

2006

**Supplemental Documentation
In Support Of
The Patuxent Reservoirs
Technical Advisory Committee's Annual
Report**



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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; and
- public awareness and stewardship.

This 2006 Supplemental Documentation in Support of the Patuxent Reservoirs Technical Advisory Committee's Annual Report contains more detailed information on the riparian forest buffer program, consultant support, reservoir chemistry monitoring, reservoir modeling, sedimentation studies, forestry management, and recreational use surveys. In addition, the appendices contain the 1996 Patuxent Reservoirs Watershed Protection Agreement, the TAC and Policy Board meeting agendas and summaries for 2006, TAC correspondence for 2006, and the Agricultural Memorandum of Understanding with amendments.

Riparian Buffers

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 is a 10 acre riparian buffer planting in Reddy Branch Stream Valley Park in Montgomery County. Howard County continues to refine its assessment of properties where there may be planting opportunities.

Proposal for Planting Riparian Buffers Reddy Branch, Montgomery County

The Reddy Branch Stream Valley Park is publicly owned. 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 was recently abandoned and is in an old-field condition. 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 restoration project 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. Restoration will include establishing a 100 foot riparian stream buffer along 7,000 linear feet of non-buffered stream, construction of wetlands, a meadow demonstration area, and enhanced storm water management throughout the subwatershed.

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

1. Filtering agricultural nitrogen through multi-species riparian forested buffers.
2. Capture, retention, and filtering of agricultural runoff in a wetland area reducing total suspended solids (TSS), total nitrogen concentrations, and total phosphorous concentrations to receiving waters.
3. Reduction of highway runoff through the establishment of vegetative meadow filtering area.
4. Reduction of fertilizer runoff from multi-use sports complex by enhancing existing storm water management by implementing bio-retention areas and wetland restoration.

5. 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.
6. Reducing soil and stream bank erosion thus reducing sedimentation to Reddy Branch.



Reddy Branch

Proposal for Riparian Forest Buffer Planting Effort in Howard County

As reported in 2005, based on a 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 (WSSC), State and County parks and open space. The remaining properties are privately owned.

In 2006, Howard County refined the GIS analysis of riparian buffers using updated forest cover information and developed criteria for selecting properties for planting. Since there is limited acreage available for planting on publicly owned land, the focus of efforts will be on working with private landowners, with an emphasis placed on private properties with agricultural or environmental easements.

Consultant Support

At the Policy Board meeting in 2005, the TAC recommended that WSSC provide two full-time staff positions to ensure that the rate of completing implementation items would be accelerated to most benefit drinking water quality in the reservoirs. The Policy Board agreed that WSSC should consider a full-time contractual position that would focus on obtaining grant funding to support implementation projects and also provide more direct coordination among the agencies to achieve priority resources protection.

In August 2006, Versar, Inc. was awarded a one-year contract with WSSC to provide technical and administrative support and coordination services for the TAC. Under a subcontract, Capuco Consulting Services, Inc. has provided on-site staff since August 2006.

Services provided to the TAC include the following:

- Identify and pursue relevant environmental grant opportunities and coordinate with appropriate members of the TAC to obtain grant funding for project implementation.
- Provide all support and coordination necessary for smooth, timely and effective working of the TAC and its meetings.
- Bring together TAC workgroups and coordinate their efforts to address issues of importance to the TAC.
- Keep the TAC current on local reservoir watershed protection issues and studies.
- Report to WSSC's Environmental Group Leader or his designee.

Consultant Grant-related activities August 10, 2006 – December 28, 2006

- **Research Activities**
 - A matrix of possible funding sources was developed.
 - Ms. Capuco attended the Chesapeake Bay Trust's Watershed Restoration Fair to make contact with a variety of potential funders for TAC projects.
 - Ms. Capuco attended the Maryland Association of Floodplain and Storm water managers' annual conference to make direct contact with potential partners and potential funders.
 - Ms. Capuco met with Howard County staff on October 19, 2006 to help prioritize potential restoration sites.
 - On November 2, 2006 Ms. Capuco met with Chesapeake Bay Trust staff Melanie Teams, Kerri Bentkowski, and Jennifer Pruchniewski to discuss funding opportunities for the Reddy Branch.
 - On November 13, Ms. Capuco met with MNCPPC staff to further develop the strategy for funding Reddy Branch stream forest buffer plantings.
 - During the week of November 13 Ms. Capuco reviewed grant applications for the national Oceanic and Atmospheric Administration to strengthen understanding of what NOAA considers successful grant applications.

- November 17 – 19 Ms. Capuco attended the Chesapeake Watershed Forum in Shepherdstown, WV. At the Forum Ms. Capuco met with potential funders from a variety of private and government agencies.
 - On November 21, Ms. Capuco reviewed the availability of funding from the District of Columbia Department of Environment.
 - During the week of November 27, Ms. Capuco initiated contact with Belmont Elementary School regarding possible partnerships for project work at Reddy Branch.
- **Grant Application Preparation**
 - Ms. Capuco began preparing grant applications for Reddy Branch to be submitted to the Chesapeake Bay Trust and the National Fish and Wildlife Foundation.
 - An Advanced Flood Warning System grant proposal was prepared, coordinated with WSSC accounting department.
 - Draft fact sheets for 8 restoration projects on the Reddy Branch project were developed and shared with MNCPPC.
 - Ms. Capuco contacted the Corporate Wetlands Restoration Partnership to discuss the Reddy Branch project. At their urging, Ms. Capuco prepared a fact sheet that was reviewed and commented upon by Tobias Kagan and Katherine Nelson. It was then submitted to the government agencies representing the Partnership (USDA, US EPA, and USACE).
 - During November a grant application was prepared for the WSSC Outreach and Communications Office requesting financial assistance from the US EPA to develop and implement an outreach program expanding the Green Schools program to include land care and similar issues for certification.

Reservoir Chemistry Monitoring

The WSSC continues its water quality monitoring program to determine water quality trends in the reservoirs. In addition to chemical properties, in-situ transparency and profile measurements are taken at three locations in each reservoir.

Results of the 2006 monitoring cycle for Rocky Gorge Reservoir (due to maintenance at Triadelphia Dam, monitoring was not conducted during 2006) show the reservoir is in the eutrophic range.

As defined, trophic state is the total weight of living biological material (biomass) in a waterbody. The trophic state index (TSI) as developed by Carlson (1977) uses algae biomass to determine the trophic state classification of a waterbody. Using three variables, chlorophyll-a, secchi readings, and total phosphorous independently to determine the algal biomass.

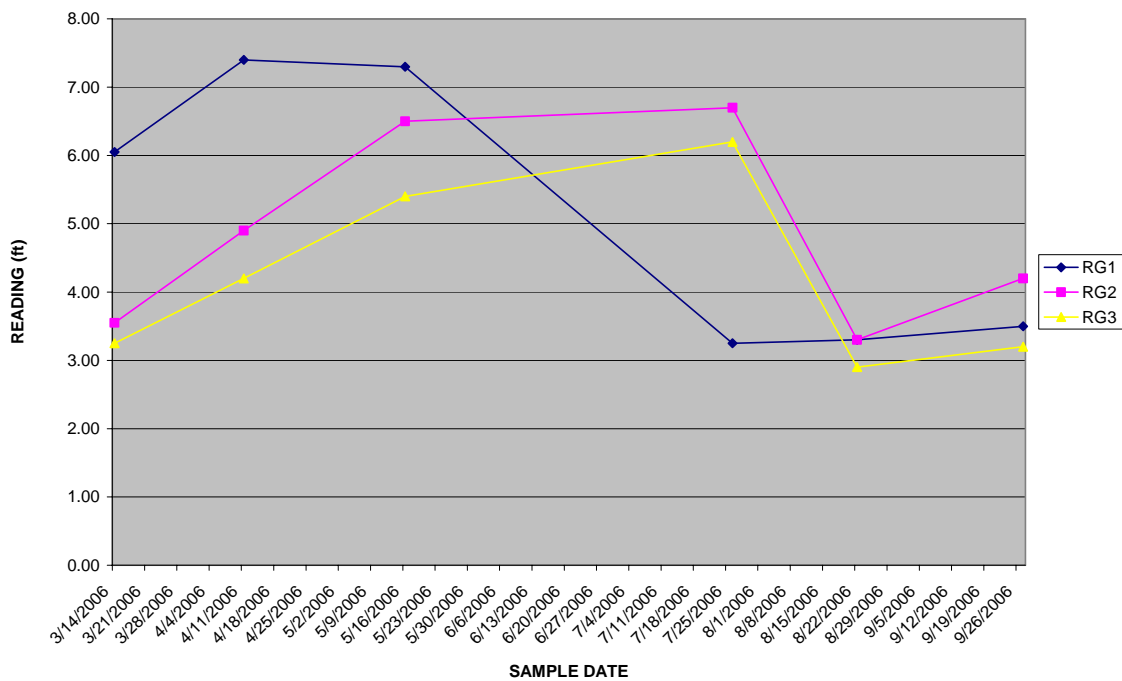
PARAMETER	RESULT	TSI
Chlorophyll-a	50.02	Eutrophic
Phosphorous	67.89	Eutrophic
Secchi	59.58	Eutrophic

In addition to the TSI, Maryland has established water quality criteria for reservoirs. These guidelines establish chlorophyll-a concentrations of 10 µg/l as the boundary between mesotrophic and eutrophic. The 2006 sampling period for March, May, and July, (due to equipment difficulties April and August profiles are unavailable) shows an average Chl-a concentration of 8.57 µg/l.

