square feet of buffer	0	100,188 square feet	100,188 square feet
Educational signs posted	Number of signs	0	4	4
Recruit volunteers	Number of volunteers	10	50	50
Publish stories on project	number of stories printed	0	3	12
Public awareness event	Number of events	0	2	5

Supplemental Information

Current Reddy Branch Project Team Members

- MNCP&PC - Environmental Planning Division
- Montgomery County Dept of Environmental Protection
- Montgomery County Soil Conservation District
- Montgomery County Dept of Permitting Services
- Wash. Suburban San. Comm. Environmental Group
- Wash. Suburban San. Comm. Outreach Group
- Maryland Department of Natural Resources
- Maryland Department of the Environment
- Howard County Soil Conservation District
- Howard County Dept of Planning & Zoning
- Howard County Dept Public Works Stormwater Management Division
- Howard County Health Department
- Prince George's County Dept of Environmental Resources
- Prince George's County Health Department
- Gold Leaf Group
- Audubon
- Patuxent Riverkeeper
- O'Doherty Group Landscape Architecture.

FIGURE 4B. Stream Quality Conditions 1994-2000
Stream quality condition of stations monitored from 1994 to 2000



Montgomery County Stream Quality Conditions



Reddy Branch Stream Valley Park – planned reforestation areas



Reddy Branch watershed



Howard Soil Conservation District

708 Lisbon Center Drive, Ste. E - Woodbine , MD 21797 - Phone (410) 489-7987, FAX (410) 489-9120
www.howardscd.org

February 28, 2008

Ms. Amanda Bassow
Program Director, Chesapeake Programs
National Fish and Wildlife Foundation

Via electronic mail –Amanda.Bassow@nfwf.org

Dear Ms. Bassow:

Attached is our application for support from the National Fish and Wildlife Foundation Chesapeake Bay Small Watershed Grants Program. As project coordinator for three counties and multiple agencies, I am delighted to present this collaborative project for your consideration. If there is further information we can provide, please contact our office directly at the telephone number on this letterhead.

We look forward to having the opportunity to work together.

Sincerely,

A handwritten signature in black ink that reads "Robert Ensor". The signature is written in a cursive, flowing style.

Robert Ensor
District Manager

2008 Chesapeake Bay Small Watershed Grants Application

Deadline: February 29, 2008

APPLICANT INFORMATION:

Name of Organization (to be named as Grantee): Howard Soil Conservation District

Street Address: _708 Lisbon Center Drive, Suite E

City, State, Zip: Woodbine, MD 21797

Tax Status (e.g., government agency, 501(c)(3), for-profit, etc.): local government

Tax ID#:

Organization's fiscal year (mm/dd/year to mm/dd/year): 07/01 – 06/30

Project Officer: Bob Ensor

Phone: 410-489-7987

Fax: 410-489-9120

E-Mail: rensor@howardcountymd.gov

Financial Officer: Bob Ensor

Phone: _410-489-7987

Fax: 410-489-9120

E-Mail: rensor@howardcountymd.gov

May NFWF circulate your application to other potential funding sources? XX (yes)

PROJECT INFORMATION:

Short Project Name: Positively Pure Patuxent Headwaters

Project Start Date: 6/08

Project End Date: 9/12

Watershed: Patuxent Reservoirs

City:

County: Howard and Montgomery

State: Maryland

Longitude/Latitude: 76-55' 48"W/39-15' 0"N

[U.S. Congressional District 3](#)

Grant Category (*check one*):

Project Planning and Design Grant (\$10,000-\$30,000)

Implementation Grant (\$20,000-\$200,000)

Program Goal (*check those goals that your project addresses*):

Watershed Restoration

Watershed Conservation

Watershed Planning

GRANT REQUEST:

1.	NFWF Funds Requested:	\$57,168
2.	Total non-Federal Partner Contributions (<i>minimum of 25% of total</i>):	\$58,600
3.	Federal Partner Contributions (if applicable):	\$1,200
4.	Total Project Cost (sum of items 1, 2, and 3 above):	\$116,968

PARTNER CONTRIBUTIONS: Please list the names of partner organizations, the value of their contribution, indicate whether the contribution is cash or in-kind, and indicate if the sources is Federal or non-Federal.

Project Partner	Amount	Cash/In-Kind	Federal (Y/N)
Howard Soil Conservation District	19,300.00	In-Kind	N
Montgomery Soil Conservation District	15,550.00	In-Kind	N
Washington Suburban Sanitary Commission	6,450.00	In-Kind	N
WSSC for Versar, Inc.	5,000.00	In-Kind	N
WSSC for Capuco Consulting	8,000.00	In-Kind	N
Chesapeake Bay Trust	2,500.00	Cash	N
NRCS – EQIP	1,200.00	Cash	Y
Patuxent Reservoirs Protection Group	3,000.00	In-Kind	N
Total Value of Partner Contributions	61,000.00		

PROJECT BUDGET

Budget Category	CB CIG Funds Requested	Anticipated Partner Contributions	Justification (Please explain need for line item.)
Salaries		44,300	<i>Project staff from HSCD, MSCD, WSSC, and TAC member agencies – 886 hours @\$50 per hour</i>
Benefits			
Travel	242		Reimbursement to HSCD and MSCD for staff use of District vehicles to visit sites where conservation measures will be implemented. 20 miles/visit@\$0.505/mile
Equipment *			
Supplies/ Materials	500		Miscellaneous supplies to execute the project
Contractual Services		5,000	Paid by WSSC to Versar for project planning
		8,000	Paid by WSSC to Capuco Consulting for project planning and management
	2,000		For graphics assistance to produce press kit and brochure on Agricultural cost share program
	41,600		Two interns at 16 hours per week at \$25/hour for one year for preparation of conservation plans and practice designs.
Printing	10,350	2,500	Printing of: landowner survey, postage paid return envelopes, press kits, Agricultural Cost Share program brochure, and <i>From My Backyard to Our Bay</i>
Other direct project expenses	2,476		Facility rental @\$75/facility and refreshments for familiarization events and postage.
TOTALS	57,168	59,800	

* List each item of tangible, nonexpendable personal property that has a useful life of more than one year and a unit cost of more than \$5,000 and its unit cost.

**2008 Chesapeake Bay Small Watershed Grants Program
Proposal Narrative**

I. Project Abstract:

Project description – In the Patuxent Reservoirs Watershed in Howard and Montgomery counties of Maryland, the Howard Soil Conservation District (HSCD) will implement restoration and conservation measures to improve water quality on private properties with un-regulated equine operations. HSCD, in conjunction with Montgomery Soil Conservation District (MSCD), Washington Suburban Sanitary Commission (WSSC) and multiple county agencies will conduct a mail survey to identify watershed landowners with 7 or less horses. They will then engage in social marketing targeting these identified landowners to identify essential conservation measures needed to meet water quality standards, design conservation practices, and assist them in obtaining financial assistance from existing assistance programs – including the *Patuxent Reservoirs Watershed Protection Program*. Technical assistance will be provided by the Districts for landowner implementation of restoration or conservation projects focusing on nutrient and sediment control. Maintenance assistance will also be provided for project life spans. Social marketing and provision of an informational booklet will encourage application of conservation measures regardless of the presence of horses on neighboring properties

Final product(s) -- Upon completion of this project, water quality in the Patuxent will improve through the reduction of non-point source pollution by:

- Filtering agricultural nitrogen through multiple conservation practices, reducing total suspended solids (TSS), total nitrogen (TN) concentrations, and total phosphorous (TP) concentrations to receiving waters
- Reducing soil and stream bank erosion

Also upon completion of the project, public awareness of the watershed will have increased due to:

- Participation in the field walks and site visits by area residents,
- Direct contact with thousands of land owners regarding conservation practices on their property
- Technical assistance to dozens of land owners to plan and design conservation measures on their property
- Public availability of a reference booklet

I. Proposal:

A. Project Priority: Reduction in nitrogen through implementation of conservation measures on properties with 7 or less horses is a priority. This is because reduction in nitrogen is one of the goals in both the *Chesapeake 200 Agreement* and the *Tributary Strategies*. Nitrogen has been identified as one of the impediments to the Patuxent Reservoirs Watershed. This was substantiated in the August 2007 proposed Total Maximum Daily Load (TMDL) produced by the Maryland Department of the Environment (MDE). Members of the Patuxent Reservoirs Protection Group had documented evidence of nitrogen pollution in the watershed for over ten years. Horses are one of many sources of nitrogen pollution throughout the Chesapeake Bay Watershed. However, properties with 7 or less horses are not regulated. Moreover, in 2007, Maryland and the federal government both initiated concentrated efforts to stem pollution derived from horse waste and equine management practices throughout the Chesapeake Bay watershed. Consequently, focusing on these un-regulated equine operations is essential to successful watershed restoration because it will improve water quality in the Patuxent and Chesapeake Bay.

This location is a priority because in October 1996, Howard, Montgomery and Prince George's county officials entered into a *Patuxent Watershed Protection Agreement* affirming their goal to develop and implement a multi-barrier watershed management approach, or integrated management strategy in the Patuxent Reservoirs Watershed. Over eleven years later, dozens of studies have been completed on the watershed, confirming the importance of applying this integrated management strategy to address agricultural sources of nutrients and other impairments. The state recently began to codify this priority in its TMDL documents resulting from the watershed's listing on the state 303d list nearly a decade ago.

This approach has been selected because assisting landowners in the Patuxent Reservoirs Watershed who are otherwise not able to take advantage of financial assistance programs was made a top priority in 1998, by the *Patuxent Reservoirs Watershed Protection Group* Policy Board and Technical Advisory Committee (TAC). Through interagency cooperation, this unique cooperative partnership has developed a strategic goal to protect the Patuxent Reservoirs watershed. Working cooperatively, HSCD, MSCD and the other partnership agencies have successfully implemented both restoration and conservation measures throughout this watershed regardless of political boundaries. Using a watershed-wide management approach TAC agencies created a pool of funds for eligible landowners to install conservation measures and receive technical assistance where they otherwise may not. These property owners may not be part of the traditional farming community and may be unaware of steps they can take to protect the watershed using the available agricultural assistance programs. Federal, State, and County funding assistance programs exist¹, but these landowners often have low participation rates in existing programs. Increasing the use of this Agricultural Cost Share Program is imperative to improving water quality and preventing new sources of equine pollution.

¹ MACS, CREP, WHIP, Patuxent Reservoir Protection BMP Cost Share, Stream ReLeaf, MDA Conservation Innovation Grants

B. Objectives: Implementing restoration and conservation measures to improve water quality on private properties with un-regulated equine operations will contribute to significant improvements in habitat and water quality and will achieve the following objectives:

1. Improve water quality
2. Reduce significant amounts of nutrient and sediment load
3. Continue in the implementation of the Patuxent Reservoirs Watershed Protection Strategy by taking advantage of an existing pool of funds that has not been used to its capacity
4. Motivate a targeted audience to take actions to improve water quality utilizing Best Management Practices in the Patuxent Reservoirs Watershed, Further; in addition to landowners lacking familiarity with existing assistance programs, elected officials at many levels are also not aware of existing assistance programs. This lack of awareness makes outreach to educate the public a very important activity.
5. Raise awareness about the challenges and solutions to restoring the Chesapeake Bay and its rivers; the mailing will reach hundreds of property owners in the watershed, raising their awareness of the issue. Those who respond will benefit from the educational programs and hands on assistance in identifying BMPs on their property. The distribution of *From my Backyard to our Bay* will meet several of the Chesapeake 2000 vision statements, including fostering an engaged and educated public that understands how personal actions impact the quality of local waters and the Bay.
6. Promote collaborative watershed restoration solutions between citizens, businesses, and government; this is a collaborative project between SCDs and DEPs in Howard and Montgomery Counties and the Washington Suburban Sanitary Commission, exemplifying effective multi-governmental approaches to watershed improvement. In addition, by working directly with county residents who either own or board horses, this will embody an exemplary cooperative effort between business, citizens and government.

C. Overall Context: The anticipated outcomes resulting from implementing restoration and conservation measures to improve and protect water quality on private properties with un-regulated equine operations address specific Small Watershed Grant program goals. The goals addressed include:

Improve the water quality – Patuxent Reservoirs Watershed has been listed on the State of Maryland 303d list as impaired. Multiple studies have found that the watershed suffers from nitrogen, phosphorus and sediment pollution. Sources of these pollutants are likely agricultural and livestock management practices as well as suburban runoff and highway runoff sources. Installation of conservation measures funded by the Agricultural Cost Share Program will address the livestock sources of pollutants. Specific conservation measures encouraged in this program include riparian forest buffer establishment (both grass and tree), stream crossings, trough installation and spring development (to eliminate the need for livestock access to streams), fencing, and stream bank protection. All of these measures have quantifiable nutrient reduction results.

Protect Water Quality – Implementing conservation measures is one way to prevent additional pollutants from entering the streams. In the planning phases of this project, HSCD and MSCD have assumed that the landowners who will respond to this targeted social marketing effort will have not availed themselves of the other available cost share programs because they were unaware of available assistance, are ineligible, or they needed only technical assistance. Through the direct site visits and field walks proposed, and distribution of the booklet *From my Backyard to our Bay*, HSCD and MSCD will help landowners prevent new sources of pollution from entering the streams by identifying potential future sources of pollution and increasing individual conservation actions.

Further, continued implementation of the Patuxent Reservoirs Watershed protection strategy, a locally supported conservation strategy will protect water quality. Since 1997, the TAC has monitored progress and funding needs on six priority resources. Two of those priorities are to (1) protect the rural character and landscape, and (2) to increase public awareness and stewardship. Working with these smaller equine operations nurtures the rural character and landscape. Also, due to their increasing popularity – equine enthusiasts are a good target audience for increasing public awareness and stewardship. This project will motivate stewardship of the watershed by members of the community; and this project is an **implementation step in the furtherance of multiple regional watershed plans, including the Patuxent River Tributary Strategy.**

In 1996, the Patuxent Reservoirs Watershed Protection Agreement was signed by Howard, Montgomery, and Prince George’s Counties, Howard and Montgomery Soil Conservation Districts, MNCPPC, and the WSSC creating a Policy Board and Technical Advisory Committee (TAC) to work together to protect watershed resources. As stated earlier, during 2007, TMDLs were developed by Maryland Department of the Environment for the Reservoir Watershed, which impact Reddy Branch. Also during 2007, multi-year studies on the watershed’s forestry management, sedimentation, and oxygen demand were completed by Maryland Department of Natural Resources and Maryland Geologic Survey.

Implementing restoration and conservation measures to improve and protect water quality on private properties with un-regulated equine operations is a continuation of a long-term coordinated project to reduce nutrient pollution in the Reservoirs watershed. In 2006, WSSC engaged contract support for project planning and design for projects to further address watershed priority resource issues. Additional Chesapeake Bay Trust funding has been received for portions of this project and federally funded activities will augment the project (such as pasture walks funded by Grazing Land Conservation Initiative funds.) .

D. Methodology and Work Plan: Steps taken to implement this project will ultimately contribute toward the installation and maintenance of multiple mitigation measures to protect the source water of the Patuxent. The majority of the activities will be conducted by the soil conservation district staff with assistance from various TAC member agencies. The survey phase of the project will begin in the first half of 2008 with the goal of installations in spring of 2009. It is anticipated that maintenance assistance will be available through September of 2012.

Initial mailing along 97 corridor – because funding was received from the Chesapeake Bay Trust in December of 2007 to initiate this project, the planning team determined that to support other TAC efforts underway in the portion of the watershed near the intersection of 97 (Georgia Avenue) and 108 (Laytonsville Rd), the survey will be mailed to landowners with 5 to 100 acres in the area near 97, south of 70 and north of 108 in the spring of 2008. The landowner names and addresses will be identified by HSCD and MSCD staff with assistance from WSSC. Mailing assembly will be conducted by HSCD and MSCD. Technical assistance required to prepare the mailing will be provided by the outreach staff at WSSC. Results from this initial mailing will then be managed by the SCDs as a pilot of the watershed-wide mailing for which funding is requested in this application.

Preparation for and Mailing to all 2379 landowners in the watershed with 5 to 100 acres – Beginning in July 2008, preparation for a larger mailing to the relevant landowners throughout the watershed will begin. Mailing list development and printing will be born by the SCDs with WSSC offering technical assistance. The surveys will be mailed in early August 2008.

Social Marketing to Improve Survey Return Rate – in August 2008, press releases will be made to publicize the project's efforts to improve the Patuxent headwaters. Reaching out through *Equiary* magazine, Maryland Horse Council, Maryland Trail Riders Association and numerous equine clubs and businesses, effort will be made to target not only the landowners with horses on their property, but all of the patrons and businesses that may sell supplies to or in other ways work with the horse's owners. This effort will seek to encourage landowners to return their surveys. A professional press kit will be developed to provide thorough information to all press venues. A professional brochure will be prepared, printed, and posted electronically which describes the Watershed Agricultural Cost Share program.

To link the practices of the landowners to more residents than just the landowners, a Baltimore County booklet entitled *From My Backyard to Our Bay* will be edited and updated to inform landowners throughout the Reservoirs Watershed. It will also be made available electronically with a limited number in print. The new availability of the brochure will be one of the interest points in the press effort. Marketing professionals and WSSC outreach staff will provide technical assistance for this marketing effort to the SCDs.

Analyze Results – During late August and early September 2008, as survey responses are returned, HSCD and MSCD staff will begin to tabulate the results and plan familiarization events. Print copies of *From My Backyard to Our Bay* and the brochure on the Reservoir Watershed Agricultural Cost Share will be finished so they are available at the events. Handouts will also be prepared on MACs and EQIP. Based on the addresses of the properties from which responses are received one to three locations will be selected for familiarization events. Technical assistance in preparing handouts, planning the events and hosting the events will be sought from WSSC and other TAC members as needed. All TAC members will be asked to review and comment on event materials.

Conduct Familiarization Events – In early October 2008, familiarization events will be held in up to 3 locations in the watershed. Participants will receive written materials and hear presentations describing the Reservoir Watershed Agricultural Cost Share program and how the program might benefit their property and the Chesapeake Bay. All event materials will be posted to county and WSSC web sites to ensure their accessibility by those who did not attend the event.

During the events, volunteers will be recruited for visits by SCD staff to identify potential restoration and preservation opportunities on their property. Technical assistance will be provided by WSSC and other TAC agencies.

Social Marketing to Encourage Conservation Measures – during October and November 2008, SCD staff will seek to encourage landowner use of conservation measures. One tool that will be used will be to offer pasture walks. The pasture walks will be publicized by mailings, advertisements and press releases. In addition, SCD staff will visit the properties of landowners who are interested in participating in the cost share program. These targeted visits will seek to convince landowners of the importance of conservation measures on their property. Ideally, at the completion of this process, willing landowners will proceed to the development of conservation plans. If appropriate, SCD staff will seek technical assistance from specialists such as wetlands ecologists or similar specialists in the county offices.

Facilitate Funding Requests – Between November 2008 and February 2009, SCD staff will assist willing landowners with submission of Watershed Agricultural Cost Share funding requests. This assistance will take the form of conservation plan development assistance, conservation practice design, and application preparation assistance. The SCDs will seek to add contractual graduate students on a part time basis to assist with planning and design. Each SCD will seek one candidate who is studying conservation practices to work 16 hours per week to prepare conservation plans. Also, each SCD will seek one contractual intern to work 16 hours a week to create site specific conservation practice designs. Candidates will be sought from the University of Maryland, Frostburg State University, and Towson University, or other state institutions with similar caliber students.

Continued Social Marketing in May through June 2009, social marketing efforts will continue through the regular promotion of scheduled pasture walks to identify likely conservation measures for implementation on private property.

Implementation Oversight Assistance – April through September 2009, SCD staff will oversee implementation of Agricultural Cost Share projects. SCD staff will communicate directly with the landowner's contractor, stake the site if requested, and revisit the site to confirm proper installation. If needed, technical assistance providers from other TAC agencies, such as foresters and botanists, will be asked to provide technical assistance.

Success Monitoring and Reporting – September 2009 through September 2012, SCD staff will continue contact with landowners to ensure operation and maintenance continues without interruption. Inspections will be made to see if any significant damage has occurred to the conservation measure, because if so, the program allows the SCD to assist with replacement. Conditions of the 5-year maintenance agreement prescribed by the program will be confirmed. It is anticipated that 50 percent of the sites will be spot checked each year. Project results will be reported to the TAC and its governing Policy Board at the annual Policy Board meeting and in the Annual Report and its Technical Supplement. Additional funds to expand use of the Watershed Agricultural Cost Share will be requested. Policy Board members will be encouraged to request that additional funds be added to the county budgets.

E. Community-based Collaboration/Partnership: The process used to identify appropriate project partners and to engage stakeholders who might hinder or help the success of the implementation restoration and conservation measures to improve water quality on private properties with un-regulated equine operations in the Reservoirs Watershed has been deliberate and has taken several years. In 1996, when the Patuxent Reservoirs Watershed Protection Agreement was signed by representatives from 6 government agencies, they began to work together to protect watershed resources. Through interagency cooperation, this unique cooperative partnership has developed a strategic goal reaching beyond meeting the Clean Water Act provisions for fishable and swim able waters, to protecting the Patuxent Reservoirs as envisioned in the Safe Drinking Water Act. This project is overseen by the Patuxent Reservoirs Protection Group Policy Board, which meets annually. Broad project oversight is coordinated by the TAC, which meets quarterly. Project progress has been a regular item on the TAC agenda and will continue to be throughout project implementation.

Equine organizations are being sought to support this project deliberately. To clearly connect the Patuxent Reservoirs Watershed to the Chesapeake Bay and equine management, *Equiary* Magazine is being engaged in the project. Key technical assistance providers such as Versar have been contracted for assistance by WSSC.

F. Partner Justification

- Howard Soil Conservation District, Bob Ensor and Jim Myers, will be managing the financial aspects of the project, identifying targeted mailing addresses, compiling survey results for Howard County, conducting educational programs, and assisting in identification of BMPs on individual properties, and assisting in funding request preparation.

- Montgomery Soil Conservation District, David Plummer, and J.G. Warfield, will be identifying targeted mailing addresses, compiling survey results for Montgomery County, conducting educational programs, and assisting in identification of BMPs on individual properties, and assisting in funding request preparation.

- Montgomery County Department of Environmental Protection, Howard County Department of Public Works, Howard County Planning Department, will assist in conducting educational programs, and assist in identification of BMPs on individual properties, and will assist with project management through participation in the organizing entity -- the Patuxent Reservoirs Watershed Protection Technical Advisory Committee (TAC).

Washington Suburban Sanitary Commission will assist through guidance on the outreach planning, and provide contractor assistance with project planning and technical support Contractor support may be used for production of press kits and program brochures.

Equiary magazine, Maryland Horse Council, and local tack shops, riding clubs, and equine suppliers are included as partners in the project because their support and promotion of the effort will directly contribute to the landowner enthusiasm for becoming involved.

G. Dissemination: Implementation of restoration and conservation measures to improve water quality on private properties with un-regulated equine operations has been planned to improve the subwatershed and to serve as a replicable demonstration for the Patuxent Reservoirs watershed. This project is the first of this kind to be planned, coordinated and implemented by

the TAC. TAC members are already planning duplicative projects for implementation. Second, the project is the first-known in the reservoir watershed where so many government agencies are offering resources and working together. Lessons learned through its implementation will be shared with the Potomac watershed protection group and other WSSC operational departments. Third, the general public will have access to information on the riparian buffer planting implementation steps and successes through signage on site and an exhibit at the Brighton Dam nature center.

H. Technical Assistance Needs: *[This element may be included as an appendix and will not count towards the page limit.]* This project has been reviewed by officials in three counties, Maryland DNR and MDE. Members of the TAC strove to assemble the technical expertise necessary to successfully implement the project. Assistance has also been provided by Versar under contract to WSSC, planning advice has been provided by Capuco Consulting and Versar, project planning has been provided by WSSC and contractors. Upon implementation, financial management will be provided by HSCD. If unforeseen circumstances arise, additional assistance will be requested from NFWF and NEMO.

III. Evaluation

Adaptive Management: This project is well suited to adapt to changes under the guidance of the integrated, multidisciplinary management team that guides the project (the TAC). The partners will monitor the project's effectiveness by assigning teams to visually monitor the reforestation, post-planting sampling, and ongoing water quality monitoring at the Triadelphia and Rocky Gorge reservoir. This information will be used to adjust the management of the conservation measures and the planning for the next phases of the project.

Mid- course corrections will be discussed in the quarterly TAC meetings – with partners invited to attend. The decision to make a mid-course change will be in the control of HSCD and MSCD as coordinators, however it is anticipated that they will consult with all partners prior to significant changes in approach.

Potential Negative Impacts: In this particular topography it is difficult to imaging negative impacts of conservation measures. The most likely problems will result from installation of the measures. Neighbors could be unhappy with aesthetics until the measures are fully established. There could also arise a one-time siltation problem at the time of planting if a high intensity rain event should occur. Necessary mitigation measures will be implemented to minimize the risk.

External Effects: The most likely factor that may affect the conservation measure installation would be extreme weather following installation. Extreme weather could necessitate replacement if a significant portion of the measure were destroyed.

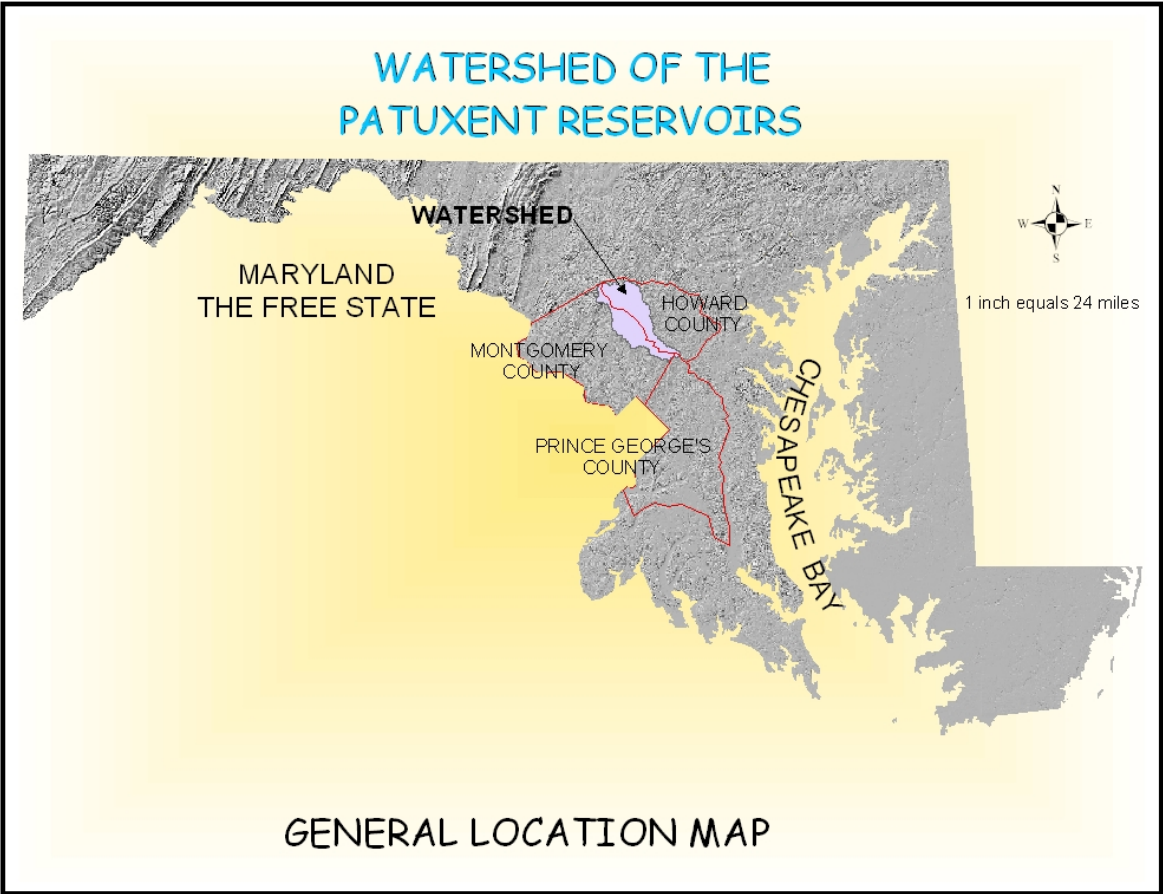
Transferability: This project has been planned not only to improve the subwatershed but also to serve as a replicable demonstration for the Patuxent Reservoirs watershed. First, the project is the first of this kind to be planned, coordinated and implemented by the TAC. TAC members are already planning duplicative projects for implementation. Second, the project is the first-known in the reservoir watershed where so many government agencies are offering resources and working together. Lessons learned through its implementation will be shared with the Potomac watershed protection group and other WSSC operational departments. Third, the general public will have access to information on the riparian buffer planting implementation steps and successes through signage on site and an exhibit at the Brighton Dam nature center.

Evaluation Logic Framework:

Activities →	Indicator →	Baseline →	Projected Project Output →	Projected Post-Project Outcome
<i>Prepare and distribute survey</i>	Number of surveys distributed	0	2379	2379
<i>Press Releases to increase awareness of the effort</i>	Number of news articles	0	6	24
<i>Tabulate survey results</i>	Names and Addresses of Landowners with 7 or less horses	0	50	100
<i>Familiarization events to introduce landowners to assistance being offered</i>	Number of event participants who elect to seek assistance	0	10	50
<i>Private land site visits</i>	Number of potential projects identified	0	10	50
<i>Conservation plan development</i>	Number of Conservation Plans Developed	0	10	50
<i>Site-specific practice designs</i>	Number of site-specific practice designs completed	0	10	150
<i>Private land Agricultural Cost Share application assistance</i>	Number of assistance applications submitted	0	8*	16
<i>Implementation oversight assistance</i>	Number of projects implemented correctly	0	8	16
<i>Implementation oversight assistance</i>	Pounds of nitrogen and phosphorus	0	10,000 lbs	10,000 lbs

	removed from surface waters			
<i>Maintenance outreach</i>	Number of projects still operating correctly after 3 years	0	6	14

* This number may be lower than the number of conservation plans and site-specific designs developed because frequently landowners use personal resources to voluntarily fund implementation of conservation measures rather than using the Agricultural Cost Share dollars.





OUR HOUSE Youth Home

19715 Zion Road
Brookeville, Maryland 20833-1505
Office: 301-519-1019
Fax: 301-990-1560

February 28, 2008

Ms. Amanda Bassow
Program Director, Chesapeake Programs
National Fish and Wildlife Foundation
Via electronic mail –Amanda.Bassow@nfwf.org

Dear Ms. Bassow:

Attached is our application for support from the National Fish and Wildlife Foundation Chesapeake Bay Small Watershed Grants Program.

As Administrator for Our-House, Inc., I am delighted to present this collaborative project for your consideration.

If there is further information we can provide, please contact our office directly at the telephone number on this letterhead.

We look forward to having an opportunity to work together.

Sincerely,

Mike Nott, Administrator

**2008 Chesapeake Bay Small
Watershed Grants Application
Deadline: February 29, 2008**

APPLICANT INFORMATION:

Name of Organization (to be named as Grantee): **Our House, Inc.**

Street Address: 19715 Zion Road

City, State, Zip: **Brookeville, MD 20833-1560**

Tax Status (e.g., government agency, 501(c)(3), for-profit, etc.): **non-profit 501c(3)**

Tax ID#: 52-1679448

Organization's fiscal year (mm/dd/year to mm/dd/year): 07/01/ to 06/30

Project Officer: Mike Nott

Phone: 301-519-1019

Fax: 301-990-1560

E-Mail: mike@our-house.org

Financial Officer: Mike Nott

Phone: 301-519-1019

Fax: 301-990-1560

E-Mail: mike@our-house.org

May NFWF circulate your application to other potential funding sources? (yes) (no)

PROJECT INFORMATION:

Short Project Name: **Riparian Buffer Installation in the Headwaters in the Reddy Branch
Subwatershed of the Patuxent River**

Project Start Date: 08/10/08

Project End Date: 07/1/11

Watershed: Reddy Branch – Basin Code 02131107 Sub basin Code 021311070944

City: Brookeville

County: Montgomery

State: Maryland

Latitude: 39.1805148 Longitude: 77.0701375

[U.S. Congressional District](#) in which your project is located: 4th

Grant Category (*check one*):

- Project Planning and Design Grant (\$10,000-\$30,000)
- Implementation Grant (\$20,000-\$200,000)

Program Goal (*check those goals that your project addresses*):

- Watershed Restoration
- Watershed Conservation
- Watershed Planning

GRANT REQUEST:

- 1. NFWF Funds Requested: \$198,250
- 2. Total non-Federal Partner Contributions (*minimum of 25% of total*): \$ 58,350
- 3. Federal Partner Contributions (if applicable): \$ 0
- 4. **Total Project Cost (sum of items 1, 2, and 3 above): \$257,600**

PARTNER CONTRIBUTIONS: Please list the names of partner organizations, the value of their contribution, indicate whether the contribution is cash or in-kind, and indicate if the sources is Federal or non-Federal.

Project Partner	Amount	Cash/In-Kind	Federal (Y/N)
Washington Suburban Sanitary Commission staff	4,000	In-Kind	N
WSSC - Versar, Inc.	5,200	In-Kind	N
WSSC - Capuco Consulting Services, Inc.	9,600	In-Kind	N
Our House staff and volunteers	16,550	In-Kind	N
Patuxent Reservoir Protection Group	4,000	In-Kind	N
Patuxent Riverkeeper	7,500	In-Kind	N
Audubon	2,000	In-Kind	N

PROJECT BUDGET

Budget Category	CB CIG Funds Requested	Anticipated Partner Contributions	Justification (Please explain need for line item.)
Salaries		38,050	<i>Our House project manager, labor, and financial manager, Riverkeeper, Audubon, MNCPPC, WSSC volunteers and technical assistance providers</i>
Benefits		0	
Travel		0	
Equipment		0	
Supplies/ Materials	114,550	5,500	800 1.5-2 " Trees and 150 shrubbery
Contractual Services	80,000		Site planning and planting plan development
		5,200	WSSC to Versar, Inc. for site assessment and planning
		9,600	WSSC to Versar to Capuco Consulting for project planning, outreach and partnership coordination
Printing	3,000		signs
	500		Outreach mailings
Other direct project expenses	200		Refreshments for volunteers
TOTALS	198,250	58,350	

* List each item of tangible, nonexpendable personal property that has a useful life of more than one year and a unit cost of more than \$5,000 and its unit cost.

**2008 Chesapeake Bay Small Watershed Grants Program
Proposal Narrative**

I. Project Abstract:

Project description -- In the Reddy Branch subwatershed of the Patuxent Reservoirs Watershed of the Chesapeake Bay watershed, Our House, Inc proposes to plant native trees and shrubs to restore riparian buffer along approximately two acres of a 1st order reach of Reddy Branch, which is a tributary of the Hawlings River. Our House owns these 2 acres. The site is in old-field condition. Reforesting these acres will require approximately 800 trees measuring 1.5 to 2 inches in diameter, 150 shrubs, and deer-protection measures. The sites require preparation that includes stream bank stabilization in small areas, and three to five years of post-planting maintenance to control invasive plants. Community members will be engaged in the project through volunteer participation in planting and maintenance, distribution of informational flyers, and display of signage. The purpose of the project is to improve water quality, restore vital habitat, prevent additional pollutants from entering the stream, implement existing state and regional strategies for protecting the watershed, and to implement a social marketing initiative to motivate stewardship of the watershed by Olney-area residents and businesses. Further, Reddy Branch is a tributary to the Rocky Gorge Reservoir, one of two drinking water supply reservoirs in the Upper Patuxent that the Washington Suburban Sanitary Commission (WSSC) owns, which provides water to approximately 1.6 million people. After a small portion of the water from the Patuxent is removed and treated for drinking water, the remaining percentage (over 90%) flows through the Patuxent to the Chesapeake Bay.

Final product(s) -- Upon completion of this project, water quality in Reddy Branch will improve through the reduction of non-point source pollution by:

- Creation of a forested riparian buffer along Reddy Branch
- Filtering agricultural nitrogen through multi-species riparian forested buffers, reducing total suspended solids (TSS), total nitrogen concentrations, and total phosphorous concentrations to receiving waters
- Reduction of highway runoff
- Providing shade by increasing forest canopy, thus cooling areas of the existing stream for enhanced aquatic habitat, better nutrient cycling, reduction of algae, and increasing dissolved oxygen concentrations
- Reducing soil and stream bank erosion thus reducing sedimentation to Reddy Branch
- Encourage growth of a diverse mix of existing native grasses and shrubs to provide habitat for birds, small mammals, and other native fauna.

Also upon completion of the project, public awareness of the watershed will have increased due to:

- Volunteer opportunities for the residents and businesses of the Olney-area to increase their involvement with protection of the Patuxent watershed
- Information sharing through the local schools, Patuxent Riverkeeper newsletter, press releases and signage
- Participation in the riparian buffer installation and maintenance by the Patuxent Riverkeeper, and Audubon MD/DC.

II. Proposal: A riparian buffer on Reddy Branch is a high priority project for a number of reasons: (1) the state and three counties identified the Patuxent Reservoirs Watershed as needing multi-agency protection over 10 years ago; (2) Reddy Branch is rated in “fair” condition by Maryland Biological Stream Surveys; (3) although much of the stream lies in an area with a traditionally rural character and landscape, the stream is within walking distance of the significant community of Olney – of suburban character; and (4) the lower portion of this stream is being reforested concurrently.