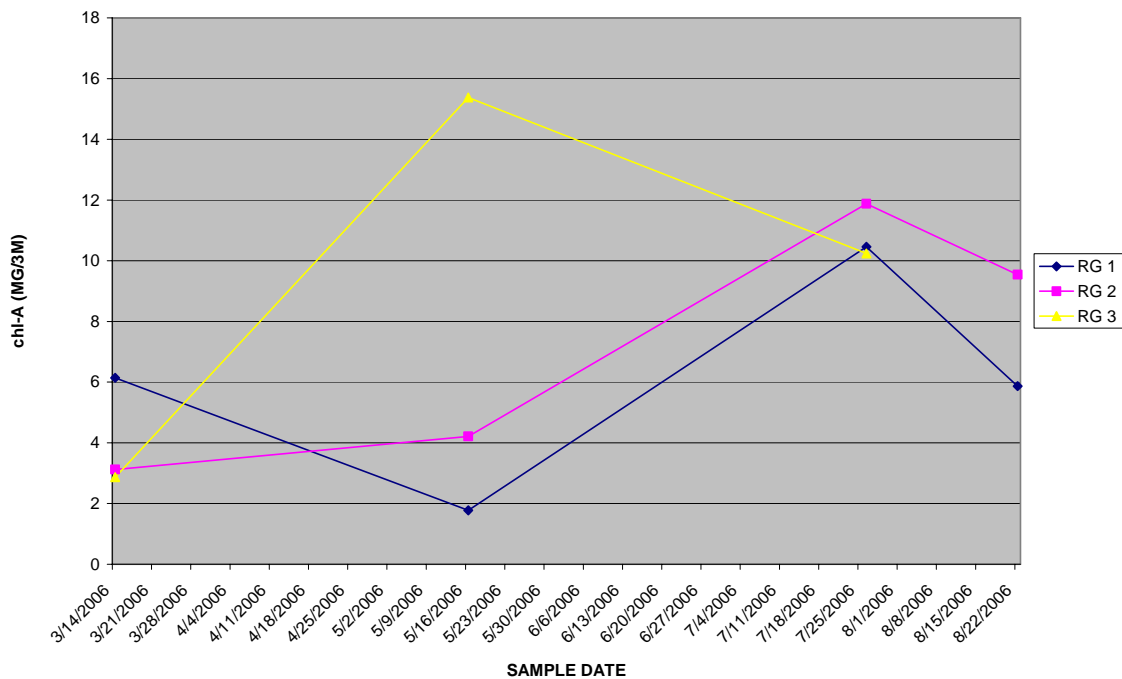
The Maryland Department of the Environment draft 2006 list of impaired waters (303d list) section B.3.4.12.1 Dissolved Oxygen Guidance for Thermally Stratified Lakes in Maryland established a dissolved oxygen concentration of 5 mg/l in surface layers at all times, including periods of thermal stratification. The 2006 sampling period shows a dissolved oxygen concentration average of 11.71 mg/l in the surface layer of the Rocky Gorge Reservoir.

The 303d draft list also lists Rocky Gorge Reservoir as being biologically impaired from an unknown source and Triadelphia Reservoir as impaired for dissolved oxygen from nutrients.

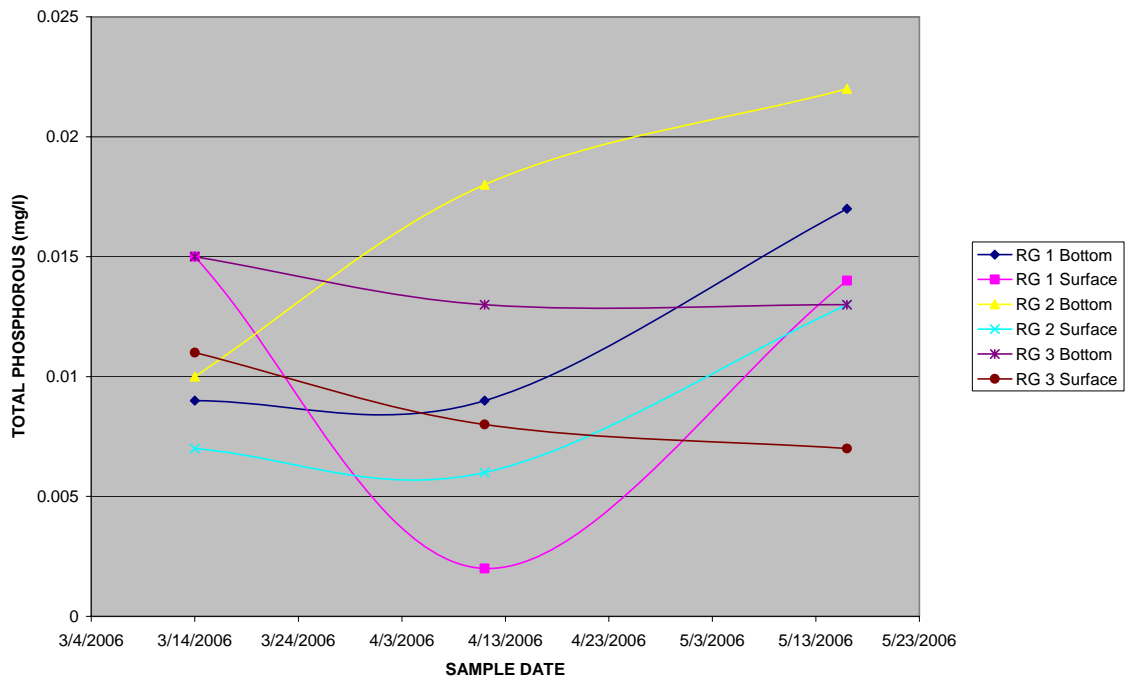
ROCKY GORGE 2006 SECCHI DISK READINGS



CHL-a ROCKY GORGE 2006



TOTAL PHOSPHOROUS ROCKY GORGE 2006



Reservoir and Watershed Models

The Maryland Department of the Environment (MDE) and the Interstate Commission on the Potomac River Basin (ICPRB) are refining and enhancing existing watershed and reservoir models. These enhanced models will be used to develop Total Maximum Daily Loads (TMDL) to address nutrient impairments in the Rocky Gorge Reservoir and nutrient and sediment impairments in the Triadelphia Reservoir. The TMDLs are scheduled to be submitted to the U.S. Environmental Protection Agency for review and approval in fall 2007. Implementation of the TMDLs will help support protection of the reservoirs and water supply.

Preliminary versions of the revised watershed model and reservoir models have been completed. The revised watershed model implements a refined representation of the fate and transport of nutrients in the watershed, so that the model is more compatible with the Chesapeake Bay Program Watershed Model and other HSPF models used to develop TMDLs in Maryland.

The model also incorporates extensive water quality monitoring data sponsored by WSSC during 1999-2001. Since the simulation of algae and chlorophyll *a* concentrations will have a central role in determining what nutrient loads are compatible with water quality standards, the models of the Triadelphia and Rocky Gorge Reservoirs have been calibrated for the period 1998 through 2003 when chlorophyll *a* observations are available. The models also have been revised to keep a mass balance of phosphorus, and to better represent sediment oxygen demand.

The models will be finalized by spring 2007. Nutrient TMDLs for both reservoirs, and a sediment TMDL for Triadelphia Reservoir, are concurrently being developed. They are expected to be available for public comment next summer, and subsequently to be submitted to the EPA by September, 2007. MDE will keep the Technical Advisory Committee updated on the progress of this effort.

Sediment Study

In response to a request by the Watershed Services Division of DNR, the Maryland Geological Survey (MGS) was contracted by the WSSC to study the bathymetry and sedimentation of Triadelphia and Rocky Gorge Reservoirs. Information from this study will update WSSC's previous surveys and will help in assessing changes in sedimentation rates.

This is a three-year study, from July 2004 to June 2007. Phase I of the study was completed in June 2006. Bathymetric data was collected for the reservoirs, the current water storage capacities and drawdown curves were determined, and sedimentation rates for the reservoirs were calculated.

Bathymetric data for the reservoirs was collected in 2004 for Triadelphia, and in 2005 for Rocky Gorge. This data was collected using differential global positioning service techniques and digital echo-sounding equipment. Over 400,000 discrete soundings were collected and used to generate a current bathymetric model of Triadelphia and Rocky Gorge Reservoirs. The bathymetric models indicate a current storage capacity of 6.66 billion gallons (25.2 million cubic meters) for Triadelphia Reservoir, with a surface area of 824 acres (3.33 million square meters) and 5.54 billion gallons (21.0 million cubic meters) for Rocky Gorge Reservoir, with a surface area of 618 acres (2.50 million square meters).

An additional study being funded by WSSC in conjunction with the MGS is conducting in-situ sediment oxygen demand (SOD) measurements in the Rocky Gorge Reservoir to support development of the reservoir model and TMDL. The SOD results will be used to compare reservoir model output to actual data collected.

Forestry Management and Recreational Use Survey

In May 2003, the Maryland Department of Natural Resources entered into an agreement with WSSC to conduct a study of forest resources and associated recreational uses on WSSC land in the Patuxent Reservoirs Watershed. Based on the results of this study, a Forest Conservation Plan has been drafted. Using an ecosystem-based approach, the 2006 draft, "Forest Conservation Plan for Washington Suburban Sanitary Commission Reservoir Properties," identifies existing and future conditions and goals for the WSSC forested lands around Triadelphia and T. Howard Duckett (Rocky Gorge) Reservoirs.

The goal of the plan is to identify and promote forest practices to improve water quality and regional biological diversity in the reservoirs watershed. Components of the plan include forest stand and understory data summaries, forest management recommendations, and recreational use and attitude surveys. The study recommends forest protection, restoration, and conservation as long term management goals to sustain a viable ecosystem for sustainable reservoir water quality, biodiversity and, wildlife habitat. Recommendations address forest operations to maintain forest health, reduce density in overstocked stands, and control invasive species prior to forest operations.

During the study, 75 forest stands were identified and sampled. Forest stand data collection was completed in fall 2005, and the US Forest Service decision support software for forest ecosystem management, NED-1, was used for data summary and analysis. This approach includes collecting data on overstory trees, understory conditions, forest canopy layers, and habitat elements for wildlife: woody debris, snags, seeps, rock piles, perches, and ponds. Stand acreages have been generated from the GIS files. Stand summaries include data on species, stocking (trees/acre), basal area (sq. ft./acre), wood volume, site quality, and median diameter at breast height (4.5 ft).

The existing WSSC forested area covers a total area of 3,857.7 acres, comprising less than 10% of the 132 square mile watershed. DNR Forest Service staff sampled 439 understory and 256 overstory sample plots, identifying 21 different types of forests with over 100 plant species. The study found that only 70% of the plots had regeneration potential, with only 40% with trees dominant in the overstory. Forest regeneration concerns based on these findings, suggest long term risk.

Invasive exotic plants are a more pervasive problem than anticipated, particularly where reservoir properties are narrow. The impact of deer on forests in the area was assessed using 10-year old deer exclosures, south of the reservoir properties on Maryland National-Capital Park and Planning Commission (MNCP&PC) land. Obvious browse effects were seen along exclosure boundaries, and interaction with spread of invasive species, particularly Japanese stiltgrass, was observed.

Forests around the reservoirs tend to have fairly dense stocking and basal area levels, particularly in areas planted to pine after the reservoirs were created. Most of these areas have not been thinned or harvested. Thinning, timber stand improvement cuts, and shelterwood or seed tree harvests are recommended based on existing stand conditions. These actions will reduce density

and help maintain the health and ability of the stands to resist pests such as southern pine beetle or other potential exotic invasive insects, such as Sirex wood wasp.

Recreation surveys were designed with input from the TAC and the WSSC Environmental Advocacy Committee. Three different surveys were prepared for the different audiences: WSSC rate-payers, recreation area users, and property owners adjoining the reservoir lands. For the rate-payer survey, half received a one-page summary of reservoir forest management issues, and half did not, to allow evaluation of the effect of information on attitudes and beliefs on this topic. Most of the recreation surveys were sent out in November 2005 to rate payers and Howard County neighbors. The recreation survey was mailed to additional neighboring landowners in Montgomery and Prince George’s Counties and available recreation user mailing lists in June 2006. Surveys were also distributed to on-site visitors at WSSC picnic and fishing areas at four different recreation areas in May and June 2006. Dr. Robertson of the University of New Hampshire the contractor for the survey design and analysis, has coordinated survey mailing, tracking, and follow-up mailings. WSSC staff provided the mailing lists and randomly selected customer sample. Initial analysis of returns from the rate payers showed broad support for recreational use of the reservoir properties. There was a positive relationship between level of knowledge and willingness to increase user fees to cover costs of providing the recreation opportunities.

RATE PAYER SURVEY RESULTS

Total surveys: 284 58 % Male or 42%Female

Age: mean=57 mode=57 median=57 range 22 years to 92 years

2%	Less than high school	25%	College Graduate
12%	High school graduate	41%	Postgraduate work
20%	Some college		

60%	Employed full time	.3%	Full time student
8%	Employed part time	32	Not employed/retired/disability

Did You Know?

That the WSSC operates and maintains the Triadelphia and Rocky Gorge water supply reservoirs? n=284	40% Yes	60% No
Current use policies allow individuals who are not rate payer to recreate on WSSC reservoir lands?	72% Yes	28% No

Info. No=45% (n=158) Yes=55% (n=191)

Member of any recreational groups 65 Yes 94% No

Recreational Activities Participation

Outdoor Recreation Activity (n=283)	Never	Once a year	2-3 times/year	4-10 times/year	11-25 times/year	Almost weekly	Almost daily
Walking/Jogging	18%	2%	6%	13%	14%	22	22%
Dog walking	73%	2%	2%	3%	3%	5%	11%
Horseback riding	87%	8%	3%	.4%	.4%	.4%	.7%
Bird watching Wildlife viewing Photography	51%	8%	3%	.4%	.4%	.4%	.7%
Picnicking	33%	20%	29%	15%	2%	1%	0%
Canoeing/ Kayaking	80%	8%	6%	4%	2%	1%	0%
Sail boating	88%	7%	4%	1%	1%	0%	0%
Fishing from boat	75%	10%	6%	4%	3%	0%	0%
Fishing from shore	70%	11%	10%	6%	3%	1%	0%
Hunting (deer)	93%	1%	1%	2%	2%	0%	0%
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sources of Information

A variety of sources of information and organizations are listed below. Please indicate if you have received information on water quality issues and whether the information was helpful to you or someone in your household.

	Source of information?		Was this information helpful?	
	Yes	No	Yes	No
WSSC Pipeline newsletter	70%	30%	70%	30%
WSSC online website	24%	76%	75%	25%
Local newspaper (e.g., free weekly)	54%	46%	55%	45%
Regional newspaper (e.g., Post, Times)	63%	37%	63%	37%
Radio	38%	62%	38%	62%
Public radio	37%	63%	39%	61%
Television	50%	50%	51%	49%
Public television	39%	61%	38%	62%
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What do you think?

To what extent do you personally agree or disagree with the following statements? Please check the response that best describes your opinion for the each statement.

<u>Attitudes & Issues (n=289)</u>	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
I would support a small recreation user fee to maintain the quality of the reservoir areas. X=3.58	10%	13%	12%	42%	24%
Every person is responsible for protecting the quality of the natural environment. X=4.53	2%	1%	3%	29%	65%
Watershed police do a good job of enforcing existing rules. X=3.33	3%	5%	55	29%	9%
WSSC management should do more to manage the local deer population. X=3.62	3%	7%	35%	36%	20%
The best way to address water pollution is through public education rather than government regulations. X=3.37	8%	19%	17%	35%	19%
Recreation users help care for the land and water quality. X=3.32	4%	19%	32%	33%	13%
My drinking water quality is threatened by nonpoint pollution. X=3.53	3%	7%	40%	34%	15%
I would support rate increase to be used for water quality issues. 3.08	17%	22%	11%	34%	16%
Additional rules are necessary to effectively manage recreation activities. X=3.52	2%	6%	41%	37%	13%
I support regulated hunting to control the deer population. X=3.73	9%	7%	13%	42%	29%
I support picnicking on WSSC reservoir lands x=3.90	3%	7%	15%	48%	27%
I support boating on WSSC reservoirs. x=3.46	7%	14%	22%	39%	18%
I support horseback riding on WSSC reservoir lands x=3.30	9%	16%	25%	35%	15%
I support shore fishing on WSSC reservoir lands x=3.69	4%	10%	18%	49%	19%
I have contacted the WSSC about land management issues x=2.46	21%	20%	53%	4%	3%
I have contacted the WSSC about water quality issues x=2.51	21%	20%	49%	7%	3%

The following is a listing of recreation sites within the WSSC Patuxent reservoir area. If you have visited any of these areas within the past 12 months, please check all that apply and state how many times you visited that site.

Site (n=288)	Visited	Number of Times Visited
Scott's Cove	4%	28 total visits
M.N.C.P. & P.C. Recreation Area	19%	1000 total visits#
Triadelphia Area	11%	58 total visits
Big Branch Area	2%	4 total visits
Greenbridge	4%	30 total visits
Supplee Lane	2%	2 total visit
Brown's Bridge	4%	25 total visits
Equestrian Trail	4%	10 total visits
Pig Tail Area	2%	5 total visits
Brighton Dam Azalea Garden	16%	100 total visits

Next, we would like to ask you some questions about how you perceive some recreational activities influence water quality on WSSC Patuxent reservoirs and lands. For the items below, please indicate whether you think each activity is a **GOOD** or **BAD** use of the WSSC reservoirs and lands.

Activity(n=267)	Extremely Bad	Somewhat Bad	Neither	Somewhat Good	Extremely Good
Picnicking x=3.58	4%	11%	31%	29%	24%
Boating x=3.08	12%	23%	25%	26%	15%
Horseback Riding x=3.08	10%	21%	33%	25%	11%
Shore Fishing x=3.46	5%	13%	31%	34%	18%
Hunting x=2.69	23%	19%	31%	18%	9%

The WSSC currently allows the general public, including non-rate payers, to recreate on WSSC reservoirs and lands. Users are charged \$3/day or \$30/year for activities other than picnicking and playground use. Please indicate your preferences for the future of recreation on WSSC reservoirs and lands if the user charges can't cover all related expenses.

Issue (n=284)	Yes	No	Unsure
The WSSC should allow recreation on reservoir lands (e.g. picnicking, horseback riding, etc.)	66%	12%	22%
The WSSC should allow recreation on the reservoirs (e.g. non-motor boating and fishing)	64%	16%	21%
Recreational opportunities should only be available to WSSC rate payers	27%	52%	21%
Recreational opportunities should be available to all individuals on WSSC reservoir lands	53%	25%	22%
Non-rate payers only should have to pay a user fee to recreate on WSSC reservoir lands	44%	33%	22%
All users of the WSSC reservoirs and lands, including rate-payers, should have to pay a user fee to recreate	38%	41%	21%
Increase user fees to cover all related expenses.	37%	36%	27%

DAY USER SURVEY RESULTS

Total Surveys: 273 Male 204 (73%) Female 69 (25%)

	High school graduate: 36 (13%)		College Graduate: 67 (24%)
	Some college: 52 (19%)		Postgraduate work: 109 (39%)

	Employed full time: 172 (61%)		Full time student: 6 (2%)
	Employed part time: 26 (9%)		Not employed/retired/disability: 65 (23%)

Did you know?

That the WSSC operates and maintains the Triadelphia and Rocky Gorge water supply reservoirs?	Yes 203 (72%)	No 31 (11%)
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The following is a listing of recreation sites within the WSSC Patuxent Reservoir area. If you have visited any of these areas within the past 12 months, please check all that apply and state how many times you have visited that site.

Site	Visited	Number of Times Visited
Scott's Cove	104 (37%)	#
M.N.C.P. & P.C. Recreation Area	25 (9%)	#
Triadelphia Area	162 (58%)	#
Big Branch Area	20 (7%)	#
Greenbridge	60 (21%)	#
Supplee Lane	38 (14%)	#
Brown's Bridge	81 (29%)	#
Equestrian Trail	2 (10%)	#
Pig Tail Area	66 (24%)	#
Brighton Dam Azalea Garden	142 (51%)	#

Recreational Activities Participation

Listed below are a number of recreation activities that you or members of your household may participate. Please indicate which activities and approximately how many times you or members of your household participated in these activities.

<u>Outdoor Recreation Activity</u>	Never	Once / year	2-3	4-10	11-25	Almost weekly	Almost daily
Walking/Jogging	22(8%)	13 (5%)	34 (12%)	44 (16%)	34 (12%)	46 (16%)	39 (14%)
Dog walking	115 (41%)	4 (2%)	19 (7%)	9(3%)	6 (2%)	15 (5%)	26 (9%)
Horseback riding	146 (52%)	12 (4%)	5 (2%)	4 (1%)	5 (2%)	13 (5%)	6 (2%)
Bird watching Wildlife viewing Photography	55 (20%)	15 (5%)	43 (15%)	32 (11%)	31 (11%)	22 (8%)	12 (4%)
Picnicking	43 (15%)	31 (11%)	71 (25%)	44 (16%)	16 (6%)	6 (2%)	0 (0%)
Canoeing/Kayaking	91 (32%)	19 (7%)	23 (8%)	35 (13%)	26 (9%)	13 (5%)	2 (1%)
Sail boating	148 (53%)	9 (3%)	□ 6 (2%)	11 (4%)	6 (2%)	2 (1%)	1 (.5%)
Fishing from boat	84 (30%)	22 (8%)	28 (10%)	33 (12%)	34 (12%)	11 (4%)	5 (2%)
Fishing from shore	75 (27%)	23 (8%)	53 (19%)	29 (10%)	19 (7%)	12 (4%)	1(.5%)
Hunting (deer)	123 (44%)	5 (2%)	10 (4%)	34 (12%)	26 (9%)	5 (2%)	3(1%)
Other _____	27 (10%)	0 (0%)	8 (3%)	2 (1%)	4 (1%)	3 (1%)	4 (1%)

Next, we would like to ask you some questions about how you **perceive** some recreational activities influence water quality on WSSC Patuxent reservoirs and lands. For the items below, please indicate whether you think each activity is a **GOOD** or **BAD** use of the WSSC reservoirs and lands.