A. Project Priority: Restoring the riparian forest buffer at Reddy Branch (in the Hawlings River Watershed) was made a top priority in 2005, by the *Patuxent Reservoirs Watershed Protection Group* Policy Board and Technical Advisory Committee (TAC). Through interagency cooperation, this unique cooperative partnership has developed a strategic goal to protect the Patuxent Reservoirs watershed. In 2005, the TAC determined that establishing and maintaining 35-foot forested riparian buffers on all streams in the watershed would be the highest priority implementation project. Howard and Montgomery County conducted assessments on opportunities for establishing riparian buffers in the watershed and Montgomery County selected a site for a pilot planting project along Reddy Branch. This portion of the stream that rests on Our House property will continue towards achievement of this objective.

The Montgomery County Department of Environmental Protection (DEP) published a Countywide Stream Protection Strategy (CSPS) in 1998. The CSPS provides County stream resource conditions on a sub watershed basis and recommends programs and policies to preserve, protect, and restore County streams and watersheds. In 2003, a Watershed Restoration Study was conducted to identify opportunities to enhance and protect aquatic and riparian habitat in the Hawlings River watershed and to reduce sediment and associated nutrient loadings to the Rocky Gorge Reservoir. This study was initiated in support of Montgomery County’s commitment as a signatory of the *Patuxent Reservoirs Watershed Protection Agreement* to protect the watershed, its tributary streams, and the Rocky Gorge Reservoir. The four part Study used existing biological and physical habitat data and hydrologic analysis to identify priority stream reaches, collected stream bank and channel stability data at 8 monitoring stations, conducted field walks in the priority reaches, developed preliminary designs for 12 stream restoration projects, and identified long-term stream protection needs. The Hawlings River Watershed Restoration Action Plan was a follow up to the Hawlings River Watershed Restoration Study. The Plan included identification of a stream restoration activity in the Reddy Branch subwatershed.

Our House, Inc. (www.our-house.org) is an award winning organization is a highly supervised and structured learning environment in a residential program which operates 24 hours per day year round. It serves at-risk adolescent males ages 16-21 who are in need of specialized help and a new start. They are referred to us from social and juvenile justice agencies, as well as foster care. Our House is unique in three ways: it teaches building trades 8 hours per day; it has academic classes in the evenings; it has weekly community service so that the students learn to "give back" to society. Our House embraces treatment that is responsive to apparent *nature deficit disorders* providing experiences that emphasize outdoor learning and connections. This project fits into their treatment programs in a unique and meaningful way.

Restoring the riparian forest buffer at Reddy Branch will provide the best multi-barrier approach based on known research of proven field methods for long term source water protection (Carlton

1990; Dunne and Leopold 1978) – addressing a complete subwatershed of the Hawlings River which ultimately flows through the Patuxent and into the Chesapeake Bay.

Motivating the Olney-area community to be stewards of Reddy Branch is one step toward the TAC's larger goal to increase public awareness and stewardship of the Reservoirs Watershed. Identified in 1997 as one of the priority resources of the watershed, public awareness and stewardship have been ongoing challenges for the TAC. Residents of the watershed are physically removed from the Chesapeake Bay and its smaller tributaries. Although the Patuxent's tributaries flow through Olney, the Riverkeeper organization could not identify any volunteers or supporters in their databases who reside in the Reddy Branch area. Consequently, using the resources of Patuxent Riverkeeper, and involving well established citizen groups such as Audubon is intended to result in increased participation in stewardship activities by the Olney community.

B. Objectives: Installing a riparian buffer on Reddy Branch will ultimately restore forest to contribute to significant improvements in habitat and water quality. It will achieve the following objectives: (1) Improve water quality; (2) Restore vital habitat; (3) Prevent additional pollutants from entering the stream; (4) Reduce significant amounts of nutrient and sediment load; (5) Continue in the implementation of the Patuxent Reservoirs Watershed protection strategy; and (6) Motivate stewardship of the watershed by members of the community.

- Engage Our House supporters and program participants in protecting their riparian forest buffer
- Foster and strengthen relationships with the Patuxent River protection groups
- Broaden public understanding of the value of riparian forest buffers and their role is sustaining and restoring watershed health by showcasing a landowner initiative to establish riparian forest buffers

C. Overall Context: The anticipated outputs and outcomes resulting from the installation of a riparian buffer at Reddy Branch address specific Small Watershed Grant program goals. The goals addressed include:

- *Improvements to the water quality* -- Reddy Branch sub basin has been identified as having a biological impairment. Riparian buffer installation and the site preparation associated with it will mitigate these conditions.

Restoring vital native animal and plant habitat through

- removal of numerous invasive plant species
- re-establishment of approximately 880 native plants that will serve as better sources of food and shelter for native birds and animals that have been observed such as woodcocks, cuckoos, both oriole species, tree swallows, chipping and field sparrows, prairie warblers, yellow throats, osprey, bald eagle, sharp shin, red tail and red shouldered hawks, both wrens, bluebirds, phoebes, red throated humming birds, vireos, cedar waxwings, coyote, Pitymys (Microtus) pinetorum and pennsylvanicus, Zapus hudsonicus, Peromyscus, Otter, raccoon, Glaucomys, red fox, gray fox, gray squirrel and chipmunks, Bufo americanus, painted turtles, box turtles, Hyla crucifer, black, garter and ring neck

snakes, many large black snakes in trees and garden, Spotted salamander (*A. maculatum*), and Marbled salamander.

- cooling of the stream to improve habitat
- significant reduction of nitrogen and sedimentation deposition
- Prevent additional pollutants from entering the stream
- Reduce significant amounts of nutrient and sediment load

Continue in the implementation of the Patuxent Reservoirs Watershed protection strategy

Motivate stewardship of the watershed by members of the community.

Engage landowners on a new level about the importance of protecting their riparian forest buffer

- Foster and strengthen relationships with the Patuxent River protection groups
- Broaden public understanding of the value of riparian forest buffers and their role in sustaining and restoring watershed health by showcasing a landowner initiative to establish riparian forest buffers

Riparian buffer installation at Reddy Branch is an implementation step in furtherance of multiple regional watershed plans, including the Patuxent River Tributary Strategy. At least 18 studies have been conducted on the Patuxent Reservoirs Watershed and Hawlings River over the past twenty years. During 2007, TMDLs were developed by Maryland Department of the Environment for the Reservoir Watershed, which impact Reddy Branch. Also during 2007, multi-year studies on the watershed's forestry management, sedimentation, and oxygen demand were completed by Maryland Department of Natural Resources and Maryland Geologic Survey.

In 1996, the Patuxent Reservoirs Watershed Protection Agreement was signed by Howard, Montgomery, and Prince George's Counties, Howard and Montgomery Soil Conservation Districts, MNCPPC, and the WSSC creating a Policy Board and Technical Advisory Committee (TAC) to work together to protect watershed resources. Many of the studies described above were prepared through the TAC. In 2005, the TAC identified the Reddy Branch Stream Valley Park as its top priority for riparian forest buffer restoration. Both the Patuxent River Functional Master Plan and the Olney Master Plan support this type of land use and restoration.

Riparian buffer installation at Reddy Branch is a continuation of a long-term coordinated project to increase riparian buffers in the Reservoirs watershed. In 2006, WSSC engaged contract support for project planning and design for the Reddy Branch subwatershed. Upon initial examination, it was discovered that a forest conservation easement was established on a parcel of private farmland when subdivisions were made. Restoration of this forest area is a portion of the project. Additional Chesapeake Bay Trust funding is being sought from another source for creating a 125-foot wide, forested riparian buffer along the stream for approximately 10,000 square feet. It is anticipated that in the future, Our House will also initiate a significant wetland restoration project where a portion of the Reddy Branch is currently dammed on their property.

D. Methodology and Work Plan:

Site Plan and Planting Plan Development – Ultimately, Our House, Inc. intends to reforest as much of their 67 acre property as is feasible. To address volunteer concerns regarding species

selection and maximizing growth, a designer will be contracted to prepare a conceptual plan for the entire acreage and detailed planting plans for the initial reforestation in 2009. O'Doherty Group Landscape Architecture has already provided considerable project planning assistance pro-bono.

Demonstration Planting – To work out planning and implementation steps, an initial area of approximately 10,000 square feet will be designed and installed in the fall of 2008. This demonstration area will enable the project team to identify technical assistance needs that have not been foreseen.

Site preparation – Site preparation will be conducted by a team of installation contractors and volunteers. It will consist of removing any undesirable and exotic invasive species. Removal will be achieved through a combination of mechanical and chemical treatments. In early August 2008, a qualified contractor assisted by volunteers from Our House, Inc. and members of the community would prepare the site. They would remove invasive and undesirable vegetation by mowing, selective herbicide application, and hand pulling. Weed competition is the primary cause of riparian planting losses, and a thorough site preparation increases the odds of plant survival and decreases the effort needed for maintenance. It will occur in August and September of 2008. No permits are needed to prepare the site.

Planting – Once planting stock has arrived in September, it should be carefully inspected for health and viability. A forestry resource professional will stake out the placement of the plant stock throughout each site according to the soil, space, moisture and light requirements of each plant species to achieve an optimal riparian community composition. Based on a 2001 Maryland Department of Natural Resources study, acceptable stocking levels for trees range from 200 to 400 trees per acre for a riparian planting site. This grant request is for 200 trees per acre. With proper maintenance at these sites, natural regeneration often boosts stock numbers to the preferred level of 400 or more trees per acre, thus increasing the long-term returns of the invested planting dollars.

In October 2009, volunteers from the Our House community, TAC agencies, Patuxent Riverkeeper and Audubon MD/DC assisted by contractors, will work together install a fenced deer enclosure around the project areas, plant a mixture of shrub and tree species to provide forested buffer. They will also install plastic tree tubes to protect the plantings from deer browsing.

Maintenance – Maintenance will consist of continued removal and suppression of exotic invasive species. Volunteers and contractors will work together to maintain the riparian buffer for five years after the planting. Mowing should occur on a regular schedule, taking care to protect the delicate stock from damage by mowing equipment. Regular mowing will minimize the competition for nutrients and resources between herbaceous vegetation and the newly planted shrub and tree stock. Further herbicide treatments and continued weeding will allow planting stock to reach maturity and more successfully compete with exotic invasives. Maintenance volunteers will include Our House, Inc. and Olney-area members of Patuxent Riverkeeper. It would likely use integrated vegetation management practices, including periodic mowing and/or selective basal application of herbicides, and hand pulling to control invasive plant species from becoming established. While working on this area MCSCD will work with private landowners to develop nutrient management plans and other agricultural best management practices for this

area as well as others. A comprehensive management approach will be prepared to cover the entire sub-watershed.

It is anticipated that maintenance of the Reddy Branch riparian buffer would become one of the many April clean up sites along the Patuxent each year. With all of the county and state agencies that comprise the TAC actively involved with the Reddy Branch riparian buffer, sustainability of this project is highly likely. Further, with involvement of established, significant volunteer organizations such as Patuxent Riverkeeper, Isaac Walton League and Audubon, regeneration of volunteer pools will be likely if initial volunteers move on to other projects.

Monitoring -- Historical stream monitoring data exists. That data will serve as a baseline for measuring success. Assessment of that existing data is planned for the summer of 2008. Assistance is being sought from MDE and Montgomery County. Assistance will be requested from those and other sources to collect post-program data. In addition, The WSSC is in the 16th year of monitoring reservoir water quality to provide data for technical analysis and long-term trending to support protection of the reservoirs and drinking water supply. Three sites at each reservoir are monitored monthly or bimonthly, except during winter months. The reservoirs are monitored for phosphorus, nitrogen, total organic carbon, pesticides, metals, turbidity, fecal coliform and chlorophyll. In addition, in-situ transparency and profile measurements of pH, conductivity, temperature, reduction-oxidation potential and dissolved oxygen are performed. Montgomery County Department of Environmental Protection (DEP) monitoring in the Patuxent watershed is next scheduled for 2009.

Outreach -- Significant community outreach and education is planned for this implementation phase of the Reddy Branch project. Outreach has been led by WSSC and its contractor, Montgomery DEP, and Patuxent Riverkeeper. Activities underway in preparation for the installation here and at Reddy Branch Stream Valley Park include:

- Publication in Patuxent Riverkeeper newsletter
- Display that will be available at the water festival in April 2008
- Outreach and contact to the schools introducing the project

Following the buffer installation, educational signs will be prepared and installed at each demonstration area. Educational-hands on sessions will be conducted during site preparation, planting and maintenance days. In addition, interactive educational displays will be prepared for posting on the WSSC and MNCPPC websites as well as at the Brighton Dam Nature Center.

E. Community-based Collaboration/Partnership: The process used to identify appropriate project partners and to engage stakeholders who might hinder or help the success of the riparian buffer at Reddy Branch has been deliberate and has taken several years. In 1996, when the Patuxent Reservoirs Watershed Protection Agreement was signed by representatives from 6 government agencies, they began to work together to protect watershed resources. Through interagency cooperation, this unique cooperative partnership has developed a strategic goal reaching beyond meeting the Clean Water Act provisions for fishable and swim able waters, to protecting the Patuxent Reservoirs as envisioned in the Safe Drinking Water Act. The Reddy Branch project is overseen by the Patuxent Reservoirs Protection Group Policy Board, which meets annually. In November 2006, it directed the TAC to make this project an example of successful coordinated activity among the signatories to the protection agreement. To that end,

broad project oversight is coordinated by the TAC, which meets quarterly. Project progress has been a regular item on the TAC agenda for two years and will continue to be throughout project implementation.

Volunteer organizations were sought to support this project deliberately. To clearly connect the Reddy Branch to the Chesapeake Bay, Patuxent Riverkeeper was engaged on the project at its conception. One of the project outcomes is the increase in Riverkeeper volunteers in this watershed from 0 to 50. Local community outreach will be the primary tool used to achieve that outcome. Other volunteer groups have become partners as their leadership gained interest in the project. Key technical assistance providers such as Versar have been contracted for assistance by WSSC and MNCPPC.

F. Partner Justification: Our House volunteers will coordinate the restoration activities with contractor assistance. A contract project manager will assist. Project communication will flow on a regular basis, with routine project meetings bi-monthly. Mr. Nott will report to the TAC the progress of the project at each quarterly TAC meeting. WSSC coordinates outreach for the TAC and so the WSSC Outreach Office will retain responsibility to assist with community outreach in conjunction with the Patuxent Riverkeeper. Attachments to this proposal include a list of partner organizations. In some way, all of those listed have agreed to assist with getting work done. Formal agreements are in different stages depending on the timing of a partner's needed involvement.

All volunteers will be treated as well coordinated members of a project team. Refreshments and educational material will be available when their services are used. It is envisioned that volunteers will assist with site preparation, planting, and maintenance activities. All volunteer on-site activity will be coordinated by a qualified professional. Our House, Inc., and Gold Leaf Group have the capability to provide heavy machinery and qualified laborers to assist with the site preparation, planting, and maintenance.

County and state partners have offered technical assistance throughout the entire project. Landscape design, engineering, and planning assistance have all been offered to the phase of this project that the Targeted Watershed Initiative would fund as well as other phases of the project. Soil Conservation District staffs have offered to work directly with private landowners when needed. DNR and MNCPPC conservationists will provide wetlands restoration-planning assistance. MDE and Montgomery County DEP will provide technical guidance and engineering oversight. WSSC has been providing direct funding for project management since August 2006. This funding continues through June 30, 2008 for a total value of approximately \$200,000. This funding provided site assessments, coalition building, and project planning services. For the duration of the project, WSSC's Outreach office will provide outreach services.

G. Dissemination: The installation of a riparian buffer at Reddy Branch has been planned not only to improve the subwatershed but also to serve as a replicable demonstration for the Patuxent Reservoirs watershed. First, the project is the first of this kind to be planned, coordinated and implemented by the TAC. TAC members are already planning duplicative projects for implementation. Second, the project is the first-known in the reservoir watershed where so many government agencies are offering resources and working together. Lessons learned through its implementation will be shared with the Potomac watershed protection group and other WSSC operational departments. Third, the general public will have access to information on the

riparian buffer planting implementation steps and successes through signage on site and an exhibit at the Brighton Dam nature center.

H. Technical Assistance Needs: *[This element may be included as an appendix and will not count towards the page limit.]* This project has been reviewed by officials in three counties, Maryland DNR and MDE. Members of the TAC strove to assemble the technical expertise necessary to successfully implement the project. Forestry and soil conservation advice have been provided by MSCD, DNR and MNCPPC have provided stream ecologists, ecologic assessment assistance has been provided by Versar under contract to WSSC, planting advice has been provided by MNCPPC and Versar, and project planning has been provided to Our House, Inc. by MNCPPC, MDEP, WSSC and contractors. Upon implementation, financial management will be provided by Our House, Inc. If unforeseen circumstances arise, additional assistance will be requested from NFWF and NEMO.

III. Evaluation

Adaptive Management: This project is well suited to adapt to changes under the guidance of the integrated, multidisciplinary management team that guides the project (the TAC). The partners will monitor the project's effectiveness by assigning teams to visually monitor the reforestation, post-planting sampling, and ongoing water quality monitoring at the Rocky Gorge reservoir. This information will be used to adjust the management of the restoration areas and the planning for the next phases of restoration.

Mid- course corrections will be discussed in the quarterly TAC meetings – with partners invited to attend. The decision to make a mid-course change will be in the control of Our House as coordinators, however it is anticipated that Our House will consult with all partners prior to significant changes in approach.

Potential Negative Impacts: In this particular topography it is difficult to imagine negative impacts of the riparian buffer. The most likely problems will result from installation of the deer exclosures. Neighbors could be unhappy with deer exclosures because it will increase the deer browsing in other areas. The existing forest could be impacted by the installation of deer exclosures as well. Additionally, removal of invasive plants might leave exposed soil, however, mulch is intended to address that risk. There could also arise a one-time siltation problem at the time of planting. Necessary mitigation measures would have to be implemented to minimize the risk.

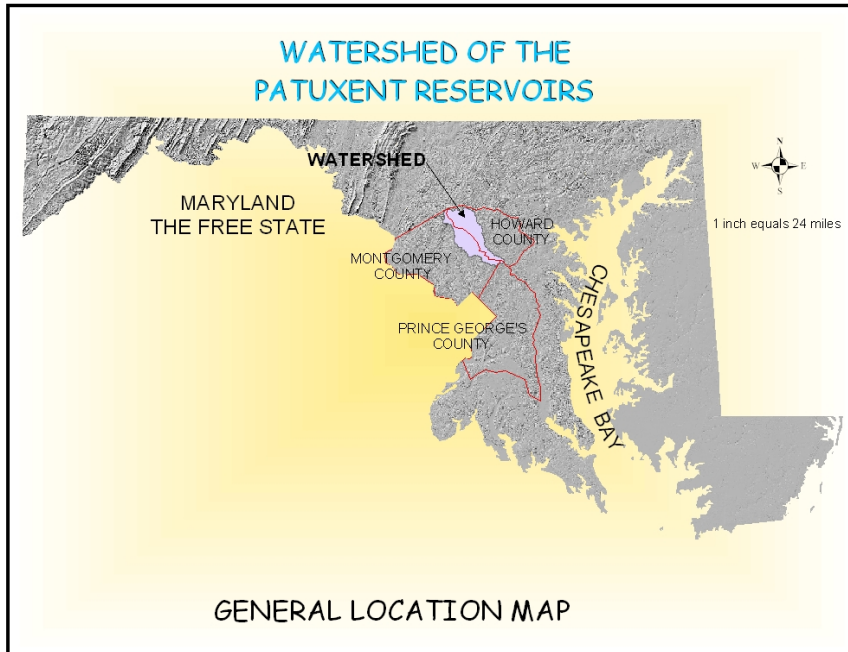
External Effects: The most likely factor that may affect the buffer installation would be extreme weather following installation of the buffer. Extreme weather could necessitate replanting if a significant portion of the plants are destroyed. In addition, if there is a dry summer following the spring planting, watering could be an issue.

Transferability: The Reddy Branch buffer has been planned not only to improve the subwatershed but also to serve as a replicable demonstration for the Patuxent Reservoirs watershed. First, the project is the first of this kind to be planned, coordinated and implemented by the TAC. TAC members are already planning duplicative projects for implementation. Second, the project is the first-known in the reservoir watershed where so many government agencies are offering resources and working together. Lessons learned through its implementation will be shared with the Potomac watershed protection group and other WSSC operational departments. Third, the general public will have access to information on the riparian buffer planting implementation steps and successes through signage on site and an exhibit at the Brighton Dam nature center.

Evaluation Logic Framework

Activities →	Indicator →	Baseline	Projected Project Output	Projected Post-Project Outcome
Test area planting	Feet of invasive plants removed	0	10,000	10,000
Test area planting	Number of trees	0	20	20
Site plan development	Site plan completed	0	1	1
Planting plan development	Planting plan completed	0	1	1
Site preparation – invasive removal	Acres of invasive plants removed	0	2	2
Plant trees measuring 1.5 to 2 inches in diameter	Number of trees	0	800	750
Install deer protection	Acres protected	0	2	2
Plant native shrubs	Number of shrubs	0	150	100
Streamside buffer installation	Acres of buffer	0	2	2
Educational signs posted	Number of signs	0	4	4
Recruit volunteers	Number of volunteers	10	50	50
Publish stories on project	number of stories printed	0	3	12
Public awareness event	Number of events	0	2	5

Supplemental Information



Hawlings watershed



Reddy Branch aerial view



Our House, Inc. property view

Current Reddy Branch Project Team Members

- MNCP&PC - Environmental Planning Division
- Montgomery County Dept of Environmental Protection
- Montgomery County Soil Conservation District
- Montgomery County Dept of Permitting Services
- Wash. Suburban San. Comm. Environmental Group
- Wash. Suburban San. Comm. Outreach Group
- Maryland Department of Natural Resources
- Maryland Department of the Environment
- Howard County Soil Conservation District
- Howard County Dept of Planning & Zoning
- Howard County Dept Public Works Stormwater Management Division
- Howard County Health Department
- Prince George's County Dept of Environmental Resources
- Prince George's County Health Department
- Gold Leaf Group
- Audubon
- Patuxent Riverkeeper
- O'Doherty Group Landscape Architecture.



Policy Board

William Barnes Howard Soil Conservation District
 Robert Hoyt..... Montgomery County
 Theresa D. Daniell..... Washington Suburban Sanitary Commission
 Oscar Rodriguez Maryland National Capital Park and Planning Commission
 George Lechluder Montgomery Soil Conservation District
 Ken Ulman,..... Howard County
 Charles Wilson, Chair..... Prince George's County

, 2008

Theresa D. Daniell
 Acting General Manager
 Washington Suburban Sanitary Commission
 14501 Sweitzer Lane
 Laurel, MD 20707

RECEIVED

APR 28 2008

General Manager's Office

Dear Ms. Daniell:

On April 1, 2008 the second Patuxent Reservoirs Protection Group, Technical Advisory Committee (TAC) meeting of the year was held. I would like to bring the following items to your attention.

- On March 14, approximately 200 trees were planted in a riparian buffer along Reddy Branch Stream Valley Park near Olney as a part of our larger initiative to improve the stream corridors throughout the watershed. Photographs of the planting are enclosed.
- 1,100 surveys were mailed to landowners in the Cattail Creek Watershed (Howard County) to identify land with 6 or less horses. Approximately 250 of the surveys had been returned at the time of the TAC meeting. The results of the survey will be used to target outreach and education to these landowners.
- On April 5, the WSSC and Montgomery County Department of Environmental Protection sponsored sites for the Patuxent Watershed Clean Up
- On April 12, a Patuxent Reservoir Watershed Festival was held on WSSC property on Brooklyn Bridge Road in Prince George's County near the access road to T. Howard Duckett Dam. Activities included the Wetlands on Wheels, a rain barrel raffle, children's craft activity and many informational displays including Rainscapes and wind power.
- *sent in the* The support contract position for the TAC is due to expire on June 30. A letter was sent to the WSSC General Manager concerning this and the support of continued funding of the position.
- The 2008 Policy Board meeting has been tentatively scheduled for Thursday October 16, 2008, from 1:30 to 2:30, at the Brighton Dam recreation area.
- The next TAC meeting is scheduled for Jun 10, 2008 at WSSC's Sweitzer Lane location in Laurel. The budget and work plan for fiscal year 2010 will be discussed.
- The Annual Report for 2007 has been posted on WSSC's website (www.wsscwater.com) under Environmental Reports. The Technical Support Document is under review.

Thank you for your continued support of the TAC.

Sincerely,

Kristal M. McCormick
 Kristal McCormick, Chair
 Technical Advisory Committee

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**Technical Advisory Committee**

Gul Behsudi, MDE..... Meosotis Curtis, MCDEP ..... Mohammad Habibian, WSSC  
 Jerry Maldonado, PGDER..... Kristal McCormick, HSCD..... John McCoy, MD-DNR  
 Paul Meyer, PGDH..... Bert Nixon, HCHD..... Susan Overstreet, HCP & Z  
 David Plummer, MSCD ..... Royden Powell, MDA ..... Howard Saltzman, HCDPW  
 Katherine Nelson, MNCPPC ..... Stan Wong, MCDPS.....



DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett  
*County Executive*

Robert Hoyt  
*Director*

May 2, 2008

Ms. Kristal McCormick, Chair  
Technical Advisory Committee  
c/o Carrie Capuco, Committee Liaison  
Washington Suburban Sanitary Commission  
Environmental Services  
14501 Sweitzer Lane  
Laurel, Maryland 20707

Dear Ms. McCormick:

I greatly appreciated your letter of April 24, 2008, which provided an update of the Technical Advisory Committee (TAC) activities. I am pleased to see that the TAC agencies are continuing to show progress to ensure the protection of the reservoirs, their watersheds, and their tributary streams.

On a personal note, I also appreciate your providing me a large lead time in scheduling the annual meeting in October for the Policy Board. I look forward to meeting you and the other TAC members there and discussing with my fellow Policy Board members how we can maintain and enhance our efforts to achieve our Action Plan goals.

Thank you once again for your commitment to protecting the Patuxent Reservoirs and their watersheds.

Sincerely,

Robert G. Hoyt  
Director

**Office of the Director**

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[www.montgomerycountymd.gov](http://www.montgomerycountymd.gov)



# Washington Suburban Sanitary Commission

14501 Sweitzer Lane • Laurel, Maryland 20707-5902

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GENERAL MANAGER  
Teresa D. Daniell

INTERIM DEPUTY  
GENERAL MANAGER  
Rudolph S. Chow

June 3, 2008

Ms. Kristal McCormick, Chair  
Technical Advisory Committee  
Patuxent Reservoirs Protection Group  
708 Lisbon Center Drive, Suite E  
Woodbine, MD 21797

Dear Ms. McCormick:

Thank you for your April 28, 2008 letter sharing with us a summary of watershed protection work that recently has been achieved. I would like to specifically address your request for the Washington Suburban Sanitary Commission (WSSC) to continue funding the contract person who supplements our own staff in supporting the Technical Advisory Committee (TAC).

As our letter of March 16, 2006 indicated, a copy of which is attached, the WSSC committed to fund a contract position for a two-year trial period to pursue funding grants and supplement our staff contribution toward supporting efforts related to the protection of the Patuxent Reservoirs watershed. The WSSC honored its commitment; a contract person has been on board since August 2006.

As you noted, the trial period will be over soon. Unfortunately, the trial has not produced a grant of noticeable value. While we are concerned about this lack of success, given the importance of source protection, we plan to renew the contract for one more year. However, unless this effort becomes much more effective, we intend to discontinue this trial, starting July 2009, in favor of more effective uses of our limited resources. We are interested in exploring other, more productive opportunities and also encourage the TAC to consider more effective options and report back to the Policy Board meeting to be held later this year.

Sincerely,

Teresa D. Daniell  
Interim General Manager

cc: William Barnes, Howard Soil Conservation District  
Fariba Kassiri, Montgomery County  
R. Bruce Crawford, Maryland National Capital Park and Planning Commission  
George Lechlinder, Montgomery Soil Conservation District  
Ken Ulman, Howard County  
Charles Wilson, Prince George's County  
Technical Advisory Committee





DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett  
*County Executive*

Robert Hoyt  
*Director*

August 11, 2008

Ms. Kristal McCormick, Chair  
Technical Advisory Committee  
c/o Carrie Capuco, Committee Liaison  
Washington Suburban Sanitary Commission  
Environmental Services  
14501 Sweitzer Lane  
Laurel, Maryland 20707

Dear Ms. McCormick:

I appreciate your letter of July 1, 2008, on the continuing activities of the Technical Advisory Committee (TAC). I noticed that the TAC agencies have discussed the creation of a comprehensive watershed plan, which does seem necessary to ensure that the pending total maximum daily loads (TMDLs) for nutrients and sediments in the reservoirs are achieved and maintained. I also noted the results from the horse owners' survey, in particular the interest in getting more information about possible conservation practices. Their cooperation, as well as that of the many other private property owners in the largely rural and agricultural watershed, will be needed to implement best management practices and meet TMDL allocations to the reservoirs.

I have set aside time to attend the annual meeting in October for the Policy Board. I look forward to meeting you and the other TAC members and discussing ways to protect and restore the Reservoirs and their watershed resources.

Thank you once again for your commitment to protecting the Patuxent Reservoirs and their watersheds.

Sincerely,

Robert G. Hoyt  
Director

**Office of the Director**

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[www.montgomerycountymd.gov](http://www.montgomerycountymd.gov)

**Chesapeake and Atlantic Coastal Bays 2010 Trust Fund  
Local Implementation Grant Proposal for  
Howard and Montgomery Soil Conservation Districts'  
Patuxent Reservoirs Watershed Nutrient Reduction Initiative  
Manure Management Assistance for Un-regulated Equine Operations**



**PATUXENT RESERVOIRS WATERSHED**

## 1.0 General Description

**The Patuxent Reservoirs Watershed** lies in the northern Piedmont region of Maryland along the main stem of the Patuxent River. The watershed extends 132 sq. miles encompassing parts of three counties, Montgomery, Howard, and Prince George's. It is a significant portion of the Patuxent River, the longest river in the State of Maryland. **The project area includes all of the first order streams that flow into the Upper Patuxent River and the two Reservoirs** – Triadelphia and Rocky Gorge. The Patuxent Reservoirs supply water to approximately 1.6 million people over nearly 1,000 square miles.

Identified in the Chesapeake and Atlantic Coastal Bays 2010 Trust Fund program as a medium priority watershed, **it is located directly up-stream of multiple high priority watersheds.** It is a suburban-agricultural area containing many farmettes. It was identified in 2002 as having the highest concentration of horses in the state (*2002 Maryland Equine Census*). In this watershed traditional agricultural operations are transferring to equine operations.

**A multi-government protection group, established in 1996, coordinates efforts to protect, enhance, and soon, implement total maximum daily loads (TMDLs) in this watershed.** In 1996, the Patuxent Reservoirs Watershed Protection Agreement was signed by Howard, Montgomery, and Prince George's Counties, Howard and Montgomery Soil Conservation Districts, Maryland-National Capital Park and Planning Commission (M-NCPPC), and the Washington Suburban Sanitary Commission (WSSC) creating a Policy Board and Technical Advisory Committee (TAC) to work together to protect watershed resources. Through interagency cooperation, this unique cooperative partnership has developed a strategic goal to protect the Patuxent Reservoirs as "partners in implementation and acceleration of source water protection and bay restoration."

### POLICY BOARD

Howard Soil Conservation District  
Washington Suburban Sanitary  
Commission  
Montgomery County  
Maryland-National Capital Park and  
Planning Commission  
Montgomery Soil Conservation District  
Howard County  
Prince George's County

Howard Soil Conservation District and the Montgomery Soil Conservation District are taking the lead in **this non-point source restoration initiative that can demonstrate reduction of nutrients by significantly reducing nitrogen and phosphorus in the receiving waters through facilitating implementation of better manure management practices on lands with 7 or less horses.** These operations fall outside of current USDA and State cost-share incentive programs that are available to farmers for the installation of Best Management Practices (BMPs).

**The specific problem to be remediated is nitrogen and phosphorous in the receiving water.**

In the Howard County portions of the watershed, the estimate is that implementation of BMPs can remove 11,573 pounds of nitrogen per year (5.8 tons/yr)'; and achieve phosphorus removal from the receiving water of 2,250 pounds per year (1.13 tons/yr). Based on a 15 year lifespan for an Animal Waste Storage Facility, over the life of the conservation practices, the total pollutant removal is estimated to be: 173,595 pounds (86.8 Tons) of N, and 33,750 pounds (16.9 Tons) of P. In the Montgomery County portions of the watershed, the estimates are that implementation of BMPs can

| Howard County                                                                                                                                                | Montgomery County                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Total pollutant removal is estimated to be: 173,595 pounds (86.8 Tons) of N, and 33,750 pounds (16.9 Tons) of P over the life of the conservation practices. | Total pollutant removal is estimated to be: 106,831 pounds of N, and 19,578 pounds of P over the life of the conservation practices. |

remove 7,122 pounds of nitrogen per year; and achieve phosphorus removal from the receiving water of 1,305 pounds per year. Based on a 15 year lifespan for an Animal Waste Storage Facility, over the life of the conservation practices, the total pollutant removal is estimated to be: 106,831 pounds of N, and 19,578 pounds of P. The amount of manure production of the 1025 horses within the Triadelphia watershed is equivalent to the production of human waste from a city the size of Salisbury or Cumberland, approximately 18,825 people. This is based on horses producing an average of 50 pounds of manure per day and humans producing an average of 2.45 pounds per day (both scientifically accepted numbers). The total production of manure from horses is 18,706,250 pounds per year in the watershed.

Moreover, **this N and P can be removed from the watershed very economically at the cost of approximately \$6.00 per pound.** The general approach to be used is a **multi-level behavioral change program over a period of 3 years.** The need for this initiative was identified as a result of surveys that were funded by the Chesapeake Bay Trust in 2007. The surveys identified hundreds of landowners in the watershed that were interested in learning better manure management and other conservation practices. Working with this targeted group of land owners is extremely important because these property owners may not be part of the traditional farming community and may be unaware of steps they can take to protect the watershed using the available agricultural assistance programs. Federal, State, and County funding assistance programs exist<sup>1</sup>, but these landowners often have low participation in existing programs. The cost of best management practices and manure management can be an impediment to proper management. This initiative is designed to make the cost of manure management more attainable and accepted – economically and socially. The elements of the initiative are as follows:

- **Incentives for installation of best management practices (BMPS)** with an emphasis on barn rain gutter installation, to keep concentrated clean water away from the manure; 4, 8, or 12 animal waste storage facility construction; and composting capabilities. Landowners will be offered flat rate cost reimbursement equal to approximately 87.5% of the cost for installation of the BMP. Design services will be provided in-kind by SCD and MDA staff. Design approval will be expedited by the use of a qualified contract Professional Engineer as needed.
- Without damaging the existing industry, a **pilot privatization** effort whereby the SCDs will identify a qualified minority or woman-owned operation that can be offered incentives and assistance **to design and operate a commercial manure conversion to compost facility** with the intent of working toward nutrient trading in the future. SCDs will enable removal and composting of manure on all participating properties. (Potential sites are already being scoped. Among those under consideration are WSSC’s former Site 2 in Calverton and two private mulch/topsoil manure processors adjacent to Howard County in Baltimore and Carroll Counties).

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<sup>1</sup> MACS, CREP, WHIP, Patuxent Reservoir Protection BMP Cost Share, Stream ReLeaf, MDA Conservation Innovation Grants



- **Equipment sharing** for smaller manure spreaders that can be rotated among the smaller farms at low to no cost for landowners.
- Multi-media **social marketing** focusing on the importance of proper manure management to the watershed that is targeted to the horse owners and land owners.

One of the most significant aspects of this initiative is how easily **this methodology can be replicated** and applied to other watersheds in the State and throughout the Bay region. Land ownership patterns throughout the region indicate that the smaller farmette type properties will represent an increasingly significant component of future land base in the Bay watershed. Developing strategies now will address this future pattern of growth with considerable tools for future land managers and land owners.