Activity	Extremely Bad	Somewhat Bad	Neither	Somewhat Good	Extremely Good
Picnicking	3 (1%)	<input type="checkbox"/> 19 (7%)	<input type="checkbox"/> 53 (19%)	<input type="checkbox"/> 73 (26%)	<input type="checkbox"/> 96 (34%)
Boating	<input type="checkbox"/> 3 (1%)	<input type="checkbox"/> 22 (8%)	<input type="checkbox"/> 48 (17%)	<input type="checkbox"/> 65 (23%)	<input type="checkbox"/> 106 (38%)
Horseback Riding	<input type="checkbox"/> 14 (5%)	<input type="checkbox"/> 49 (17%)	<input type="checkbox"/> 62 (22%)	<input type="checkbox"/> 57 (20%)	<input type="checkbox"/> 43 (15%)
Shore Fishing	<input type="checkbox"/> 5 (2%)	<input type="checkbox"/> 26 (9%)	<input type="checkbox"/> 59 (21%)	<input type="checkbox"/> 74 (26%)	<input type="checkbox"/> 75 (27%)
Hunting	<input type="checkbox"/> 25 (9%)	<input type="checkbox"/> 21 (8%)	<input type="checkbox"/> 59 (21%)	<input type="checkbox"/> 46 (16%)	<input type="checkbox"/> 83 (30%)
Environmental Education	<input type="checkbox"/> 2 (1%)	<input type="checkbox"/> 20 (7%)	<input type="checkbox"/> 64 (23%)	<input type="checkbox"/> 151 (54%)	<input type="checkbox"/> 1 (.5%)

The WSSC currently allows non-rate payers to recreate on WSSC reservoirs and lands. Users are charged \$3/day or \$30/year for activities other than picnicking and playground use. Please indicate your preferences for the future of recreation on WSSC reservoirs and lands if the user charges can't cover all related expenses.

Issue	Yes	No	Unsure
The WSSC should allow recreation on reservoir lands (e.g. picnicking, horseback riding, etc.)	227 (81%)	13(5%)	17 (6%)
The WSSC should allow recreation on the reservoirs (e.g. non-motor boating and fishing)	233 (83%)	11 (4%)	14 (5%)
Recreational opportunities should only be available to WSSC rate payers	50 (18%)	167 (59%)	37(13%)
Recreational opportunities should be available to all individuals on WSSC reservoir lands	180 (64%)	28 (10%)	43 (15%)
Non-rate payers only should have to pay a user fee to recreate on WSSC reservoir lands	111 (40%)	93 (33%)	47 (17%)
All users of the WSSC reservoirs and lands should have to pay a user fee to recreate	118 (42%)	93 (33%)	47 (17%)

What do you think?

To what extent do you personally agree or disagree with the following statements? Please check the response that best describes your opinion for the each statement.

<u>Attitudes & Issues</u>	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
I would support a small recreation user fee increase to maintain reservoir water quality.	15 (5%)	<input type="checkbox"/> 36 (13%)	<input type="checkbox"/> 30 (11%)	<input type="checkbox"/> 128 (46%)	<input type="checkbox"/> 49 (17%)
I would support a small general rate increase to maintain reservoir water quality.	<input type="checkbox"/> 14 (5%)	<input type="checkbox"/> 34 (12%)	<input type="checkbox"/> 35 (13%)	<input type="checkbox"/> 128 (46%)	<input type="checkbox"/> 43 (15%)
Every person is responsible for protecting the quality of the natural environment.	<input type="checkbox"/> 2 (1%)	<input type="checkbox"/> 3 (1%)	<input type="checkbox"/> 6 (2%)	<input type="checkbox"/> 54 (19%)	<input type="checkbox"/> 201 (95%)
Watershed police do a good job of enforcing existing rules.	<input type="checkbox"/> 9 (3%)	<input type="checkbox"/> 18 (6%)	<input type="checkbox"/> 69 (25%)	<input type="checkbox"/> 107 (38%)	<input type="checkbox"/> 48 (17%)
WSSC management should do more to manage the local deer population.	<input type="checkbox"/> 11 (4%)	<input type="checkbox"/> 21 (8%)	<input type="checkbox"/> 82 (29%)	<input type="checkbox"/> 78 (28%)	<input type="checkbox"/> 66 (24%)
The best way to address water pollution is through public education rather than government regulations.	<input type="checkbox"/> 13 (5%)	<input type="checkbox"/> 61 (22%)	<input type="checkbox"/> 48 (17%)	<input type="checkbox"/> 97 (35%)	<input type="checkbox"/> 40 (14%)
Recreation users help care for the land and water quality.	<input type="checkbox"/> 7 (3%)	<input type="checkbox"/> 23 (8%)	<input type="checkbox"/> 69 (25%)	<input type="checkbox"/> 113 (40%)	<input type="checkbox"/> 47 (7%)
My drinking water quality is threatened by nonpoint pollution.	<input type="checkbox"/> 9 (3%)	<input type="checkbox"/> 24 (9%)	<input type="checkbox"/> 93 (33%)	<input type="checkbox"/> 77 (24%)	<input type="checkbox"/> 35 (13%)
Additional rules are necessary to effectively manage recreation activities.	<input type="checkbox"/> 28 (10%)	<input type="checkbox"/> 64 (23%)	<input type="checkbox"/> 91 (32%)	<input type="checkbox"/> 50 (18%)	<input type="checkbox"/> 18 (6%)
I support regulated hunting to control the deer population.	<input type="checkbox"/> 16 (6%)	<input type="checkbox"/> 12 (4%)	<input type="checkbox"/> 24 (9%)	<input type="checkbox"/> 90 (32%)	<input type="checkbox"/> 120 (43%)
I support picnicking on WSSC reservoir lands	<input type="checkbox"/> 7 (3%)	<input type="checkbox"/> 6 (2%)	<input type="checkbox"/> 22 (8%)	<input type="checkbox"/> 119 (42%)	<input type="checkbox"/> 105 (37%)
I support boating on WSSC reservoirs	<input type="checkbox"/> 5 (2%)	<input type="checkbox"/> 7 (3%)	<input type="checkbox"/> 19 (7%)	<input type="checkbox"/> 105 (37%)	<input type="checkbox"/> 124 (44%)
I support horseback riding on WSSC reservoir lands	<input type="checkbox"/> 18 (6%)	<input type="checkbox"/> 30 (11%)	<input type="checkbox"/> 53 (19%)	<input type="checkbox"/> 89 (32%)	<input type="checkbox"/> 69 (25%)
I support shore fishing on WSSC reservoir lands	<input type="checkbox"/> 7 (3%)	<input type="checkbox"/> 11 (4%)	<input type="checkbox"/> 21 (8%)	<input type="checkbox"/> 130 (46%)	<input type="checkbox"/> 89 (32%)
I have contacted the WSSC about land management issues.	<input type="checkbox"/> 42 (15%)	<input type="checkbox"/> 34 (12%)	<input type="checkbox"/> 136 (48%)	<input type="checkbox"/> 21 (8%)	<input type="checkbox"/> 12 (4%)
I have contacted the WSSC about water quality issues.	<input type="checkbox"/> 41 (15%)	<input type="checkbox"/> 44 (16%)	<input type="checkbox"/> 138 (49%)	<input type="checkbox"/> 16 (6%)	<input type="checkbox"/> 5 (2%)

Activity	No Impact	Slight Impact	Moderate Impact	Strong Impact	Don't Know
Disposal of household chemicals down the drain (e.g. oil, paints)	0 (0%)	13 (5%)	52 (19%)	172 (61%)	17 (6%)
Septic systems, maintained	53 (19%)	70 (25%)	51 (18%)	50 (18%)	30 (11%)
Septic systems, not maintained	1 (.5%)	18 (6%)	52 (19%)	155 (55%)	23 (8%)
Runoff from agricultural cropland	0 (0%)	14 (5%)	48 (17%)	175 (62%)	13 (7%)
Livestock within the watershed (e.g. horses, cows, pigs, etc.)	5 (2%)	35 (13%)	81 (29%)	111 (40%)	19 (7%)
Runoff from developed land (e.g. parking lots, shopping malls, etc.)	1 (.5%)	17 (6%)	61 (22%)	162 (58%)	13 (5%)
Garbage and litter left near WSSC reservoirs or streams	4 (1%)	37 (13%)	93 (33%)	111 (40%)	9 (3%)
Deer grazing on tree saplings	43 (15%)	58 (21%)	70 (25%)	49 (17%)	32 (11%)
Recreational fishing from a boat on WSSC reservoirs	99 (35%)	85 (30%)	39 (14%)	7 (3%)	21 (8%)
Stormwater drainage (e.g. drains on the street)	6 (2%)	49 (17%)	83 (30%)	95 (34%)	19 (7%)
Horseback riding on WSSC lands	56 (20%)	102 (36%)	43 (15%)	25 (9%)	22 (8%)
Highway maintenance practices & construction	5 (2%)	51 (18%)	81 (29%)	82 (29%)	29 (10%)
Increased erosion from walking near WSSC reservoir/stream banks	55 (20%)	115 (41%)	45 (16%)	13 (5%)	21 (8%)
Runoff from parking lots and paved areas on WSSC lands	22 (8%)	101 (36%)	63 (22%)	45 (16%)	16 (6%)
New house construction	4 (1%)	41 (15%)	84 (30%)	102 (36%)	21 (8%)
Industrial development	2 (1%)	19 (7%)	71 (25%)	138 (49%)	22 (8%)
Picnicking on WSSC lands	117 (42%)	93 (33%)	24 (9%)	5 (2%)	11 (4%)
Lawn & garden chemicals applied on lands	2 (1%)	42 (15%)	72 (26%)	123 (44%)	14 (5%)
Recreational fishing from the shore of WSSC lands	101 (36%)	97 (35%)	28 (10%)	8 (3%)	16 (6%)
Other (<i>list</i>)	3 (1%)	3 (1%)	5 (2%)	6 (2%)	11 (4%)

Sources of Information

A variety of sources of information and organizations are listed below. Please indicate if you have received information on water quality issues and whether the information was helpful to you or someone in your household.