## 2.0 Specific Guidelines

The Patuxent River is composed of multiple sub-sheds that are identified as priority watersheds for the purposes of the Local Implementation Grant program. The Patuxent Reservoirs Watershed is the upstream headwaters for several of the priority watersheds down stream. **This initiative focuses on the 26,500 acres of agricultural, non-forested land in the Patuxent Reservoirs Watershed.**

Since signing the watershed agreement in 1996, three counties and multiple state agencies have been working together to leverage limited funds to the highest degree possible for source water protection and Bay restoration in the Patuxent Reservoirs Watershed. Currently, quarterly meetings are held where the county agencies representatives to the TAC discuss progress on individual projects and group initiatives. Progress on these initiatives is tracked in an annual work plan. Reports are provided to senior officials at an annual meeting of the Policy Board and in quarterly written updates. This process enables all TAC agencies to collectively benefit from lessons learned, share information, and openly discuss multi-jurisdictional issues. Examples of collaborative projects are listed in the attached work plan. Combined, TAC agencies have expended millions of dollars in planning, analysis, and implementation activities in the watershed. Since 2006, partnership coordination alone has been contracted out by WSSC for \$100,000 per year. **This initiative is a key element of the implementation of the watershed management plans.**

### TECHNICAL ADVISORY COMMITTEE

Martin Chandler Washington Suburban Sanitary Commission  
 Kristal McCormick, Howard Soil Conservation District  
 Gul Behsudi Maryland Department of the Environment  
 Meosotis Curtis Montgomery County Department of Environmental Protection  
 Jerry Maldonado Prince George's County Department of Environmental Resources  
 John McCoy Maryland Department of Natural Resources  
 Paul Meyer Prince George's County Health Department  
 Katherine Nelson Maryland-National Capital Park and Planning Commission  
 Bert Nixon Howard County Health Department  
 Susan Overstreet Howard County Department of Planning and Zoning  
 David Plummer Montgomery Soil Conservation District  
 Royden Powell Maryland Department of Agriculture  
 Howard Saltzman Howard County Department of Public Works  
 Mark Symborski Maryland-National Capital Park and Planning Commission  
 Stan Wong Montgomery County Department of Permitting Services

**TABLE 3 PATUXENT RESERVOIRS WATERSHED WORK PROGRAM FOR FY09 and FY10**

| <b>PRIORITY RESOURCES PROTECTED</b>                                                                                                                                      | <b>IMPLEMENTATION NEED</b>                          | <b>IMPLEMENTATION ITEM</b>                                                      | <b>AGENCY</b>                | <b>FY 2009</b>        | <b>FY 2010 (requested)</b>           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------------------|------------------------------|-----------------------|--------------------------------------|
| Reservoir/Water Supply                                                                                                                                                   | Reservoir and tributary water chemistry monitoring  | Reservoir monitoring and lab analysis                                           | WSSC                         | In-kind               | In-Kind                              |
|                                                                                                                                                                          |                                                     | 5 US Geological Survey (USGS) watershed flow gauge stations                     | WSSC                         | \$50,000              | \$60,000                             |
|                                                                                                                                                                          |                                                     | <b>Conduct second round of biomonitoring program in the reservoir watershed</b> | HC                           | \$0                   |                                      |
| Stream System<br>Aquatic Biota                                                                                                                                           | Tributary biological and habitat monitoring         | Upper Patuxent and Hawlings River                                               | MC                           |                       |                                      |
|                                                                                                                                                                          |                                                     | Hawlings River Restoration Monitoring                                           | MC                           | \$0                   |                                      |
|                                                                                                                                                                          |                                                     | Cherry Creek Implementation – Reach 2                                           | HC                           | \$330,000             |                                      |
| Reservoir/Water Supply<br><br>Stream System<br><br>Aquatic Biota                                                                                                         | Stream corridor management                          | Hawlings River Project Implementation                                           | MC                           | \$0                   |                                      |
|                                                                                                                                                                          |                                                     | Reddy Branch Project Implementation                                             | M-NCPPC<br>MC<br>MSCD<br>DNR | \$100,000             | \$50,000                             |
|                                                                                                                                                                          |                                                     | Funding for local cost-share program                                            | HC, MC, WSSC                 | No additional funding |                                      |
| Reservoir/Water Supply<br><br>Stream System<br><br>Aquatic Biota<br><br>Rural Character and Landscape<br><br>Public Awareness and Stewardship                            | Agricultural management local cost-share initiative | Program oversight for voluntary implementation of agricultural BMPs             | HSCD, MSCD                   | In kind services      |                                      |
| Reservoir/Water Supply<br><br>Terrestrial Habitat<br><br>Stream System<br><br>Aquatic Biota<br><br>Rural Character and Landscape<br><br>Public Awareness and Stewardship |                                                     | Public outreach and involvement initiatives                                     | Rainscapes Rebates           | MC                    | \$\$ percentage of county allocation |

**Local government, community activists, charitable organizations, schools, businesses, and hobbyists are all engaged** with these partnership activities. Through the TAC, three counties have representatives from three

of their agencies actively involved in the partnership. Outreach activities are held in the watershed celebrating Earth Month each April. Workshop leaders and exhibitors at these events include watershed businesses, schools, and educational organizations, including Montgomery College and Howard Community College. The Partnership also supports implementation of the Maryland Green Schools program throughout the watershed. WSSC staff will provide technical assistance to any school in the watershed interested in becoming a Maryland Green School – solidifying community engagement in watershed protection activities.

**For this manure management initiative alone, 728 property owners (37% of those surveyed) responded to the April 2008 survey,**

**and 159 horse hobbyists expressed interest in watershed protection.** In other watershed endeavors, non-profit organizations such as the Patuxent Riverkeeper, Isaac Walton League Wildlife Achievement Chapter, Audubon, and Master Gardeners have all supplied volunteers. These networks and

| Presenters for IDO - Pest (no date) 4/12/2008, 12 - 4 pm | WSSC Property at Brooklyn Bridge Rd.        |
|----------------------------------------------------------|---------------------------------------------|
|                                                          | ERV - First Aid                             |
| MNCP&PC                                                  | Animals for kids                            |
| Scout Troop                                              | Childrens Craft Activity                    |
| EUROMOTORS, Germantown                                   | (SMART Car Fortwo)                          |
| Md. Cooperative Ext. Master Gardeners                    | Integrated Pest Management                  |
| School - Bond Mill                                       | Display -- Bake Sale                        |
| School - Scotchtown Hills                                | Display - Food Sale                         |
| WSSC                                                     | Sewer Cleaning and Inspection Truck Display |
| WSSC                                                     | Tours/ Information-Staging                  |
| Constellation Energy                                     | Wind Power                                  |
| Howard County                                            | Cherry Creek                                |
| Howard County Soil Conservation                          |                                             |
| Isaak Walton League Damascus Chapter                     | Information/Volunteer Opportunities         |
| Mont. Co DEP                                             | RainScapes Program                          |
| Montgomery County DEP                                    | Composting                                  |
| Patuxent Riverkeeper                                     | Programs/Events/Volunteer Opportunities     |
| Prince Georges County DER                                | Enviroscape Demonstration and Information   |
| Prince Georges County DER                                | Recycling Program                           |
| Prince Georges County Health Dept.                       | Sewage disposal and septic system video     |
| Shaklee Products                                         | Enviro-Friendly Products                    |
| Southern Md. Oyster Cultivation Soc                      | Oyster demonstration                        |
| Urban Nutrient Management Work Group                     | Fertilizer Use                              |
| WSSC                                                     | Wastewater Treatment Info.                  |
| WSSC                                                     | Rain Barrel raffle for Water Fund           |
| WSSC                                                     | Community Relations Table                   |
| WSSC and PRWPG                                           | Water Quality Sampling and reservoir maps   |

partnerships are publically documented through annual publication of the TAC reports on the WSSC web site and their periodic discussion in meetings of the Environmental Advisory Committee to the WSSC.

This proposed manure management assistance addresses a nutrient load large enough to cause a change in the volume of pollutants discharged to the targeted water body, yet it focuses on an area small enough to measure impact. Once fully implemented, **up to 18 million pounds of manure can be eliminated in the watershed**. Furthermore, it should be noted that this 18 million pounds is based on the number of horses documented in the survey responses. With a 37% response rate, it is reasonable to anticipate that actual manure removal could be double that amount. Measurable changes in nutrient levels should be detected quickly.

**The prime sponsors of this initiative are committed** to providing the maximum benefits with minimal paperwork for the landowners, yet maintaining accountability for the investment of funds. Innovative BMPs have been utilized occasionally in the past where landowners have demonstrated a willingness and aptitude for non-traditional management of the resources. An example would be the construction of a manure holding facility for horse manure constructed of straw bales. While shorter lived, the facility gives owners the transition time and management practice needed to solidify investment in a more durable facility. **The Soil Conservation Districts have expertise** in matching accomplished horse facility managers with new owners through informal discussions and formal Pasture Walks held throughout the year at horse operations throughout the watershed. This mentoring and showcasing has provided an informal network of horse operations with similar goals, but needs to be expanded to accomplish the natural resource goals of the initiative.

### 3.0 Evaluation Criteria

**This initiative is scientifically feasible.** The **nutrient reduction** as proposed in the *“Total Maximum Daily Loads of Phosphorous and Sediment for Triadelphia Reservoir and Total Maximum Daily Loads of Phosphorous for Rocky Gorge Reservoir, Howard, Montgomery and Prince George’s Counties, Maryland” (TMDL)* by the Maryland Department of the Environment (July 2007) **is scientifically feasible.** Once approved this **will require implementation.** The Tributary Team has advocated for such reduction in nutrients.

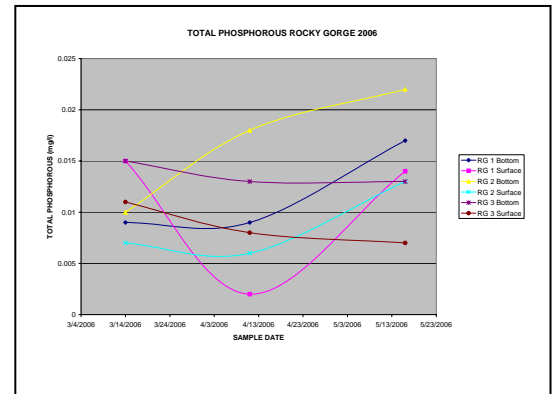


Surveys **have already identified willing participants.** Initial removal of the manure from the land will **shift the unmanaged nutrients from watershed lands to a controlled composting facility.** Through on-going water quality monitoring activities, the Partnership will be able to

demonstrate the effect of the initiative on water quality. For example, the Upper Patuxent Watershed Study completed by the Montgomery Department of Environmental Protection contains specific monitoring data from the Montgomery County portion of the watershed. This data may serve as a baseline to measure several water quality elements.

The projected removal of up to 18 million pounds of manure is an amount that, once under the control of the SCDs, will be **large enough to cause a nutrient reduction that can be measured**. In fact, given the 37% return rate on the CBT-funded survey, the number of horses and associated manure could conceivably double.

In the reservoirs watershed, 100% of the water is temporarily contained in the 2 drinking water reservoirs. Sampling occurs routinely in each reservoir. This water quality data is compiled annually and reported publically. WSSC removes up to 10% of the water in the reservoirs for treatment as a drinking water source. The remaining 90-99% flows through to the lower reaches of the Patuxent River Watershed. Sustainability will be achieved as the program participants install and use the promised BMPs. Consequently, based on a 15 year lifespan for an Animal Waste Storage Facility the total pollutant **removal is estimated to be 173,595 pounds (86.8 Tons) of N, and 33,750 pounds (16.9 Tons) of P from the Chesapeake Bay Watershed over the life of the conservation practices**. Measurable reduction in fecal coliform will likely occur as well. Conceivably, the lower reaches of the Patuxent could benefit from over 100 Tons of nutrient reduction as a result of this initiative.

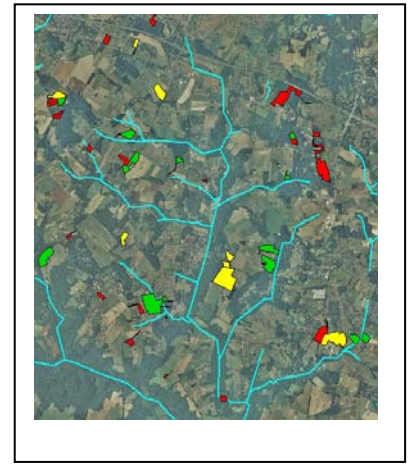


This nutrient reduction initiative is **very cost effective**. Agricultural BMPs are document to be among the most cost effective measures for nutrient reduction, and this initiative is consistent with the trend. Estimates have put the cost per pound of nitrogen removal just under \$6.00 per pound, and phosphorus at \$32 per pound. The low cost makes it a remarkably efficient way to impact nutrient levels throughout the watershed. Although the Reservoirs Watershed has diverse land use, different strategies are being used to address nutrient reduction in those other portions of the watershed. For example, MNCPPC has recently completed a significant stream buffer installation on public land adjacent to the higher density housing community of Olney. Due to the maturity of the trees planted (2-inch) and the extent of deer protection installed, the cost per pound of nutrient removal was significantly higher.

| Practice                                          | # in Howard Co. | # in Montgomery Co | Total in Project Area | Cost per practice | Total Cost in Project Area | Lbs of N controlled per practice per year | Total lbs of N controlled by practice in project per year | Total lbs of N controlled by practice over lifespan of practice (15 years) | Cost per pound of N over project lifespan |
|---------------------------------------------------|-----------------|--------------------|-----------------------|-------------------|----------------------------|-------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------|
| Animal Waste                                      | 18              | 9                  | 27                    | \$9,000           | \$243,000                  | 531                                       | 14337                                                     | 215055                                                                     | \$1.13                                    |
| Composter                                         | 19              | 13                 | 32                    | \$12,000          | \$384,000                  |                                           | 0                                                         | 0                                                                          |                                           |
| Watering System                                   | 16              | 11                 | 27                    | \$3,500           | \$94,500                   |                                           | 0                                                         | 0                                                                          |                                           |
| Stream fencing (forested buffer)                  | 3               | 6                  | 9                     | \$7,000           | \$63,000                   | 27.28                                     | 245.52                                                    | 3682.8                                                                     | \$17.11                                   |
| Fences for grazing stream protection with fences) | 31              | 14                 | 45                    | \$7,000           | \$315,000                  | 6.79                                      | 305.55                                                    | 4583.25                                                                    | \$68.73                                   |
| Stream crossing                                   | 3               | 5                  | 8                     | \$10,000          | \$80,000                   |                                           | 0                                                         | 0                                                                          |                                           |
| Pasture seeding (HEL)                             | 47              | 22                 | 69                    | \$1,750           | \$120,750                  | 9.55                                      | 658.95                                                    | 9884.25                                                                    | \$12.22                                   |
| Heavy Use areas                                   | 12              | 9                  | 21                    | \$6,000           | \$126,000                  | 69                                        | 1449                                                      | 21735                                                                      | \$5.80                                    |
| Tree Planting                                     | 20              | 11                 | 31                    | \$2,600           | \$80,600                   | 13.57                                     | 420.67                                                    | 6310.05                                                                    | \$12.77                                   |
| Erosion Control System                            | 25              | 16                 | 41                    | \$10,000          | \$410,000                  | 69                                        | 2829                                                      | 42435                                                                      | \$9.66                                    |
| <b>Total</b>                                      | <b>194</b>      | <b>116</b>         | <b>310</b>            |                   | <b>\$1,916,850</b>         |                                           | <b>20245.7</b>                                            | <b>303685.35</b>                                                           | <b>\$6.31</b>                             |

| Practice                                          | # in Howard Co. | # in Montgomery Co | Total in Project Area | Cost per practice | Total Cost in Project Area | Lbs of P controlled per practice per year | Total lbs of P controlled by practice in project per year | Total lbs of P controlled by practice over lifespan of practice (15 years) | Cost per pound of P over project lifespan |
|---------------------------------------------------|-----------------|--------------------|-----------------------|-------------------|----------------------------|-------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------|
| Animal Waste                                      | 18              | 9                  | 27                    | \$9,000           | \$243,000                  | 104                                       | 2808                                                      | 42120                                                                      | \$5.77                                    |
| Composter                                         | 19              | 13                 | 32                    | \$12,000          | \$384,000                  |                                           | 0                                                         | 0                                                                          |                                           |
| Watering System                                   | 16              | 11                 | 27                    | \$3,500           | \$94,500                   |                                           | 0                                                         | 0                                                                          |                                           |
| Stream fencing (forested buffer)                  | 3               | 6                  | 9                     | \$7,000           | \$63,000                   | 2.15                                      | 19.35                                                     | 290.25                                                                     | \$217.05                                  |
| Fences for grazing stream protection with fences) | 31              | 14                 | 45                    | \$7,000           | \$315,000                  | 0.91                                      | 40.95                                                     | 614.25                                                                     | \$512.82                                  |
| Stream crossing                                   | 3               | 5                  | 8                     | \$10,000          | \$80,000                   |                                           | 0                                                         | 0                                                                          |                                           |
| Pasture seeding (HEL)                             | 47              | 22                 | 69                    | \$1,750           | \$120,750                  | 0.25                                      | 17.25                                                     | 258.75                                                                     | \$466.67                                  |
| Heavy Use areas                                   | 12              | 9                  | 21                    | \$6,000           | \$126,000                  | 13                                        | 273                                                       | 4095                                                                       | \$30.77                                   |
| Tree Planting                                     | 20              | 11                 | 31                    | \$2,600           | \$80,600                   | 1.19                                      | 36.89                                                     | 553.35                                                                     | \$145.66                                  |
| Erosion Control System                            | 25              | 16                 | 41                    | \$10,000          | \$410,000                  | 13                                        | 533                                                       | 7995                                                                       | \$51.28                                   |
| <b>Total</b>                                      | <b>194</b>      | <b>116</b>         | <b>310</b>            |                   | <b>\$1,916,850</b>         |                                           | <b>3728.44</b>                                            | <b>55926.6</b>                                                             | <b>\$34.27</b>                            |

**We are beginning implementation.** This initiative **can be more fully implemented as soon as funds are secured.** Initiative scoping and planning have been funded by the partnership and the Chesapeake Bay Trust. Load reduction goals were identified through the development of the TMDLs, and promulgation is anticipated in fall of 2009. During FY09 WSSC contractors will compile existing watershed studies into a TMDL implementation plan. This nutrient reduction initiative will be a key component of that plan. As stated above, each year an annual report and technical supplement are prepared and made available to the public summarizing restoration activity, outreach, and water quality in the watershed. Quantitative pre and post implementation data currently exists and will in the future through WSSC monitoring – both in the field and through lab analysis at intake. Hot spots have already been mapped at their source and are visualized at the reservoirs where they enter the main stem. Clearly, local support already exists through willingness to participate in the survey, involvement of Patuxent Riverkeeper, Audubon, IWL-WAC, master gardeners, and WSSC EAC.



The grant **applicants are the agencies with the capability and authority to implement** the manure management assistance. The SCDs are the agencies that do this work through existing assistance programs. By targeting those properties that are ineligible for other assistance programs due to the number of animals or size of the operation, the Howard and Montgomery SCDs will be able to provide targeted assistance to small parcel horse farm owners in the watershed.

Through the reservoirs partnership TAC, **leverage of all 3 county and multiple state agencies is guaranteed throughout implementation.** In addition to the initial watershed protection agreement, an agricultural agreement has been in effect between Montgomery and Howard counties for nearly 10 years. That agreement has established a small pool of funds for cost-share of BMP installation on watershed properties where a variety of criteria apply. By pooling funds, the SCDs are already leveraging resources in the watershed. In addition, the existing partnerships can be leveraged through effective use of existing outreach events, EAC meetings, and the landowner survey responses. As a result of the survey **contact has already been made with 2047 landowners, 728 of which responded indicating a willingness to engage.** That translates into a 37% response rate which is significantly higher than statistically expected.



Water quality and habitat **improvements will be sustained** as markets for composting evolve, BMPs become routine and are maintained, and stewardship behaviors develop as a result of social marketing initiatives. The grant applicants anticipate **a healthy market will evolve for the composted manure** in a way that is similar to the market evolution of local farmers markets and organic produce.

Sustainability will follow a natural cycle. Initial manure removal will help landowners immediately see the benefits of proper manure management. BMP implementation and maintenance over the next 2 years will likely enhance habitat at stream crossing areas, and over-grazed areas. Given that the average BMP lifespan is 15 years, adequate time will be available for the compost market to evolve and stewardship behaviors consistent with the BMPs develop. Measurable changes in water quality can be monitored in a parallel fashion. Existing water quality data can be harvested from county 5-year monitoring cycles. Following BMP implementation, additional samples can be taken – even off the 5-year cycle – and compared for measure of nutrient reduction.

Social consciousness of proper manure management will be raised throughout the horse community in the watershed as a result of the proposed social marketing component of this initiative. In fact, the **CBT has recently provided \$1,350 in funding for a newsletter targeting proper manure management on the 728 survey respondent’s property**. Targeted messages will be delivered to stakeholders using a variety of messaging tools. Partners such as the Maryland Horse Council, Maryland Association of Soil Conservation Districts, Maryland Farm Bureau, East Oregon Multnomah Soil Conservation District, Equiery Magazine, local tack and feed shops, and pony clubs **are already being enlisted to assist in message delivery** through distribution of flyers and newsletters. Direct mail and electronic mail campaigns will be used to encourage program participation and voluntary adoption of stewardship behaviors. Homeowner guides will be developed similar to *From My Backyard to Our Bay* and distributed to introduce landowners to an array of other environmental issues and stewardship practices that may be applicable to their properties

|                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Partners such as the Maryland Horse Council, Maryland Association of Soil Conservation Districts, Maryland Farm Bureau, East Oregon Multnomah Soil Conservation District, Equiery Magazine, local tack and feed shops, and pony clubs <b>are already being enlisted</b> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 4.0 Budget Narrative

In implementation of the Patuxent Reservoirs Watershed Partnership Agreement, WSSC has a work plan and compiled budget prepared each year that lists the protection and restoration activities of each partnership member for the current year and the next fiscal year. In addition to the direct project budgets listed, watershed restoration and protection indirect contributions are received from partnership member agencies in the form of routine program operations. For example, forest management and reforestation in the watershed is a portion of the WSSC operational budget and contributes significantly to the success of the watershed’s health. Routine stream water quality assessment by county and state



agencies provides important data for use in measuring initiative success. Provision of local staff by state agencies contributes to the quality of services delivered throughout the watershed. If awarded an implementation grant, the SCDs are committed to seeking in-kind support from several as-yet untapped sources such as the Chesapeake Bay funders network manure track and the Innovative Technology MIP program. Both are viable partners because the State of Maryland needs a solution to handle horse manure on small farms and MIP can provide assistance to find an answer.

The expected time frame for completion is three years at which time self-management of manure will have begun to take hold. After this point, it is anticipated that portions or this entire program can be replicated state-wide.

The total request for funds is \$3,000,000 for BMP implementation and developing the composting facility; \$200,000 for social marketing; \$100,000 for manure handling equipment; and \$300,000 for the cost of private service to manage the transportation, logistics and composting of the horse manure. For a total of \$3,600,000.00. Matching funds and in-kind contributions represent 30% over and above this requested amount. (About 7 staff years from SCD's, WSSC matching money, MDA special project money and staff time, USDA, NRCS technical assistance for planning and design for about \$1M total matching funds and in-kind). This is a total initiative cost of approximately \$4.6M.

Evaluation and assessment, planning and design, and project management costs would all be in-kind provisions courtesy of Maryland Department of Agriculture, the Soil Conservation Districts, and the partnership group.

#### 5.0 Implementation Schedule, Evaluation And Reporting

Implementation activities will be evaluated and reported to the protection group in its quarterly meetings. Minutes to those meetings are a matter of public record and are posted to the internet annually in the Technical Supplement to the Annual Report of the Technical Advisory Committee of the Patuxent Reservoirs Watershed Protection Agreement Policy Board.

Results of the initiative will be evaluated in a number of ways. Baseline water quality data can be gathered from the county and state ongoing stream monitoring efforts. Although water quality data is available from WSSC both on the reservoirs and at the drinking

|                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------|
| \$3,000,000 -- BMP implementation and developing the composting facility                                                                          |
| \$200,000 -- social marketing;<br>\$100,000 -- manure handling equipment                                                                          |
| \$300,000 -- private service to manage the transportation, logistics and composting of the horse manure                                           |
| Total -- \$3,600,000.00.                                                                                                                          |
| Matching funds and in-kind contributions represent 30% over and above this requested amount.                                                      |
| -7 staff years from SCD's, WSSC matching money, MDA special project money and staff time, USDA, NRCS technical assistance for planning and design |
| Total initiative cost of approximately \$4.6M.                                                                                                    |

water intake point, and new data is gathered by WSSC monthly, the SCDs will utilize on-site surrogate evaluations and compile the results within the watershed. These evaluations are an accepted practice. They are already used throughout the Chesapeake Bay Watershed. They are based on both Chesapeake Bay Program and NRCS data

Tons of manure hauled for composting and turned into compost will be tracked and reported by the Howard and Montgomery Soil Conservation Districts. Costs will be carefully documented to monitor costs per pound of manure composted and the costs and efficiency associated with designing and installing on-farm practices for managing the manure in the future.

BMPs designed, implemented and maintained will be tracked by the SCD offices responsible for their implementation.

Stakeholders educated will be measured by numbers of flyers distributed, newsletters mailed, and surveys returned. In addition, attendees at workshops and public meetings where the program is featured will be documented as direct contacts. All of this information will be shared in the quarterly partnership meetings, and compiled in the annual report.

### Implementation Schedule

| Date              | BMP Implementation                                                                                                                                                                                                                                                                                                                                            | Manure Management Pilot                                                                                                                                                                                                                                                              |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oct-December 2008 | <ul style="list-style-type: none"> <li>• Advertise funding availability through direct mailing to survey respondents and documented small acreage horse farm owners interested.</li> <li>• Promulgate amendments to the local Patuxent Reservoirs Watershed Cost Share Program to allow \$100K in funding to be used in concert with this program.</li> </ul> | <ul style="list-style-type: none"> <li>• Make final determination of site and finalize design and site plan for composting facility.</li> <li>• Compile all existing stream sampling and water quality monitoring data.</li> </ul>                                                   |
| Jan- June 2009    | <ul style="list-style-type: none"> <li>• Complete Conservation Planning and BMP design work for landowners ready to install BMPs in initial phase of program.</li> <li>• Hold initial workshop to promote program and values of BMPs and manure management.</li> </ul>                                                                                        | <ul style="list-style-type: none"> <li>• Construct composting facility, designate contractor(s), and purchase equipment necessary.</li> <li>• Establish hauling rates, methodology for tracking volume of manure transported, tracking for overall cost/benefit analysis.</li> </ul> |

|                       |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| June – December 2009  | <ul style="list-style-type: none"> <li>• Install BMPs as appropriate for landowners participating in the first round of the program.</li> </ul>                                                                                                                                                         | <ul style="list-style-type: none"> <li>• SCD staff to attend hunt clubs and pony club meetings, local equestrian events, and complete direct mailings to horse owners.</li> <li>• Develop fact sheets to introduce potential participants to the program.</li> </ul>                                                                                                                         |
| Jan-June 2010         | <ul style="list-style-type: none"> <li>• Continue BMP installation and complete 2<sup>nd</sup> mailing to broader population of Patuxent landowners (i.e. people that didn't respond to survey, but may still own horses.)</li> <li>• Hold workshops showcasing landowner's accomplishments.</li> </ul> | <ul style="list-style-type: none"> <li>• Initiate on an introductory basis the pick-up, hauling and composting component for qualifying horse owners.</li> </ul>                                                                                                                                                                                                                             |
| June – December 2010  | <ul style="list-style-type: none"> <li>• Complete Conservation Planning and BMP design work for interested landowners from 2<sup>nd</sup> promotional phase.</li> <li>• Begin Conservation planning and BMP design for participants in the manure management pilot.</li> </ul>                          | <ul style="list-style-type: none"> <li>• Continue adding participants and tracking manure hauling progress.</li> <li>• Begin advertizing campaign for distributing compost to homeowners, gardeners, landscapers etc.</li> </ul>                                                                                                                                                             |
| Jan – June 2011       | <ul style="list-style-type: none"> <li>• Install BMPs for landowners participating in 2<sup>nd</sup> phase.</li> </ul>                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>• Install on-site BMPs for small acreage farms to enable them to manage their manure on site where applicable</li> <li>• Coordinate with contractor(s) and landowners to determine which farms will continue using the manure hauling services.</li> </ul>                                                                                            |
| June – September 2011 | <ul style="list-style-type: none"> <li>• Final documentation of Conservation practices including installation costs, associated nutrient and sediment removal, and final budget documentation requirements</li> </ul>                                                                                   | <ul style="list-style-type: none"> <li>• Evaluate all aspects of the manure management pilot to develop a comprehensive tool for duplicating this methodology throughout the Bay watershed.</li> <li>• Develop final network for manure providers and composting users to evaluate future demand for expansion of this effort to larger operations and other areas of the county.</li> </ul> |





## Policy Board

*William Barnes* ..... *Howard Soil Conservation District*  
*Robert Hoyt*..... *Montgomery County*  
*Theresa D. Daniell*..... *Washington Suburban Sanitary Commission*  
*Oscar Rodriguez*..... *Maryland National Capital Park and Planning Commission*  
*George Lechluder* ..... *Montgomery Soil Conservation District*  
*Ken Ulman,* ..... *Howard County*  
*Charles Wilson, Chair*..... *Prince George's County*

September 16, 2008

Mr. Charles Wilson, Director  
Department of Environmental Resources  
9400 Peppercorn Place, Suite 500  
Largo, MD 20774

Dear Mr. Wilson:

On September 9, 2008 the fourth Patuxent Reservoirs Protection Group, Technical Advisory Committee (TAC) meeting of the year was held. I would like to bring the following items to your attention.

- The 2008 Policy Board meeting is scheduled for Thursday October 16, 2008 at 1:30 pm at the Brighton Dam recreation area. In the event of rain, the meeting will be held in the Commissioner's Conference room (WSSC Headquarters Building) at 14501 Sweitzer Lane, Laurel, Maryland. During that meeting we will discuss 2008 accomplishments and the FY09-10 work plan. An agenda for the Policy Board meeting and the draft Work Plan are enclosed.
- On Friday October 3, 2008, the Annual Family Campfire will be held at Brighton Dam Recreation Area from 6:30 until 8:30 pm. I encourage you to consider attending the event. This year's theme is "Fun, Marshmallows, And Education About Protecting Our Water Supply." This is one of the outreach events presented by WSSC on behalf of the Patuxent Reservoirs Watershed Group each year.
- Also enclosed are photos from the watershed event that was held April 12 at Supplee Manor Park.
- The next TAC meeting is scheduled for Tuesday January 13, 2009 at WSSC's Sweitzer Lane location in Laurel.

Thank you for your continued support of the TAC.

Sincerely,

Kristal McCormick, Chair  
Technical Advisory Committee

## Technical Advisory Committee

*Gul Behsudi, MDE*..... *Meosotis Curtis, MCDEP* ..... *Mohammad Habibian, WSSC*  
*Jerry Maldonado, PGDER*..... *Kristal McCormick, HSCD*..... *John McCoy, MD-DNR*  
*Paul Meyer, PGDH* ..... *Bert Nixon, HCHD*..... *Susan Overstreet, HCP & Z*  
*David Plummer, MSCD*..... *Royden Powell, MDA*..... *Howard Saltzman, HCDPW*  
*Katherine Nelson, MNCPPC*..... *Stan Wong, MCDPS*.....



**Policy Board**

William Barnes ..... Howard Soil Conservation District  
 Robert Hoyt..... Montgomery County  
 Theresa D. Daniell..... Washington Suburban Sanitary Commission  
 Oscar Rodriquez..... Maryland National Capital Park and Planning Commission  
 George Lechluder ..... Montgomery Soil Conservation District  
 Ken Ulman, ..... Howard County  
 Charles Wilson, Chair..... Prince George's County

, 2008

The Honorable Ken Ulman  
 Howard County Executive  
 3430 Court House Drive  
 Ellicott City, MD 21043

Dear County Executive Ulman:

Chair  
 Technical Advisory Committee

**Technical Advisory Committee**

Gul Behsudi, MDE..... Meosotis Curtis, MCDEP ..... Mohammad Habibian, WSSC  
 Jerry Maldonado, PGDER..... Kristal McCormick, HSCD..... John McCoy, MD-DNR  
 Paul Meyer, PGDH ..... Bert Nixon, HCHD..... Susan Overstreet, HCP & Z  
 David Plummer, MSCD..... Royden Powell, MDA..... Howard Saltzman, HCDPW  
 Katherine Nelson, MNCPPC..... Stan Wong, MCDPS.....



**Policy Board**

*William Barnes ..... Howard Soil Conservation District*  
*Robert Hoyt..... Montgomery County*  
*Theresa D. Daniell..... Washington Suburban Sanitary Commission*  
*Oscar Rodriguez..... Maryland National Capital Park and Planning Commission*  
*George Lechluder ..... Montgomery Soil Conservation District*  
*Ken Ulman, ..... Howard County*  
*Charles Wilson, Chair..... Prince George's County*

, 2008

Theresa D. Daniell  
 Acting General Manager  
 Washington Suburban Sanitary Commission  
 14501 Sweitzer Lane  
 Laurel, MD 20707

Dear Mr. Brunhart:

Sincerely,

Chair  
 Technical Advisory Committee

**Technical Advisory Committee**

*Gul Behsudi, MDE..... Meosotis Curtis, MCDEP ..... Mohammad Habibian, WSSC*  
*Jerry Maldonado, PGDER..... Kristal McCormick, HSCD..... John McCoy, MD-DNR*  
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*David Plummer, MSCD..... Royden Powell, MDA..... Howard Saltzman, HCDPW*  
*Katherine Nelson, MNCPPC..... Stan Wong, MCDPS.....*



**Policy Board**

*William Barnes ..... Howard Soil Conservation District*  
*Robert Hoyt..... Montgomery County*  
*Theresa D. Daniell..... Washington Suburban Sanitary Commission*  
*Oscar Rodriquez..... Maryland National Capital Park and Planning Commission*  
*George Lechluder ..... Montgomery Soil Conservation District*  
*Ken Ulman, ..... Howard County*  
*Charles Wilson, Chair..... Prince George's County*

2008

Mr. Robert Hoyt  
 Acting Director  
 Department of Environmental Protection  
 255 Rockville Pike, Suite 120  
 Rockville, MD 20850

Sincerely,

Chair

Technical Advisory Committee

**Technical Advisory Committee**

*Gul Behsudi, MDE..... Meosotis Curtis, MCDEP ..... Mohammad Habibian, WSSC*  
*Jerry Maldonado, PGDER..... Kristal McCormick, HSCD..... John McCoy, MD-DNR*  
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*David Plummer, MSCD..... Royden Powell, MDA..... Howard Saltzman, HCDPW*  
*Katherine Nelson, MNCPPC..... Stan Wong, MCDPS.....*





**Policy Board**

*William Barnes ..... Howard Soil Conservation District*  
*Robert Hoyt..... Montgomery County*  
*Theresa D. Daniell..... Washington Suburban Sanitary Commission*  
*Oscar Rodriguez..... Maryland National Capital Park and Planning Commission*  
*George Lechluder ..... Montgomery Soil Conservation District*  
*Ken Ulman, ..... Howard County*  
*Charles Wilson, Chair..... Prince George’s County*

, 2008

Mr. Oscar Rodriguez  
Executive Director  
Maryland National Capital Park & Planning Commission  
8787 Georgia Avenue  
Silver Spring, MD 20910

Dear Mr. Crawford:

Sincerely,

Chair  
Technical Advisory Committee

**Technical Advisory Committee**

*Gul Behsudi, MDE..... Meosotis Curtis, MCDEP ..... Mohammad Habibian, WSSC*  
*Jerry Maldonado, PGDER..... Kristal McCormick, HSCD..... John McCoy, MD-DNR*  
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*David Plummer, MSCD..... Royden Powell, MDA..... Howard Saltzman, HCDPW*  
*Katherine Nelson, MNCPPC..... Stan Wong, MCDPS.....*



**Policy Board**

*William Barnes ..... Howard Soil Conservation District*  
*Robert Hoyt..... Montgomery County*  
*Theresa D. Daniell..... Washington Suburban Sanitary Commission*  
*Oscar Rodriquez..... Maryland National Capital Park and Planning Commission*  
*George Lechliden ..... Montgomery Soil Conservation District*  
*Ken Ulman, ..... Howard County*  
*Charles Wilson, Chair..... Prince George’s County*

2008

Mr. George Lechliden  
Montgomery Soil Conservation District  
24110 Laytonsville Road  
Gaithersburg, MD 20882

Dear Mr. Lechliden:

Sincerely,

Chair

Technical Advisory Committee

**Technical Advisory Committee**

*Gul Behsudi, MDE..... Meosotis Curtis, MCDEP ..... Mohammad Habibian, WSSC*  
*Jerry Maldonado, PGDER..... Kristal McCormick, HSCD..... John McCoy, MD-DNR*  
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*David Plummer, MSCD..... Royden Powell, MDA..... Howard Saltzman, HCDPW*  
*Katherine Nelson, MNCPPC..... Stan Wong, MCDPS.....*



**Policy Board**

*William Barnes ..... Howard Soil Conservation District*  
*Robert Hoyt..... Montgomery County*  
*Theresa D. Daniell..... Washington Suburban Sanitary Commission*  
*Oscar Rodriguez..... Maryland National Capital Park and Planning Commission*  
*George Lechluder ..... Montgomery Soil Conservation District*  
*Ken Ulman, ..... Howard County*  
*Charles Wilson, Chair..... Prince George's County*

, 2008

Mr. William Barnes  
 Howard Soil Conservation District  
 1878 Woodbine Road  
 Woodbine, MD 21791


Dear Mr. Barnes:

Sincerely,

Chair  
 Technical Advisory Committee

**Technical Advisory Committee**

*Gul Behsudi, MDE..... Meosotis Curtis, MCDEP ..... Mohammad Habibian, WSSC*  
*Jerry Maldonado, PGDER..... Kristal McCormick, HSCD..... John McCoy, MD-DNR*  
*Paul Meyer, PGDH ..... Bert Nixon, HCHD..... Susan Overstreet, HCP & Z*  
*David Plummer, MSCD..... Royden Powell, MDA..... Howard Saltzman, HCDPW*  
*Katherine Nelson, MNCPPC..... Stan Wong, MCDPS.....*

  
**Technical Advisory Committee**

*Gul Behsudi, MDE*..... *Meosotis Curtis, MCDEP* ..... *Mohammad Habibian, WSSC*  
*Jerry Maldonado, PGDER*..... *Kristal McCormick, HSCD*..... *John McCoy, MD-DNR*  
*Paul Meyer, PGDH* ..... *Bert Nixon, HCHD*..... *Susan Overstreet, HCP & Z*  
*David Plummer, MSCD*..... *Royden Powell, MDA*..... *Howard Saltzman, HCDPW*  
*Katherine Nelson, MNCPPC*..... *Stan Wong, MCDPS*.....



DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett  
County Executive

Robert Hoyt  
Director

October 15, 2008

Ms. Kristal McCormick, Chair  
Technical Advisory Committee  
c/o Carrie Capuco, Committee Liaison  
Washington Suburban Sanitary Commission  
Environmental Services  
14501 Sweitzer Lane  
Laurel, Maryland 20707

Dear Ms. McCormick:

I appreciate your letter of September 23, 2008, on the results of the most recent meeting of the Technical Advisory Committee (TAC) and preparation for the upcoming annual Patuxent Policy Board meeting. I can assure you that Montgomery County will continue to provide support for the TAC activities which are most closely linked to our responsibilities and obligations to protect the Reservoirs watershed and its resources.