	Source of information?		Was this information helpful?	
	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>
WSSC Pipeline newsletter	<input type="checkbox"/> 66 (24%)	<input type="checkbox"/> 87 (31%)	<input type="checkbox"/> 63 (22%)	<input type="checkbox"/> 14 (5%)
WSSC online website	<input type="checkbox"/> 58 (21%)	<input type="checkbox"/> 95 (34%)	<input type="checkbox"/> 47 (17%)	<input type="checkbox"/> 16 (6%)
Local newspaper (e.g., free weekly)	<input type="checkbox"/> 90 (32%)	<input type="checkbox"/> 70 (25%)	<input type="checkbox"/> 76 (27%)	<input type="checkbox"/> 11 (4%)
Regional newspaper (e.g., Post, Times)	<input type="checkbox"/> 103 (37%)	<input type="checkbox"/> 67 (24%)	<input type="checkbox"/> 81 (29%)	<input type="checkbox"/> 14 (5%)
Radio	<input type="checkbox"/> 45 (16%)	<input type="checkbox"/> 96 (34%)	<input type="checkbox"/> 36 (13%)	<input type="checkbox"/> 20 (7%)
Public radio	<input type="checkbox"/> 51 (18%)	<input type="checkbox"/> 94 (34%)	<input type="checkbox"/> 38 (14%)	<input type="checkbox"/> 18 (6%)
Television	<input type="checkbox"/> 67 (24%)	<input type="checkbox"/> 82 (29%)	<input type="checkbox"/> 56 (20%)	<input type="checkbox"/> 19 (7%)
Public television	<input type="checkbox"/> 61 (22%)	<input type="checkbox"/> 87 (31%)	<input type="checkbox"/> 52 (19%)	<input type="checkbox"/> 18 (6%)
Other	<input type="checkbox"/> 21 (8%)	<input type="checkbox"/> 35 (13%)	<input type="checkbox"/> 19 (7%)	<input type="checkbox"/> 8 (3%)

Are you a member of any recreational groups or organizations (e.g. T.R.O.T., MD Bow Hunters Assn., etc)?
Yes 88 (31%) No 142 (51%)

APPENDIX 1

PATUXENT RESERVOIRS WATERSHED PROTECTION AGREEMENT

PATUXENT RESERVOIRS WATERSHED PROTECTION AGREEMENT

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

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

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

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

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

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

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

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

ARTICLE I - ESTABLISHMENT OF A PATUXENT RESERVOIR PROTECTION STRATEGY

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

ARTICLE II - POLICY BOARD

A Members

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

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

B Functions

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

The Board shall consider:

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

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

C Chairpersons

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

ARTICLE III - TECHNICAL ADVISORY COMMITTEE

A Members

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

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

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

B Functions

- 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 10/29/96
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

APPENDIX 2

2006 POLICY BOARD MEETING AGENDA AND SUMMARY



Policy Board

*William Barnes
James Caldwell
Andrew Brunhart
George Lechliden
Trudye Morgan-Johnson
James Robey
Donna Wilson*

*Howard Soil Conservation District
Montgomery County
Washington Suburban Sanitary Commission
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
November 9, 2006
1:30 p.m.
Washington Suburban Sanitary Commission Auditorium

Welcome, Introductions, and Purpose	J. Robey (Policy Board Chair)
'Reduce, Reuse, Recycle'	Burtonsville Elementary School
2006 Accomplishments and Annual Report	S. Overstreet (TAC Chair)
Proposed 2007 Work Program and Funding	S. Overstreet (TAC Chair)
Policy Board Discussion	Policy Board
1. 2006 Annual Report	
2. Proposed 2007 Work Program and Funding	
Administrative Business	Policy Board
1. Transfer of Chair to Montgomery County	
Adjournment	Montgomery County (Policy Board Chair)



Patuxent Reservoirs Watershed Protection Group

Annual Policy Board Meeting Summary

November 9, 2006

Washington Suburban Sanitary Commission

Policy Board:

James Robey (Chair), Howard County
William Barnes, Howard Soil Conservation District
Andrew Brunhart, Washington Suburban Sanitary Commission
James Caldwell, Montgomery County
Trudye Morgan Johnson, MNCP&PC (absent)
George Lechluder, Montgomery Soil Conservation District
Donna Wilson, Prince George's County, (represented by Jerry Maldonado)

Technical Advisory Committee:

Susan Overstreet (HCDPZ) – Chair, Mohammad Habibian (WSSC) – Vice Chair, Meosotis Curtis (MCDEP), Jerry Maldonado (PGDER), Kristal (Lull) McCormick (HSCD), Paul Meyer (PGHD), Katherine Nelson (MNCPPC), David Plummer (MSCD), Howard Saltzman (HCDPW), and Stan Wong (MCDPS).

Absent: Bert Nixon (HCHD), Gul Behsudi (MDE), John McCoy (DNR)

Other Attendees:

Sandra August (WSSC), Carrie Capuco (Capuco Consulting), Tobias Kagan (WSSC), Mina Hilsenrath (HCDPZ), Angela Morales (HCDPW), Jim Neustadt (WSSC), Joe Zorica (WSSC), Burtonsville Elementary 4th and 5th Graders and their teacher, Linda Schneider.

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

James Robey welcomed all and called the meeting to order at 1:35 p.m.

Mr. Robey welcomed all present, especially the students from Burtonsville Elementary School. Mr. Robey stated that he had recently been elected to the Maryland Senate. He also expressed how much he had enjoyed serving on the Policy Board and that he had learned a great deal in his tenure.

Mr. Robey stated that the purpose of the meeting is to review the 2006 accomplishments and goals and to recognize one of the Green Schools Mentoring Partnership participants. He then introduced the Burtonsville Elementary team.

The Burtonsville Elementary students performed a short skit that they had also performed at the Reservoir Campfire in October 2006. The presentation was a dance to an “America Rocks” song entitled “3 Is a Magic Number – Reduce, Reuse, Recycle.”

Following the skit, Mr. Robey presented a certificate of recognition to Burtonsville Elementary, which became a State certified Green School in 2006. Ms Linda Schneider, who was instrumental in this effort, accepted the certificate on behalf of the school.

Mr. Robey then passed the meeting to Susan Overstreet, TAC Chair.

2006 Accomplishments and Annual Report

Ms. Overstreet gave a PowerPoint presentation updating the Policy Board on the TAC’s accomplishments for 2006 and the proposed work plan and funding for 2007 (presentation attached).

The presentation covered the following:

- The TAC has focused on protecting and restoring the Priority Resources as identified in the Comprehensive Management Planning Study published in 1997.
 - These Priority Resources include the reservoirs and drinking water supply; terrestrial and stream system habitats; the aquatic community; the rural character of the watershed; and public stewardship.
- At the 2005 Policy Board meeting, the TAC presented a request for \$485,000 in additional funding for riparian forest buffer projects. The Policy Board decided instead to pursue contractual staff at WSSC to help with securing grants funds.
 - The Consultants were hired in August 2006.
- The first riparian buffer pilot project will be in Montgomery County in the Reddy Branch Stream Valley Park in the headwaters of Reddy Branch.
 - At this time, it will include approximately 10 acres of riparian buffer planting at an estimated cost of \$300,000.
 - There is also the potential for stream restoration at the head of the channel.
 - Grant applications are being prepared for \$400,000 in funding.
 - Howard County is working on identifying sites for additional projects.
- During 2006, TAC member agencies continued to make progress on established work program items.
 - Chemical water quality monitoring in the reservoirs and biological monitoring in tributary streams.
 - Stream restoration projects completed in Hawlings and ongoing in Cherry Creek.
 - Reservoir and watershed models will be used to develop TMDLs for the reservoirs.
 - Ongoing implementation of agricultural bmps.

- An implementation priority for the TAC is increasing public stewardship.
 - The TAC continues to sponsor Earth Month, with nine Watershed Stewardship events in April.
 - Much of the year-round public outreach activities have been focused on the schools through the Green Schools Mentoring Partnership.
 - Mentoring Partnership schools are also highlighted during the annual campfire event at Brighton Dam. This fall, over 500 students and their families participated in the campfire event.
 - WSSC reorganized their public outreach staff this year into an Office of Communication and Community Relation to better focus outreach efforts.
 - WSSC feels this will provide more resources for the reservoirs outreach effort.

- A Forest Management Study began in 2003 and will be completed in late 2006 / early 2007.
 - Primary goal is to develop forest management recommendations to protect water quality and secondary goal is to maintain regional biodiversity.
 - Conducted by DNR with funding from WSSC.
 - Detailed data collection on forest conditions at 75 sampling sites on WSSC property.
 - Preliminary recommendations for forest management include:
 - Improve forest health through thinning.
 - Encourage canopy tree regeneration by addressing impacts from deer and invasive species.

- The Forest Management Study also takes a closer look at recreational activities in the watershed, because this use has impacts on water quality and habitat.
 - The recreational use survey was designed to gather information on location and frequency of use and acceptance of recreation uses by WSSC ratepayers, recreation users, and neighboring landowners.
 - Neighbor surveys included questions on attitudes towards deer.

Ms. Overstreet then presented the work program and budget for the current fiscal year and the proposed budget for FY 2008. She indicated that the TAC will continue to move forward with the activities discussed previously, contributing capital funds and in-kind services. The total budget for FY 2007 is \$402,000 and the proposed budget for FY 2008 is \$273,200.

Ms. Overstreet also explained that one new action that was not covered in the work program is WSSC's Supplemental Environmental Program, which is a result of the recent Consent Decree. WSSC will spend just over \$3 million in the next 5 years to acquire land or easements on property adjacent to the reservoirs.

Policy Board Discussion

Mr. Robey asked Ms. Overstreet whether the TAC was making progress. The question was answered by Dr. Habibian who indicated that it is difficult to give a meaningful answer due to the fact that short-term water quality changes related to weather can overshadow the long-term trend in water quality. The trend analysis conducted in 2004, using multi-year data, indicated a decline in water quality. The analysis will be repeated every five years, with the next one scheduled for 2009. It may provide an insight whether a notable change in water quality trend is occurring.