Thank you once again for your commitment to protecting the Patuxent Reservoirs and their watersheds.

Sincerely,

Robert G. Hoyt  
Director

Office of the Director

---

255 Rockville Pike, Suite 120 • Rockville, Maryland 20850 • 240-777-7770 • 240-777-7765 FAX  
www.montgomerycountymd.gov


**MARYLAND DEPARTMENT OF THE ENVIRONMENT**

 1800 Washington Boulevard • Baltimore MD 21230  
 410-537-3000 • 1-800-633-6101

 RECEIVED  
 BALTIMORE

 Martin O'Malley  
 Governor

OCT 29 PM 1:32

 Shari T. Wilson  
 Secretary

 Anthony G. Brown  
 Lieutenant Governor

 Robert M. Summers, Ph.D.  
 Deputy Secretary

October 16, 2008

 Senator Barbara A. Mikulski  
 1629 Thames Street, Suite 400  
 Baltimore, MD21231

Dear Senator Mikulski:

Thank you for your letter regarding the grant application from the Howard Soil Conservation District for funding consideration under the Chesapeake and Atlantic Coastal Bays 2010 Trust Fund. The Department appreciates your interest in this matter.

The Departments of Environment (MDE) and Natural Resources (DNR) both conducted solicitations for projects to be considered for Chesapeake and Atlantic Coastal Bays 2010 Trust Fund awards – the Department of the Environment for specific urban /suburban nonpoint source pollution control projects and the Department of Natural Resources for implementation of existing local watershed plans that address non-point source pollution. My staff have confirmed that the application specific to your inquiry was submitted to DNR, rather than to MDE. Proposals are being reviewed by State agency staff and an independent Scientific Advisory Panel (SAP), with final funding decisions made by the BayStat program. MDE will provide a copy of your letter to DNR, the SAP, and BayStat. Decisions on the projects are targeted for late October 2008.

Thank you again for your letter. If I may be of further assistance, please contact me or Jay G. Sakai, Director of Water Management Administration at 410-537-3567 or toll-free 800-633-6101, or by e-mail at [jsakai@mde.state.md.us](mailto:jsakai@mde.state.md.us).

Sincerely

 Shari T. Wilson  
 Secretary

 cc: Susan Battle-McDonald, Director, MDE Stat  
 Dave Nemazie, 2010 Trust Fund Scientific Advisory Panel  
 Jenn Raulin, Department of Natural Resources  
 Jay G. Sakai, Director, Water Management Administration

STW/ed

Grants Summary October 2008

Industry Overview: The community of grantors for source water protection and watershed restoration is relatively small. Because the Chesapeake Bay is the cornerstone of environmental protection in this region, most of the funding sources in some way are related to the Bay. There are 3 primary funders for local governments: The Chesapeake Bay Trust, the National Fish and Wildlife Foundation, and the U.S. EPA which passes its funding source through to the State of Maryland. Recently a new source was added – the Chesapeake Bay 2010 funds which are derived from Maryland taxes.

The best approach for winning grant funding is to have a well developed project that is generally known within the local environmental community that the project manager has presented at various conferences and through media releases. Usually the project lead will have taken many steps to begin implementation on its own. An example can be found in the Howard County efforts to implement watershed protection measures. County funds have been contributed to the implementation. DNR 2010 funds are being sought to expand the efforts three-fold. Early indications are that the state will grant funds for that expansion.

In the instance of the TAC efforts to seek grant funds, projects have been developed to meet the criterion of the grant request. Consequently, grantors are not under the impression that the project is ready for implementation – lowering its scoring in evaluation. Over the past 3 years grantor awareness of the TAC and the watershed has increased significantly. The reality of needing to have projects in implementation has led both MNCPPC and The Soil Conservation Districts to begin implementation. As a result, although our success has been limited to several small dollar awards, the real success is that the carrot of possible significant funding has enticed the TAC members into implementing source water protection measures regardless of award of funds.

| Date          | Project Description                                                                                          | Amount Sought | Anticipated Recipient | Dissolution                                                    | Approximate Level Of Effort |  |
|---------------|--------------------------------------------------------------------------------------------------------------|---------------|-----------------------|----------------------------------------------------------------|-----------------------------|--|
| <b>Oct-06</b> | installing weather stations in the reservoirs to monitor the hydrometeorological conditions in the watershed | \$ 53,000.00  | WSSC environmental    | WSSC withdrew application before final submittal               | 60 hours                    |  |
| <b>Nov-06</b> | Developing and promoting reservoir-friendly landscaping certifications (similar to bay scapes)               | \$ 33,520.00  | WSSC Outreach         | Grant program was cancelled due to federal budget constraints. | 50 hours                    |  |

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |            |                                                                                                                                |          |  |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------|--------------------------------------------------------------------------------------------------------------------------------|----------|--|
| <b>Mar-07</b> | To plant approximately 3000 feet of a 1st and 2nd order stream reach of Reddy Branch,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | \$ 194,650.00 | MNCPPC     | Denied by grantor because they preferred to see work begin upstream                                                            | 80 hours |  |
| <b>Apr-07</b> | To address storm water management issues in the Reddy Branch subwatershed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | \$200,000     | MNCPPC     | Not submitted -- unable to meet selection criterion because no Watershed Restoration Action Strategy exists for the watershed. | 10 hours |  |
| <b>Apr-07</b> | To produce: An open-meadow habitat by eliminating invasive non-native shrub and herbaceous species within a 1.13 acre field to encourage growth of a diverse mix of existing native grasses and shrubs to provide habitat for birds, small mammals, and other native fauna; Conversion of existing drainage swales in cropland at the headwaters of this tributary into a 1000 foot long and 10 foot wide rain garden; Creation of a 125-foot wide, forested riparian buffer along a large section of the main stem Reddy Branch, on the south side of Brookville Road | \$ 198,800.00 | MNCPPC     | Denied due to grantor's impression that Montgomery County had adequate funds to do the project itself.                         | 40 hours |  |
| <b>May-07</b> | Approach property owners with Agricultural and Environmental Preservation easements, and offer incentives and assistance to establish forested riparian buffers throughout the Cattail Creek watershed                                                                                                                                                                                                                                                                                                                                                                 | \$ 850.00     | Howard DPZ | Grant never submitted because project evolved into the manure management initiative.                                           | 80 hours |  |
| <b>Sep-08</b> | To plant approximately 2 acres of stream bank with riparian buffer (Reddy Branch)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | \$ 4,962.00   | MNCPPC     | Denied                                                                                                                         | 10 hours |  |



|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |               |                                                                                                      |           |  |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------|------------------------------------------------------------------------------------------------------|-----------|--|
| <b>Oct-07</b> | A survey will be mailed to owners of parcels over 2, but less than 100 acres in size in phased segments of the watershed querying whether they have horses on the land. Once identified, those landowners will be invited to a series of hands-on educational events (such as 2-hour field walks in evenings and on weekends) throughout the fall and then offered assistance to prepare applications for assistance to implement water quality improvement actions | \$4,770.00        | Howard SCD    | Grant awarded                                                                                        | 20 hours  |  |
| <b>Oct-07</b> | Remove Invasive plants from reservoirs forest to improve species diversity with teams of volunteers and watershed staff                                                                                                                                                                                                                                                                                                                                             | \$ 22,500.00      | WSSC Outreach | Denied                                                                                               | 24 hours  |  |
| <b>Dec-07</b> | To plant approximately 1300 linear feet of stream bank with riparian buffer (Reddy Branch)                                                                                                                                                                                                                                                                                                                                                                          | \$ 33,654.00      | MNCPPC        | Denied                                                                                               | 40 hours  |  |
| <b>Feb-08</b> | Riparian buffer installation upstream of March planting location (Reddy Branch)                                                                                                                                                                                                                                                                                                                                                                                     | \$ 172,600.00     | MNCPPC        | Denied                                                                                               | 30 hours  |  |
| <b>Feb-08</b> | Dam removal and riparian buffer installation Reddy Branch                                                                                                                                                                                                                                                                                                                                                                                                           | \$ 198,250.00     | Our House     | Denied                                                                                               | 50 hours  |  |
| <b>Feb-08</b> | manure management for small horse farms to include agricultural management assistance                                                                                                                                                                                                                                                                                                                                                                               | \$ 116,968.00     | Howard SCD    | Denied -- grantor only awarded to small local governments and non-profit organizations in this round | 20 hours  |  |
| <b>Mar-08</b> | Dam removal and riparian buffer installation Reddy Branch                                                                                                                                                                                                                                                                                                                                                                                                           | \$100,000         | Our House     | Denied                                                                                               | 10 hours  |  |
| <b>Aug-08</b> | manure management for small horse farms to include agricultural management assistance and manure removal and composting                                                                                                                                                                                                                                                                                                                                             | \$ 3,600,000.00   | Howard SCD    | Waiting for response                                                                                 | 100 hours |  |
| <b>Oct-08</b> | manure management for small horse farms to include agricultural management assistance and manure removal and composting                                                                                                                                                                                                                                                                                                                                             | under development | Howard SCD    | under development                                                                                    | 20 hours  |  |

|               |                                                                                                                               |              |               |                   |         |  |
|---------------|-------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|-------------------|---------|--|
| <b>Nov-08</b> | Data analysis to establish baseline conditions so measurement of improvements derived from BMP implementation can be measures | \$ 4,500.00  | Howard SCD    | under development | 2 hours |  |
| <b>Dec-08</b> | Funds to establish demonstration garden on "WSSC property                                                                     | \$ 15,000.00 | WSSC Outreach | under development | 3 hours |  |
|               |                                                                                                                               |              |               |                   |         |  |



**Howard Soil Conservation District**  
708 Lisbon Center Drive, Ste. E - Woodbine, MD 21797 - Phone (410) 489-7987, FAX (410) 489-9120  
www.howardscd.org

FAX COVER SHEET

To: Carrie Caputo

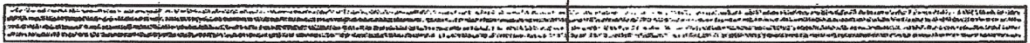
From: Bob Euser, HSCD

Fax #: 410-990-0152

Date: 11/24/08

Re: CB 2010 Trust Fund Grant

Pages: 2 including Cover



Comments:

Carrie -

For your files - No commitment of funds yet, and  
no "Dear John" letter yet. Guess we are  
still in the running.

Bob





October 23, 2008

MARTIN O'MALLEY  
GOVERNOR

Mr. Tobias Kagan  
Washington Suburban Sanitary Commission  
Environmental Group  
14501 Sweitzer Lane  
Laurel, MD 20707

STATE HOUSE  
100 STATE CIRCLE  
ANNAPOLIS, MARYLAND 21401-1925  
410-974-3901  
TOLL FREE: 1-800-811-8336  
TTY USERS CALL VIA MD RELAY

Dear Mr. Kagan,

I am writing to personally thank you for your continuing participation in Maryland's Tributary Teams, and to tell you about an enhancement designed to refocus your role in our Bay restoration efforts.

The enhancement, which was overwhelmingly endorsed at last month's Bay Cabinet meeting, represents many months of work by the team members and our staff at the Maryland Department of Natural Resources (DNR). Our new vision is for the teams to function as regional Bay restoration forums, focusing your activities on implementation, while retaining your long standing strengths of education, outreach and policy initiation.

The enhancement clarifies membership and leadership, expands the stakeholder groups from which teams will draw membership and cements annual reporting expectations. It also calls for a stronger commitment and more clearly defined partnership with our Bay cabinet agencies as well as the counties and municipalities in each of your watershed basins.

Over the next few months, our team coordinators will be forming work groups to: establish operational guidelines for adoption by each team; define reporting schedules on bay restoration progress and issues; draft agreements be adopted by local government partners; and specify the nature and structure of state agency support. Many of your colleagues have already volunteered to participate, and I ask that you contact your team coordinator to express your interest in serving on one or more of these groups if you have not already done so.

Finally, I have committed staff and resources to develop local basin plans that will serve as the foundation for team annual work plans, and will help focus your efforts where you can make the most difference.

Working together as One Maryland, we have created the Chesapeake Bay 2010 Trust Fund, established the BayStat management and tracking system, and strengthened the Critical Areas law for the first time in 25 years. With your continuing support, Maryland's Tributary Teams will now play an even more critical role in our efforts to restore our treasured Chesapeake Bay.

On behalf of all of the members of the Bay Cabinet and our staff at DNR, thank you again for the time, energy and talent that you bring to this important work.

Sincerely,

A handwritten signature in black ink, appearing to read "Martin O'Malley".

Governor

cc: John R. Griffin, Secretary, Maryland Department of Natural Resources



for HSCD (BOARD MTS.)



# Howard County Council

## COUNCILMEMBERS

George Howard Building  
3430 Court House Drive  
Ellicott City, Maryland 21043-4392

Courtney Watson, Chairperson  
District 1  
Mary Kay Sigaty, Vice Chairperson  
District 4  
Calvin Ball  
District 2  
Greg Fox  
District 5  
Jennifer Terrasa  
District 3

Robert R. Ensor  
District Manager  
Howard Soil Conservation District  
708 Lisbon Center Drive, Suite E  
Woodbine, MD 21797

October 24, 2008

Dear Bob,

Thank you for recently sending me the copy of the grant application to the Chesapeake and Atlantic Bays 2010 Trust Fund.

I also want to compliment you on the nice job you did at the Patuxent River Commission meeting.

The grant proposal sounds like a great idea! I hope the project is picked.

Sincerely,

  
Mary Kay Sigaty



BARBARA A. MIKULSKI  
MARYLAND

COMMITTEES:  
APPROPRIATIONS

HEALTH, EDUCATION, LABOR,  
AND PENSIONS

### United States Senate

WASHINGTON, DC 20510-2003

October 28, 2008

Mr. Robert Ensor  
District Manager  
Howard Soil Conservation District  
708 Lisbon Center Drive, Suite E  
Woodbine, Maryland 21797-8600

RECEIVED  
OCT 30 2008

- IN REPLY PLEASE REFER TO OFFICE INDICATED:
- 1629 THAMES STREET, SUITE 400  
BALTIMORE, MD 21231  
(410) 962-4510  
VOICE/TDD: (410) 962-4512
  - 80 WEST STREET, SUITE 202  
ANNAPOLIS, MD 21401-2448  
(410) 283-1805  
BALTIMORE: (410) 289-1850
  - 6404 IVY LANE, SUITE 408  
GREENBELT, MD 20770-1407  
(301) 345-5517
  - 94 WEST WASHINGTON STREET  
HAGERSTOWN, MD 27140-4804  
(301) 797-2826
  - SUITE 1E, BUILDING B  
1201 PEMBERTON DRIVE  
SALISBURY, MD 21801-2403  
(410) 548-7711

Dear Mr. Ensor:

I have received an interim response from the Maryland Department of the Environment (MDE) regarding my inquiry on your behalf. Enclosed is a copy of this information.

I will be back in touch with you as soon as I receive notice of these awards. If you have any further questions after looking over the letter, please contact Mr. Bart Kennedy, in my Baltimore office, at the above address. I appreciate the opportunity to be of assistance.

Sincerely,

Barbara A. Mikulski  
United States Senator

BAM:wbk  
Enclosure(s)



**Howard Soil Conservation District**  
708 Lisbon Center Drive, Ste. E - Woodbine, MD 21797 - Phone (410) 489-7987, FAX (410) 489-9120  
www.howardscd.org

**FAX COVER SHEET**

To: *Carrie Capuco*  
*David Plummer*

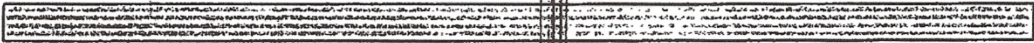
Fax #: *410-990-0152*  
*301-590-2849*

Re: *2010 Chesapeake Bay Trust Fund*

From: *Bob ENSOR*

Date: *10/31/08*

Pages: *3 including cover*



**Comments:**

*I thought you would want to see the letters from  
Senator BARBARA Mikulski & Shari Wilson, Secretary MDE.  
This has to help our case!*

*Bob*



National Fish and Wildlife Foundation – Chesapeake Bay Stewardship Fund 2008, Pre-proposal  
 Title: Immediate Nutrient Reduction at Unregulated Horse Stables  
 Organization: Howard Soil Conservation District

## Grant Request Information

|                                  |                                                                                                                                                                                                      |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title of Project                 | Immediate Nutrient Reduction at Unregulated Horse Stables                                                                                                                                            |
| Two Sentence Project Summary     | Howard and Montgomery Soil Conservation Districts (SCDs) will immediately and replicably reduce nutrients by removing and composting manure at unregulated equine operations.                        |
| Long Term Outcome(s) of Project  | Howard SCD will remove 5.8 tons of nitrogen and 2,250 pounds of phosphorus per year. Montgomery SCD will remove 7,122 pounds of nitrogen and 1,305 pounds phosphorus per year from receiving waters. |
| Project Location Description     | Portions of the Patuxent Reservoirs Watershed in Howard and Montgomery Counties where 310 unregulated equine facilities have requested assistance but do not qualify for other assistance programs.  |
| Total Amount Requested           | \$700,000.00                                                                                                                                                                                         |
| Total Match Amount Proposed      | \$715,750.00                                                                                                                                                                                         |
| Proposed Grant Period            | 10/30/2008 - 09/30/2010                                                                                                                                                                              |
| Organization                     | Howard Soil Conservation District                                                                                                                                                                    |
| Organization Type                | State or Local Government                                                                                                                                                                            |
| Primary Contact                  | Robert Ensor,                                                                                                                                                                                        |
| Position/Title                   | District Manager                                                                                                                                                                                     |
| Street Address Line 1            | 708 Lisbon Center Drive                                                                                                                                                                              |
| Street Address Line 2            | Suite E                                                                                                                                                                                              |
| City, State, Country Postal Code | Woodbine , Maryland , North America - United States<br>21797                                                                                                                                         |
| Phone and E-mail                 | 410-189-7987 ; bensor@howardcountymd.gov                                                                                                                                                             |

## Matching Contributions

|                     |                                                                                                                                                                              |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Amount:</b>      | \$405,750.00                                                                                                                                                                 |
| <b>Type:</b>        | In-kind                                                                                                                                                                      |
| <b>Status:</b>      | Pledged                                                                                                                                                                      |
| <b>Source:</b>      | Howard Soil Conservation District                                                                                                                                            |
| <b>Source Type:</b> | Non-Federal                                                                                                                                                                  |
| <b>Description:</b> | Salary and support contribution from HSCD of \$355,750 and Washington Suburban Sanitary Commission and Maryland Department of Agriculture cost share assistance of \$50,000. |

|                |              |
|----------------|--------------|
| <b>Amount:</b> | \$310,000.00 |
| <b>Type:</b>   | In-kind      |



National Fish and Wildlife Foundation – Chesapeake Bay Stewardship Fund 2008, Pre-proposal  
Title: Immediate Nutrient Reduction at Unregulated Horse Stables  
Organization: Howard Soil Conservation District

**Status:** Pledged  
**Source:** Montgomery Soil Conservation District  
**Source Type:** Non-Federal  
**Description:** Staff expenses and cost-share dollars that will be dedicated to this initiative.