Mr. Robey also asked if additional resources were needed. Ms. Overstreet responded to this question indicating that there is always a need for more money, but the addition of a consultant to help with grant funding should help in this area.

Mr. Caldwell then inquired how the TAC is progressing. He indicated that some years it is more active than others on projects. Ms Overstreet stated that the TAC is hopeful that with the consultant and new grant funding opportunities, the TAC will be able to make additional progress in the next year.

In response, Mr. Caldwell indicated that at the 2007 Policy Board meeting, he then expected to see great progress. He suggested a mid-year update on progress regarding Reddy Branch. Dr. Habibian then added that WSSC has already submitted a request to fund the contractor for a second year.

Mr. Caldwell then moved to approve the proposed TAC work plan and budget for FY 2008. It was approved by unanimous consent.

Administrative Business

The Chair then passed to James Caldwell of Montgomery County.

The meeting adjourned at 2:00 p.m.

APPENDIX 3

2006 TAC MEETING AGENDAS AND SUMMARIES

Patuxent Reservoirs Watershed Protection Group

Technical Advisory Committee

WSSC Bid and Training Room (LK121)

March 21, 2006

1:30 p.m. – 4:00 p.m.

Call To Order/Opening Remarks

Chair - Overstreet

Administrative Business

Chair - Overstreet

1. Approval of 9/20/05 meeting minutes
2. Approval of Meeting Summary for Policy Board

Old Business

Forestry Study/Recreational Use Survey updates

Anne Hairston-Strang
30 min.

Ms. Hairston-Strang will present results to the TAC and lead discussion on next steps for the Reservoirs Watershed Protection Group.

Update on Sedimentation Study, Sediment Mapping, and Modeling

WSSC
10 min.

Update on agricultural activities in the Patuxent

Howard/Montgomery/SCD
15 min.

Update on Urban Nutrient Management Workshop

David Plummer
5 min.

2005 Policy Board Meeting

Overstreet/Curtis
5 min.

Ms. Overstreet and Ms. Curtis will bring the TAC up to date on the 2005 Policy Board meeting, focusing on request for staff, new position description, proposed work program and annual funding.

Status of Request For Contract Employee

M. Habibian

5 min.

Dr. Habibian will update the TAC on the Policy Board request for a new contract position.

New Business

WSSC Environmental Stewardship Workgroup

Sally Barkley

20 min.

Ms. Barkley will discuss the workgroups efforts to date, specifically the recommendations for management of the WSSC property around the reservoirs.

Public Outreach

Outreach Group

20 min.

The group will discuss Earth Month activities planned for 2006

All are welcome to bring up new business

Next Meeting-Topics and Date

All

Adjournment

Chair



Patuxent Reservoirs Watershed Protection Group

Technical Advisory Committee

Meeting Summary of March 21, 2006

TAC Members in Attendance: Meosotis Curtis (MCDEP), Gul Behsudi (alternate, MDE), Mohammad Habibian (WSSC), Buddy Loffler (MDA), Jerry Maldonado (PGDER), Paul Meyer (PGHD), Bert Nixon (HCHD), Susan Overstreet (HCDPZ), Dave Plummer (MSCD), Howard Saltzman (HCDPW), Mark Symborski (alternate, MNCP&PC), Stan Wong (MCDPS)

TAC Members Absent: Sharon Mariaca (HSCD), John McCoy (DNR)

Other Attendees: Sandra August (WSSC), Dianne Davis (MCDEP), Tobias Kagan (WSSC), Anne Hairston-Strang (MD/DNR/Forest Service), Alfred Titus-Glover (PGDER), Plato Chen (WSSC)

Administrative Business:

September 20, 2005 meeting summary approved.

October 2005 Policy Board meeting summary – a copy of the summary will be redistributed for review and approval at the next TAC meeting.

Old Business:

Forest Study/Recreational Survey – Ms. Hairston-Strang gave a presentation on the progress of the study to date. She discussed the goals of the study, desired future forest conditions, existing condition and the North East Decision Model used for the study.

Goal – Manage the forest to protect water quality.

Secondary Goal – Maintain biodiversity, wildlife habitat, and recreation

Desired Condition – Manage the forest for resiliency after major disturbance

Present Condition for the Rocky Gorge area (the Triadelphia area analysis is still being conducted):

1. Pretty good species diversity at 104 tree species
2. Forest is mature but still growing with median DBH 14.8 in.
3. Median basal area 140 sq ft/ac
4. 73% canopy cover
5. Forest overstory in generally good condition for water quality function

6. Little tree regeneration (shade, browse, competition) and shift in species mix to more shade tolerant understory
7. Understory still has some species diversity but also has pervasive invasive species

Suggested Recommendations:

1. Maintain or increase deer hunting
2. Control invasive species before any stand improvement cuts to encourage regeneration and canopy layers
3. Address erosion problems on roads and trails
4. Control recreational use and manage impacts

The recreational survey was sent out to rate payers and reservoir neighbors, and a day use survey will be conducted. There were 2,000 surveys sent last fall and 800 responses. The results are still being compiled and analyzed, and there will be a second mailing to non-respondents. The results may be ready in two to three months. Digital copies of the surveys will be sent out to the TAC.

Additional discussion included Mr. Plummer's suggestion that this would be an opportunity for research on deer exclosures and Dr. Habibian's request for more information on the fire road maintenance.

Watershed/Reservoir Model – Mr. Rule (MDE) was not present but submitted a brief e-mail on progress to date.

1. The watershed model is being recalibrated to run through 2003
2. Calibrating for temperature in watershed model
3. Received SERC data and it is being reviewed and may be used in the watershed model
4. Preparing meteorological input for reservoir model
5. Preparing surface elevations for water balance
6. Reviewing data for caps and needed inputs

Sedimentation Study – Sean Smith (DNR) was not present and did not provide an update. The study is in year two of a three year study. Dr. Habibian expressed concern that funding for the study may be cut because WSSC has not received an invoice for work done to date. The TAC requested that Mr. Smith attend the next meeting to provide an update.

Agricultural Activities:

Howard County Update: Kristal Lull sent an update on the Howard Soil Conservation District activities for 10 new BMP's including, 2 waste storage structures, 1 stream crossing, 1 pond, 3,989 ft of stream fencing, 3 new conservation plans, and 6 revised plans.

Montgomery County Update: Mr. Plummer discussed the new zoning amendment passed to regulate most horse operations as an agricultural use rather than a special exception. Horse operations with 10 or more horses will now be required to have soil conservation and nutrient management plans. The Montgomery County Soil Conservation District added a new position for an equine resource conservationist.

Nutrient Management Workshop – Mr. Plummer discussed the workshop held last November at Montgomery College which was a great success. The workshop was sponsored by the Mid Potomac Tributary Team. The major outcome was a subgroup to work with fertilizer producers to voluntarily remove phosphorous from their lawn care products. The subgroup is also investigating the possibility of pursuing legislation to remove phosphorous from lawn fertilizers in Maryland. Wisconsin and Minnesota both have laws banning phosphorous from over-counter fertilizers unless a valid soil test shows it is needed.

2005 Policy Board Meeting Update – Ms. Overstreet brought the committee up to date on the meeting discussing the focus on WSSC hiring a contract person.

Contract Employee Status – Dr. Habibian brought the committee up to date on the progress of the initiative:

1. There is a new process in place to identify items for funding
2. The General Manager agreed to fund a contract employee for two years
3. The money has been put in the Environmental Group budget for 07
4. The budget needs to be approved by both County Councils and a decision is expected in May

New Business:

WSSC Environmental Stewardship Workgroup – Ms. Barkley (WSSC) discussed the workgroup's goal, progress, and proposed recommendations. The workgroup was formed in September 2005 to discuss improvements in protecting the reservoirs watershed. The workgroup includes WSSC staff and a representative from the Environmental Advisory Committee.

Issues:

1. Negative effects of runoff
2. Adverse public impacts on shoreline and reservoirs
3. Protection of the water intake
4. Protection of reservoirs from invasive species
5. Trash
6. Loss of watershed staff
7. Fragmented management

8. Increasing access to hiking trails in Montgomery County
9. Archeological and ecological resource protection

Proposed Recommendations:

1. Restrict boat use to only one reservoir
2. Evaluate boat ramps (close 3, repair others)
3. Increase boat mooring user fees and evaluate mooring sites
4. Limit shore fishing to designated areas
5. Require pet owners to pick up after pets
6. Improve tracking of hunting and consider extending the closure period to include the hunting period
7. Consider allowing hiking on horseback trails
8. Move trails away from water
9. Create an environmental resource manager to oversee entire watershed
10. Add outreach staff and create an environmental center at Brighton Dam
11. Revise permit provisions to reduce number of abandoned boats
12. Better permit enforcement
13. Limiting the number of permits issued for any activity
14. Generate legislation to regulate phosphate fertilizer use
15. Cooperatively work with local counties for park management/usage

Alternative Considerations

1. Retain the status quo
2. Closing public access to both reservoirs
3. Closing T.Howard Duckett reservoir and restricting overall use

The group is soliciting comments from the public and will incorporate these in their report to the steering committee. The workgroup asked for comments from the TAC within one week. The TAC was unable to respond in the short comment period so the TAC will send a letter to the workgroup asking for additional review time to allow a more in-depth discussion of the issues at the June meeting and consideration of the results from the public use survey. If TAC members identify any key issues of concern, these will also be mentioned in the letter.

Public Outreach – Ms. August went over the Earth Month publicity and activities scheduled for the watershed in April, and suggested that a TAC member attend each function.

April 22, 2006 is the important date to remember, which will be Watershed Day at Supplee Lane at Rocky Gorge.

The library program has been expanded to include Laurel Elementary.

Next Meeting: June 20, 2006. Topics will include updates on the Forest Study, Recreational Use Survey, Sedimentation Study and Consent Agreement Special Environmental Projects, and continued discussion of the Environmental Stewardship Workgroup recommendations.

Adjournment - Meeting Adjourned at 4:10 pm.

Patuxent Reservoirs Watershed Protection Group
Technical Advisory Committee Meeting

WSSC Bid and Training Room (LK121)

June 20, 2006
1:30 p.m. – 4:00 p.m.

AGENDA

Call To Order/Opening Remarks Chair - Overstreet

Administrative Business Chair - Overstreet

1. Approval of March 2006 meeting summary
2. Approval of October 2005 Policy Board meeting summary

Old Business

- Update on Forest Study/Recreational Survey 30 min
Anne Hairston-Strang
Ms. Hairston-Strang will discuss further results of the WSSC Forestry/Recreational study.
- Update on Sediment Study 15 min.
Sean Smith
Mr. Smith will discuss work to date on the reservoir sediment study and bathymetric survey of the reservoirs.
- Update on Reservoir/Watershed Models 15 min
Tim Rule
Mr. Rule will discuss work to date on the models for reservoir TMDL development.
- Update on Consent Decree 15 min
WSSC
Discussion will focus on work to date for the Consent Decree.
- Update on Earth Month Activities 15 min
Outreach Workgroup
The group will discuss Earth Month activity results

Continued discussion on WSSC Environmental Stewardship Workgroup 30 min
WSSC

Update on budget request for contract employee 5 min
WSSC

New Business

Set date for Policy Board October meeting 5 min

The date needs to be determined to set member calendars and make room
arrangements

Next Meeting-Topics and Date All

Adjournment Chair



Patuxent Reservoirs Watershed Protection Group
Technical Advisory Committee

Meeting Summary of June 20, 2006

TAC Members in Attendance: Meosotis Curtis (MCDEP), Gul Behsudi (alternate, MDE), Mohammad Habibian (WSSC), Katherine Nelson (MNCP&PC), Jerry Maldonado (PGDER), Bert Nixon (HCHD), Susan Overstreet (HCDPZ), Dave Plummer (MSD), Howard Saltzman (HCDPW)

TAC Members Absent: Sharon Mariaca (HSCD), John McCoy (DNR), Buddy Loffler (MDA), Paul Meyer (PGHD), Mark Symborski (alternate, MNCP&PC), Stan Wong (MCDPS)

Other Attendees: Tobias Kagan (WSSC), Anne Hairston-Strang (MD/DNR/Forest Service), Robert Felt (MD/DNR/Forest Service), Sean Smith (MDE), Angela Morales (HCDPW)

Jim Neustadt (WSSC), the Director of the new Communication and Community Relation Office, introduced himself and gave an update on the new office. The office will include reassigned WSSC staff and newly hired staff. Sandy August, formally of the Environmental Group, has been transferred to the new office. Her role with the TAC Public Outreach Workgroup has not been finalized and will be discussed over the next few months after Ms. Dawn Forsythe, the new Outreach Manager, is established in her new position.

Administrative Business:

March 20, 2006 meeting summary approved

November 2005 Policy Board meeting summary approved

Old Business:

Forest Study/Recreational Survey: Ms. Hairston-Strang (DNR) gave an updated presentation on the progress of the study to date. She discussed the existing conditions of the WSSC forested area around the reservoirs:

1. WSSC lands have proportionally more forest relative to the remainder of the watershed
2. Overstory healthy with diversity of species (lots of poplar)
3. Dense conditions in 1/3 of stands (could benefit from thinning)
4. Planted pine stands particularly dense
5. Limited tree regeneration of canopy species

6. Understory has pervasive invasive species in Rocky Gorge and is present in about half of the stands in Triadelphia
7. Controlling deer population critical for forest health and capacity to regenerate
8. Control of invasive species will be important before and after stand thinning.

A draft of the forest study report will be provided to the TAC for review. Ms Hairston-Strang is especially interested in comments on any proposed uses of herbicides and thinning.

She further discussed the recreational survey results to date.

1. The draft report may be out in about six weeks
2. Based on a preliminary analysis, there is a lot of support from rate payers for recreation and they do support a small increase in user fees to pay for maintenance
3. Most of the second round of mailings has been done.

Sediment Study: Sean Smith (DNR) presented the study to date:

1. Nearing the end of Phase 1
 - a. Completion of bathymetric data, current and pre-dam
 - b. Calculation of storage capacity and draw down curves
 - c. Contour map of current conditions
2. Final report for Phase 1 due June 30.
3. Phase 2 (comparison of historical conditions) and 3 (delta coring and analysis) are still ongoing with final reports expected in Spring 2007 and Fall 2006, respectively.

Mr. Smith also gave an update for his ongoing study of a pond and stream system in the Triadelphia watershed, which will generate sediment yield estimates.

Modeling – Mr. Rule (MDE) was not present, no report.

WSSC Environmental Stewardship Workgroup – Ms. Barkley (WSSC) answered questions concerning the outcome of the workgroup recommendations. The final recommendations, which were the same as those presented to the TAC in March, were sent to the WSSC Executive Steering Committee. To date, all property management of the WSSC land around the reservoirs has been transferred to a reestablished Watershed Management group under the Production Team. Staff transferred to this group includes a watershed manager, maintenance crew, and three guards, whose titles and job descriptions will change. This group will be responsible for following through on the workgroup recommendations for public access and land management. A one year pilot

program for hiking on the horse trails will be established and evaluated for impact. A comprehensive data gathering effort will be established to gather data on users of the reservoir property. Responsibility for the public outreach recommendations will be given to the new Communication and Community Relation Office.

WSSC Consent Decree/Supplemental Environmental Program (SEP) – Dr. Habibian (WSSC) brought the group up to date on the status of the Decree:

1. The SEP requires WSSC to acquire land in the Patuxent Reservoirs Watershed for water supply protection.
2. The Commission may not spend less than \$3,290,000 and must be completed within five years from date of EPA approval
3. WSSC will focus on properties that are:
 - a. Immediately adjacent to existing WSSC property
 - b. Border Rocky Gorge Reservoir at the intake
 - c. Adjacent to narrow reservoir buffer areas

Public Outreach – Sandy August (WSSC) was unable to attend, but provided a written report on the Earth Month events.

Ms. Curtis informed the TAC that Ms. Davis is no longer with Montgomery County and she will not be replaced on the outreach committee. However, Montgomery County will continue to support Earth Month activities in Montgomery County.

The TAC discussed that the loss of staff on the Public Outreach Workgroup will place more responsibility for outreach on WSSC. However, there is a concern that the focus on outreach in the reservoir will be lost in the new Communication and Community Relation Office. Therefore, the TAC decided to write a letter to Mr. Neustadt informing him about the TAC outreach efforts in the watershed and expressing their wish to work with the Office to continue this outreach effort.

Contract Employee Status – Dr. Habibian brought the committee up to date on the progress of the initiative. The WSSC budget will hopefully be approved by the Commissioners on June 21. Rather than hiring a contract employee, WSSC will hire a consultant. Dr. Habibian sent out requests for proposals to meet the requirements of the TAC job description. Two proposals have been received and interviews will start in the near future.

October Policy Board Meeting: Tentative agenda for the October meeting:

1. Overview of TAC activities
2. Consent Decree Special Environmental Projects update
3. Montgomery County's riparian buffer pilot project
4. Forest Study and Recreational Survey results
5. Yearly outreach activities

Each agency representative was asked to contact their respective Policy Board member about availability for a meeting in the first two weeks of October.

New Business: No new business

Next Meeting: September 12, 2006

Topics:

1. Update on watershed management group activities
2. Update on new Communication and Community Relation Office plans for public outreach in reservoir watershed
3. Discussion on Policy Board presentation
4. Update from MDE on modeling effort
5. Update on Montgomery County pilot program for riparian buffer planting

Adjournment - Meeting Adjourned at 4:00 pm.

Patuxent Reservoirs Watershed Protection Group
Technical Advisory Committee Meeting

WSSC Bid and Training Room (LK121)

September 12, 2006

1:30 p.m. – 4:00 p.m.

AGENDA

Call To Order/Opening Remarks

Chair - Overstreet

Administrative Business

Chair - Overstreet

Approval of June 2006 meeting summary

Old Business

Update on Reservoir/Watershed Models

Mr. Rule
25 min

Mr. Rule will discuss work to date on the models for reservoir TMDL development.

Update on Watershed Staff Reorganization

Mr. Benton
15 min

Mr. Benton will discuss the new organization and duties

Update on Public Outreach Reorganization

Ms. Forsythe/Ms. August
15 min

Ms. Forsyth and Ms. August will discuss the new organization and responsibilities

Introduction of Contract Employees

Dr. Habibian
15 min

Dr. Habibian will introduce the new contract employees as requested by the Policy Board and discuss their role with the TAC

New Business

Montgomery County Riparian Buffer Pilot Program Ms. Nelson
15 min

Ms. Nelson will discuss the County's riparian buffer project along Reddy Branch
Stream Valley Park

Annual Report All
25 min

The group will discuss report content and timeline for submittals

Policy Board Presentation All
25 min

The group will discuss the TAC presentation to the Policy Board and the
November agenda

Meeting Date: November 9, 2006

Time: 1:30 to 2:30

Location: WSSC Auditorium (lobby level)

Next Meeting-Topics and Date All

Adjournment Chair



Patuxent Reservoirs Watershed Protection Group
Technical Advisory Committee

Meeting Summary of September 12, 2006

TAC Members in Attendance: Meosotis Curtis (MCDEP), Gul Behsudi (alternate, MDE), Mohammad Habibian (WSSC), Katherine Nelson (MNCPPC), Bert Nixon (HCHD), Susan Overstreet (HCDPZ), Dave Plummer (MSD), Howard Saltzman (HCDPW), Stan Wong (MCDPS)

TAC Members Absent: Sharon Mariaca (HSCD), John McCoy (DNR), Paul Meyer (PGHD), Mark Symborski (alternate, MNCPPC), Jerry Maldonado (PGDER)

Other Attendees: Tobias Kagan (WSSC), Robert Felt (DNR/Forest Service), Sean Smith (MDE), Angela Morales (HCDPW), Sandy August (WSSC), Dawn Forsythe (WSSC), Frank Wise (PGHD), Ross Mandel (ICPRB), Tim Rule (MDE), Alfred Titus-Glover (PGDER), Kristal Lull McCormick (HSCD), Brenda Morgan (Versar), Carrie Capuco (Capuco Consulting Services, Inc.)