Total Amount of Matching Contributions                      \$715,750.00



## Chesapeake Bay Stewardship Fund Innovative Nutrient and Sediment Reduction Project Pre-proposal Project Narrative

**I. Project Abstract:** Howard Soil Conservation District and the Montgomery Soil Conservation District are taking the lead in **this initiative to demonstrate reduction of nutrients by significantly reducing nitrogen and phosphorus in the Patuxent Reservoirs Watershed receiving waters by facilitating implementation of better manure management practices on lands with 7 or less horses.** These operations fall outside of current USDA and State cost-share incentive programs that are available to farmers for the installation of Best Management Practices (BMPs). A multi-government protection group, established in 1996, coordinates efforts to **protect, enhance, and soon, implement total maximum daily loads (TMDLs) in this watershed.** Implementation of this initiative is assured.

**The specific problem to be remediated is nitrogen and phosphorous in the receiving water.** The amount of manure production of the 1025 horses identified within the watershed is equivalent to the production of human waste from a city the size of Salisbury or Cumberland, approximately 18,825 people. The total production of manure from these horses is 18,706,250 pounds per year in the watershed.

Moreover, this N and P can be removed from the watershed very economically at the cost of approximately \$6.00 per pound. The general approach to be used is a multi-level behavioral change program over a period of 3 years. The elements of the initiative are as follows:

- Incentives for installation of best management practices (BMPS). Landowners will be offered flat rate cost reimbursement. Design services will be provided in-kind by SCD and MDA staff. Design approval will be expedited by the use of a qualified contract Professional Engineer as needed.
- Without damaging the existing industry, a pilot privatization effort whereby the SCDs will identify a qualified minority or woman-owned operation that can be offered incentives and assistance to design and operate a commercial manure conversion to compost facility with the intent of working toward nutrient trading in the future. SCDs will enable removal and composting of manure on all participating properties.
- Equipment sharing for smaller manure spreaders that can be rotated among the smaller farms at low to no cost for landowners.
- Multi-media social marketing focusing on the importance of proper manure management to the watershed that is targeted to the horse owners and land owners.

One of the most significant aspects of this initiative is how easily **this methodology can be replicated** and applied to other watersheds in the State throughout the Bay region.

## II. Proposal Narrative

**A. Project Priority:** **The Patuxent Reservoirs Watershed** lies in the northern Piedmont region of Maryland along the main stem of the Patuxent River. The watershed extends 132 sq. miles encompassing parts of three counties, Montgomery, Howard, and Prince George's. It is a significant portion of the Patuxent River, the longest river in the State of Maryland. **The project area includes all of the first order streams that flow into the Upper Patuxent River and the two Reservoirs – Triadelphia and Rocky Gorge.** The Patuxent Reservoirs supply water to hundreds of thousands of

people. It is a suburban-agricultural area containing many farmettes. It was identified in 2002 as having the highest concentration of horses in the state (2002 Maryland Equine Census). In this watershed traditional agricultural operations are transferring to equine operations.

A multi-government protection group, established in 1996, coordinates efforts to protect, enhance, and soon, implement total maximum daily loads (TMDLs) in this watershed. The need for this initiative was identified as a result of surveys that were funded by the Chesapeake Bay Trust in 2007. The surveys identified hundreds of landowners in the watershed that were interested in learning better manure management and other conservation practices. Working with this targeted group of land owners is extremely important because these property owners may not be part of the traditional farming community and may be unaware of steps they can take to protect the watershed using the available agricultural assistance programs. Federal, State, and County funding assistance programs exist<sup>1</sup>, but these landowners often have low participation in existing programs. The cost of best management practices and manure management can be an impediment to proper management. This initiative is designed to make the cost of manure management more attainable and accepted – economically and socially.

**B. Objectives:** The specific problem to be remediated is nitrogen and phosphorous in the receiving water. In the Howard County portions of the watershed, the estimate is that implementation of BMPs can remove 11,573 pounds of nitrogen per year (5.8 tons/yr)<sup>1</sup>; and achieve phosphorus removal from the receiving water of 2,250 pounds per year (1.13 tons/yr). Based on a 15 year lifespan for an Animal Waste Storage Facility, over the life of the conservation practices, the total pollutant removal is estimated to be: 173,595 pounds (86.8 Tons)

| Howard County                                                                                                                                                | Montgomery County                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Total pollutant removal is estimated to be: 173,595 pounds (86.8 Tons) of N, and 33,750 pounds (16.9 Tons) of P over the life of the conservation practices. | Total pollutant removal is estimated to be: 106,831 pounds of N, and 19,578 pounds of P over the life of the conservation practices. |

of N, and 33,750 pounds (16.9 Tons) of P. In the Montgomery County portions of the watershed, the estimates are that implementation of BMPs can remove 7,122 pounds of nitrogen per year; and achieve phosphorus removal from the receiving water of 1,305 pounds per year. Based on a 15 year lifespan for an Animal Waste Storage Facility, over the life of the conservation practices, the total pollutant removal is estimated to be: 106,831 pounds of N, and 19,578 pounds of P. The amount of manure production of the 1025 horses within the Triadelphia watershed is equivalent to the production of human waste from a city the size of Salisbury or Cumberland, approximately 18,825 people. This is based on horses producing an average of 50 pounds of manure per day and humans producing an average of 2.45 pounds per day (both scientifically accepted numbers). The total production of manure from horses is 18,706,250 pounds per year in the watershed.

Water quality and habitat **improvements will be sustained** as markets for composting evolve, BMPs become routine and are maintained, and stewardship behaviors develop as a result of social marketing initiatives. The grant applicants anticipate **a healthy market will evolve for the composted manure** in a way that is similar to the market evolution of local farmers markets and organic produce. Sustainability will follow a natural cycle. Initial manure removal will help landowners immediately see the benefits of proper manure management. BMP implementation and maintenance over the next 2 years will likely enhance habitat at stream crossing areas, and over-grazed areas. Given that the average BMP lifespan is 15 years, adequate time will be available for the compost market to evolve and stewardship behaviors consistent with the BMPs develop. Measurable changes in water quality can be monitored in a parallel fashion. Existing water quality data can be harvested from county 5-year monitoring cycles. Following BMP implementation, additional samples can be taken – even off the 5-year cycle – and compared for measure of nutrient reduction.

<sup>1</sup> MACS, CREP, WHIP, Patuxent Reservoir Protection BMP Cost Share, Stream ReLeaf, MDA Conservation Innovation Grants

Social consciousness of proper manure management will be raised throughout the horse community in the watershed as a result of the proposed social marketing component of this initiative. In fact, the **CBT has recently provided \$1,350 in funding for a newsletter targeting proper manure management on the 728 survey respondent's property.** Targeted messages will be delivered to stakeholders using a variety of messaging tools. Partners such as the Maryland Horse Council, Maryland Association of Soil Conservation Districts, Maryland Farm Bureau, East Oregon Multnomah Soil Conservation District, Equiery Magazine, local tack and feed shops, and pony clubs **are already being enlisted to assist in message delivery** through distribution of flyers and newsletters. Direct mail and electronic mail campaigns will be used to encourage program participation and voluntary adoption of stewardship behaviors. Homeowner guides will be developed similar to *From My Backyard to Our Bay* and distributed to introduce landowners to an array of other environmental issues and stewardship practices that may be applicable to their properties

Moreover, this N and P can be removed from the watershed very economically at the cost of approximately \$6.00 per pound. **Also**, one of the most significant aspects of this initiative is how easily **this methodology can be replicated** and applied to other watersheds in the State throughout the Bay region.

**C. Overall Context:** Since signing the watershed agreement in 1996, three counties and multiple state agencies have been working together to leverage limited funds to the highest degree possible for source water protection and Bay restoration in the Patuxent Reservoirs Watershed. Currently, quarterly meetings are held where the county agencies representatives to the TAC discuss progress on individual projects and group initiatives. Progress on these initiatives is tracked in an annual work plan. Reports are provided to senior officials at an annual meeting of the Policy Board and in quarterly written updates. This process enables all TAC agencies to collectively benefit from lessons learned, share information, and openly discuss multi-jurisdictional issues. Examples of collaborative projects are listed in the attached work plan. Combined, TAC agencies have expended millions of dollars in planning, analysis, and implementation activities in the watershed. Since 2006, partnership coordination alone has been contracted out by WSSC for \$100,000 per year. **This initiative is a key element of the implementation of the watershed management plans.**

**Local government, community activists, charitable organizations, schools, businesses, and hobbyists are all engaged** with these partnership activities. Through the TAC, three counties have representatives from three of their agencies actively involved in the partnership. Outreach activities are held throughout the year. Participants include watershed businesses, schools, and educational organizations, including Montgomery College and Howard Community College.

**For this manure management initiative alone, 728 property owners (37% of those surveyed) responded to the April 2008 survey, and 159 horse hobbyists expressed interest in watershed protection.** In other watershed endeavors, non-profit organizations such as the Patuxent Riverkeeper, Isaac Walton League Wildlife Achievement Chapter, Audubon, and Master Gardeners have all supplied volunteers. These networks and partnerships are publically documented through annual publication of the TAC reports on the WSSC web site and their periodic discussion in meetings of the Environmental Advisory Committee to the WSSC. This proposed manure management assistance addresses a nutrient load large enough to cause a change in the volume of pollutants discharged to the targeted water body, yet it focuses on an area small enough to measure impact. Once fully implemented, **up to 18 million pounds of manure can be eliminated in the watershed.** Furthermore, it should be noted that this 18 million pounds is based on the number of horses documented in the survey responses. With a 37% response rate, it is reasonable to anticipate that actual manure removal could be double that amount. Measurable changes in nutrient levels should be detected quickly.

**The prime sponsors of this initiative are committed** to providing the maximum benefits with minimal paperwork for the landowners, yet maintaining accountability for the investment of funds. Innovative BMPs have been utilized occasionally in the past where landowners have demonstrated a willingness and aptitude for non-traditional management of the resources. An example would be the construction of a manure holding facility for horse manure constructed of straw bales. While shorter lived, the facility gives owners the transition time and management practice needed to solidify investment in a more durable facility. **The Soil Conservation Districts have expertise** in matching accomplished horse facility managers with new owners through informal discussions and formal Pasture Walks held throughout the year at horse operations throughout the watershed.

This mentoring and showcasing has provided an informal network of horse operations with similar goals, but needs to be expanded to accomplish the natural resource goals of the initiative.

**D. Methodology and Workplan:** The general approach to be used is a multi-level behavioral change program over a period of 3 years. The need for this initiative was identified as a result of surveys that were funded by the Chesapeake Bay Trust in 2007. The surveys identified hundreds of landowners in the watershed that were interested in learning better manure management and other conservation practices. Working with this targeted group of land owners is extremely important. This initiative is designed to make the cost of manure management more attainable and accepted – economically and socially. The elements of the initiative are as follows:

- **Incentives for installation of best management practices (BMPS)** with an emphasis on barn rain gutter installation, to keep concentrated clean water away from the manure; 4, 8, or 12 animal waste storage facility construction; and composting capabilities. Landowners will be offered flat rate cost reimbursement equal to approximately 87.5% of the cost for installation of the BMP. Design services will be provided in-kind by SCD and MDA staff. Design approval will be expedited by the use of a qualified contract Professional Engineer as needed.
- Without damaging the existing industry, a **pilot privatization** effort whereby the SCDs will identify a qualified minority or woman-owned operation that can be offered incentives and assistance **to design and operate a commercial manure conversion to compost facility** with the intent of working toward nutrient trading in the future. SCDs will enable removal and composting of manure on all participating properties. (Potential sites are already being scoped. Among those under consideration are WSSC's former Site 2 in Calverton and two private mulch/topsoil manure processors adjacent to Howard County in Baltimore and Carroll Counties).
- **Equipment sharing** for smaller manure spreaders that can be rotated among the smaller farms at low to no cost for landowners.
- Multi-media **social marketing** focusing on the importance of proper manure management to the watershed that is targeted to the horse owners and land owners.

Implementation activities will be evaluated and reported to the protection group in its quarterly meetings. Minutes to those meetings are a matter of public record and are posted to the internet annually in the Technical Supplement to the Annual Report of the Technical Advisory Committee of the Patuxent Reservoirs Watershed Protection Agreement Policy Board.

Results of the initiative will be evaluated in a number of ways. Baseline water quality data can be gathered from the county and state ongoing stream monitoring efforts. Although water quality data is available from WSSC both on the reservoirs and at the drinking water intake point, and new data is gathered by WSSC monthly, the SCDs will utilize on-site surrogate evaluations and compile the results within the watershed. These evaluations are an accepted practice. They are already used throughout the Chesapeake Bay Watershed. They are based on both Chesapeake Bay Program and NRCS data.

- Tons of manure hauled for composting and turned into compost will be tracked and reported by the Howard and Montgomery Soil Conservation Districts. Costs will be carefully documented to monitor costs per pound of manure composted and the costs and efficiency associated with designing and installing on-farm practices for managing the manure in the future.
- BMPs designed, implemented and maintained will be tracked by the SCD offices responsible for their implementation.
- Stakeholders educated will be measured by numbers of flyers distributed, newsletters mailed, and surveys returned. In addition, attendees at workshops and public meetings where the program is

featured will be documented as direct contacts. All of this information will be shared in the quarterly partnership meetings, and compiled in the annual report.

This nutrient reduction initiative is **very cost effective**. Agricultural BMPs are document to be among the most cost effective measures for nutrient reduction, and this initiative is consistent with the trend. Estimates have put the cost per pound of nitrogen removal just under \$6.00 per pound, and phosphorus at \$32 per pound. The low cost makes it a remarkably efficient way to impact nutrient levels throughout the watershed.

**E. Dissemination and Transferability of Results:** Currently, quarterly meetings are held where the county agency representatives to the TAC discuss progress on individual projects and group initiatives. Progress on these initiatives is tracked and reported in an annual work plan. Reports are provided to senior officials at an annual meeting of the Policy Board and in quarterly written updates. All documentation is posted to the internet. This process enables all TAC agencies to collectively benefit from lessons learned, share information, and openly discuss multi-jurisdictional issues.

**F. Partner Justification: A multi-government protection group, established in 1996, coordinates efforts to protect, enhance, and soon, implement total maximum daily loads (TMDLs) in this watershed.** In 1996, the Patuxent Reservoirs Watershed Protection Agreement was signed by Howard, Montgomery, and Prince George’s Counties, Howard and Montgomery Soil Conservation Districts, Maryland-National Capital Park and Planning Commission (M-NCPPC), and the Washington Suburban Sanitary Commission (WSSC) creating a Policy Board and Technical Advisory Committee (TAC) to work together to protect watershed resources. Through interagency cooperation, this unique cooperative partnership has developed a strategic goal to protect the Patuxent Reservoirs as “partners in implementation and acceleration of source water protection and bay restoration.”

Howard Soil Conservation District and the Montgomery Soil Conservation District are taking the lead in **this non-point source restoration initiative** The **the agencies with the capability and authority** manure management assistance. The SCDs are this work through existing assistance programs. properties that are ineligible for other assistance number of animals or size of the operation, the Montgomery SCDs will be able to provide small parcel horse farm owners in the watershed.

Through the reservoirs partnership TAC, **county and multiple state agencies is throughout implementation.** In addition to the protection agreement, an agricultural agreement between Montgomery and Howard counties for agreement has established a small pool of funds BMP installation on watershed properties where a apply. By pooling funds, the SCDs are already in the watershed. In addition, the existing leveraged through effective use of existing meetings, and the landowner survey responses. survey **contact has already been made with 728 of which responded indicating a engage.** That translates into a 35.5% response significantly higher than statistically expected.

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: center;">TECHNICAL ADVISORY<br/>COMMITTEE</p> <p>Martin Chandler Washington Suburban Sanitary Commission<br/>Kristal McCormick, Howard Soil Conservation District<br/>Gul Behsudi Maryland Department of the Environment<br/>Meosotis Curtis Montgomery County Department of Environmental Protection<br/>Jerry Maldonado Prince George’s County Department of Environmental Resources<br/>John McCoy Maryland Department of Natural Resources<br/>Paul Meyer Prince George’s County Health Department<br/>Katherine Nelson Maryland-National Capital Park and Planning Commission<br/>Bert Nixon Howard County Health Department<br/>Susan Overstreet Howard County Department of Planning and Zoning<br/>David Plummer Montgomery Soil Conservation District<br/>Royden Powell Maryland Department of Agriculture<br/>Howard Saltzman Howard County Department of Public Works<br/>Mark Symborski Maryland-National Capital Park and Planning Commission<br/>Stan Wong Montgomery County Department of Permitting Services</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**grant applicants are to implement** the the agencies that do By targeting those programs due to the Howard and targeted assistance to

**leverage of all 3 guaranteed** initial watershed has been in effect nearly 10 years. That for cost-share of variety of criteria leveraging resources partnerships can be outreach events, EAC As a result of the **2047 landowners, willingness to** rate which is



## Maryland Department of Agriculture

### Office of the Secretary

Martin O'Malley, Governor  
Anthony G. Brown, Lt. Governor  
Roger L. Richardson, Secretary  
Earl F. Mance, Deputy Secretary

Agriculture | Maryland's Leading Industry

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410.841.5700 Baltimore/Washington  
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800.492.5590 Toll Free

November 19, 2008

Mr. William E. Barnes  
Chairman  
Howard Soil Conservation District  
708 Lisbon Center Drive, Suite E  
Woodbine, MD 21797

Dear Mr. Barnes:

Thank you for your letter to Governor Martin O'Malley supporting the Local Implementation Grant proposal submitted as part of the Chesapeake Bay 2010 Trust Fund. The Governor received your letter and asked me, as Secretary of the Maryland Department of Agriculture (MDA), to respond on his behalf.

There has been a tremendous response to the Request for Proposals for Local Implementation Grants. The Department of Natural Resources received 31 proposals requesting more than \$27 million in funding for Fiscal Year 2009. We are finalizing the review of these projects and are developing a strategy in light of our existing budget climate. Applicants will be notified of the outcome in the coming weeks.

There has been a significant commitment to agricultural issues from the 2010 Trust Fund. In addition to the \$1 million focused on enhancing technical assistance in soil conservation districts, we have committed an additional \$9.5 million for cover crops plus an additional \$1.75 million toward projects to manage animal wastes. The soil conservation districts will play a key role in implementing these practices and your efforts are vital in achieving Chesapeake Bay restoration goals.

We appreciate your interest in helping to address water quality impacts to the Chesapeake Bay. Your approach to sound management of equine waste issues through composting is an innovative, direct approach to reducing non-point source loads related to agriculture. Through the partnership efforts with local SCDs, we are ever closer to a healthy Bay and a viable agriculture industry in Maryland.

Sincerely

Secretary

c: Howard and Montgomery Soil Conservation Districts Board Members  
Linda Aldredge, Governor O'Malley's Front Office  
Cindy Worsham, Maryland Department of Natural Resources