Administrative Business:

June 2006 meeting summary approved with 2 corrections:

- Frank Wise (PGCHD) was in attendance
- WSSC Consent Decree/Supplemental Environmental Program (SEP) requires WSSC to acquire land or land rights (i.e., easements)

Old Business:

- 1.0 **Forest Study:** Ms. Overstreet reported that she invited Ms. Hairston-Strang (DNR) to provide an update presentation. Ms. Hairston-Strang declined the invitation but stated that DNR intended to have a draft report available near the end of the month once additional surveys are obtained.
- 2.0 **Public Outreach Reorganization:** Ms. Forsythe (WSSC) introduced herself and offered an overview of the proposed outreach plans to be funded by WSSC. She provided a brief overview of her background – including experience with the Tahoe California water commission and numerous for-profit entities. She then explained her beliefs on the importance of education and outreach – emphasizing that WSSC will now be able to coordinate consistent TAC messages to both the WSSC customer base and the neighboring communities. Ms. Forsyth indicated that outreach needs are currently being

identified and encouraged TAC members to contact her directly with ideas. Discussion followed her presentation. Items addressed included further clarification of Ms. Forsyth's outreach experience and reiteration of her commitment to reach out beyond the WSSC customer base. Ms. Forsyth was encouraged to review the priority resource tables the TAC has developed. Ms. August emphasized that support in Howard County will not cease and encouraged the Outreach Committee to consider a meeting in the fall.

Discussion then turned to the Campfire scheduled for Friday October 13, 2006 at the Brighton Dam Recreational Area from 6:30 – 8:30. She distributed flyers and encouraged all participants to invite potential attendees.

- 3.0 **Reservoir/Watershed Models:** Mr. Rule (MDE) and Mr. Mandel (ICPRB) presented jointly on the status of the watershed model. They offered an initial analysis of what the end points of the watershed total maximum daily load (TMDL) might include – Chlorophyll *a*, dissolved oxygen (DO), and hypoxia conditions. Mr. Rule emphasized that the team is working to quantify a link between phosphorous loads and chlorophyll levels. He indicated that the modeling framework is based on the version developed by Tetra-Tech previously – using a simulation period from 1998 through 2003. He also indicated that the model will apply consolidated tributary segmentation, nutrient mass balance on cropland, and scour. These elements will make the model consistent with other state models.

Mr. Rule indicated that a working model should be available this fall, with final submittal to the U.S. Environmental Protection Agency (EPA) planned for August of 2007. Mr. Rule offered the TAC an opportunity to review the document before submittal in August. Discussion then turned to the Gunpowder model which is very similar to the Patuxent Reservoirs model. Mr. Rule agreed to provide the TAC with the Gunpowder model in advance of the Patuxent Reservoirs model so comparisons can be made.

- 4.0 **Watershed Staff Reorganization:** Mr. Benton (WSSC) was not present. No report.
- 5.0 **Introduction of Contract Employees:** Dr. Habibian (WSSC) introduced the consultants hired to provide TAC support. He reported that of the proposals submitted the best technical and cost offering was provided by Versar. He then introduced Ms. Morgan (Versar) who will be providing technical assistance in addition to support from other Versar staff, and Ms. Capuco (CCS). Both consultants provided a brief description of their past experience.

Dr. Habibian then clarified that Mr. Kagan, Ms. August, and he would still support the TAC on behalf of WSSC, but emphasized that the consultants were there to support the TAC in grant requests and administration. Discussion then turned to sustaining the consultants for a sufficient period of time to ensure success. Dr. Habibian assured the TAC that he would request funding for a second year of their service and could adjust their workload to maximize the benefits to the TAC, but that the grant recipients would have to administer their own funds as WSSC could not.

New Business:

- 1.0 **Montgomery County Riparian Buffer Pilot Program:** Ms. Nelson (MNCPPC) provided information on the demonstration project proposed for Reddy Branch. She indicated that it is a good location for a pilot program because (1) site preparation has already been done by encroaching landowners, and (2) the county stream Protection Strategy identified it as a poor water quality and poor habitat stream. In addition the site is highly eroded and the stream is highly eroded. MNCPPC has already contacted an encroaching adjacent landowner (agricultural) and stopped the active farming and reseeded the damaged area. In addition agreements have been made with other adjacent property owners to limit their maintenance to mowing.

Ms. Nelson indicated that the total cost for the pilot would be approximately \$300,000 and that MNCPPC had identified \$150,000 that it could contribute if necessary. During discussion it was explained that the planting cost is so high because large tree stock and deer protection are considered essential to the project for its success.

Discussion then turned to the viability of this pilot as a grant template for the TAC. It was agreed that there are adequate volunteer activities and resources to incorporate an outreach component to any grant application. It was then agreed that this should be the priority of the consultants -- to obtain funding for this pilot program. Additional discussion ensued where Baltimore County was offered as a good example program

Discussion then turned to Howard County opportunities for pilot projects. Discussion concerned whether the ratio of public to private land would be a factor in the success of grant requests. It was agreed that Howard County merited the development of a second grant template for private land buffer plantings. In addition, Mr. Saltzman offered to identify public lands suitable for buffer planting so that grant applications can be prepared for Howard County as well.

- 2.0 **Annual Report Ms.** Capuco explained that all submissions for the annual report have been received and that a draft will be provided for the Chair and Co-Chair to review on the 14th. Ms. Capuco then explained that she has developed a list of items for possible inclusion in the Technical Supplement and that the list would be provided to the TAC for comment. Ms. Overstreet clarified that the Annual Report and Technical Supplement could be used for grant applications. Discussion then turned to the time period for reviewing the Annual Report and the possibility of adding an update on Reddy Branch.
- 3.0 **Policy Board Presentation** Ms. Overstreet then confirmed that the Policy Board meeting is scheduled for November 9. The Power Point presentation will be circulated for updating.

Next Meeting January 9, 2007

Topics:

6. Update on watershed management group activities
7. Update from MDE on modeling effort
8. Update on Montgomery County pilot program for riparian buffer planting
9. Update on Forestry Study
10. Update on Outreach Activities

Adjournment - Meeting Adjourned at 4:00 pm

APPENDIX 4
2006 CORRESPONDENCE



DEPARTMENT OF ENVIRONMENTAL PROTECTION

Douglas M. Duncan
County Executive

James A. Caldwell
Director

February 10, 2005

Carla Reid Joyner
Interim General Manager
Washington Suburban Sanitary Commission
14501 Sweitzer Lane
Laurel, MD 20707

Dear Ms. Joyner

I am writing to you about some of the concerns mentioned in the WSSC's most recent comment letter on the Intercounty Connector Corridor 2 which you sent to SHA on February 2, 2005. The letter refers to the Patuxent reservoirs as a "practically nonrenewable resource", and identifies protection of the reservoirs as a "strategic must." Further, in the letter you mention the work of the partnership of local agencies that has called for a protection program for the reservoirs as further evidence of the importance of these reservoirs to our community.

I greatly appreciate your recognition of the hard work of the Patuxent Reservoirs Watershed Protection Group, and of the importance of the watershed and reservoirs management goals and priorities we have established to protect the drinking water resource that serves the citizens of Montgomery and Prince George's Counties.

Given your recognition of our efforts, I am again requesting your assistance in meeting the Patuxent Reservoirs Watershed Protection Group's highest priority recommendation--funding in the FY2006 WSSC operating budget to directly support activities identified to further protect this valuable water resource. At the October Policy Board meeting, all of the members of the Board except WSSC recommended the hiring of two full-time staff, one for technical support and one for public outreach, along with seed money of \$500,000 for reservoirs protection projects. In addition, at that Policy Board meeting, I agreed to convey support for this funding request at the Bi-County Council hearings on the WSSC operating budget. I intend to follow through with a letter in the near future. The support of WSSC would be of great value to show commitment of all involved parties to long term reservoir preservation. Without this funding, managing and protecting our regional drinking water supply reservoirs cannot be maintained in a sustainable manner.



Office of the Director

255 Rockville Pike, Suite 120 • Rockville, Maryland 20850-2589 • 240/777-7770, FAX 240/777-7765

p. 3

301-208-8057

WSSC Jan 04 2007 1:22PM

Carla Reid Joyner
February 10, 2005
Page 2

I would like to discuss the details for this funding request in the WSSC budget to assure the continued success of our local agency partnership in protecting the reservoirs and their watershed. Please contact me at 240-777-7700 to discuss our next steps on these efforts.

Sincerely,


James A. Caldwell, Director

cc: Patuxent Reservoirs Watershed Protection Policy Board
Patuxent Reservoirs Technical Advisory Committee



WASHINGTON SUBURBAN SANITARY COMMISSION

14501 Sweltzer Lane • Laurel, Maryland 20707-5902

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GENERAL MANAGER
Carla Reid Joyner

INTERIM
DEPUTY GENERAL MANAGER
Thomas C. Treber

February 25, 2005

Mr. James A. Caldwell, Director
Department of Environmental Protection
255 Rockville Pike, Suite 120
Rockville, MD 20850-2589

Dear Mr. Caldwell:

Thank you for your letter of February 10, 2005 regarding inclusion in our Fiscal Year 2008 budget funds to cover hiring of two new staff and \$500,000 seed money to assist the implementation of high priorities in the Patuxent watershed as identified by the Patuxent Reservoirs Watershed Protection Group.

Protection of the Patuxent reservoirs remains an important issue for the Washington Suburban Sanitary Commission (WSSC). We also know that the reservoir protection requires much effort in the watershed. Given this, we greatly appreciate the interest and efforts of our partners for protecting the Patuxent watershed and our reservoirs and have committed two staff on a part-time basis to provide support for the outreach and administrative services that the relationship needs.

As you know, WSSC does not contribute to contamination that impacts our reservoirs. Nevertheless, as stated in our letter of September 20, 2004, we are willing to share expenses between WSSC, Howard and Montgomery Counties for outsourcing additional technical and administrative services that may be required but are not achievable given the partnership's current manpower resources. Also, some limited funds may become available as part of our negotiation with the U.S. Environmental Protection Agency on the Sanitary Sewer Overflows issue. Furthermore, we included in our FY'08 proposed budget a note in reference to the partnership request. The notes state the following:

"The Patuxent Reservoirs Watershed Protection Program Policy Board recommended at their October 19, 2004 meeting that WSSC increase staffing and funding by two dedicated full-time workyears and \$500,000. The additional staff would provide public outreach technical assistance, and grant writing and management support. The \$500,000 would accelerate implementation for the protection of the reservoir/water supply priority resource. The \$500,000 would be spent as directed by

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P. 1

301-206-8057

WSSC Jan 04 2007 1:21PM

Mr. James A. Caldwell, Director
February 25, 2005
Page 2

the Board, which consists of representatives of Montgomery, Prince George's, and Howard Counties, Howard Soil Conservation District, Montgomery Soil Conservation District, Maryland-National Capital Park and Planning Commission, and the WSSC. There are no unallocated funds available for this expanded activity. Funds for additional manpower beyond the currently dedicated two part-time positions are not included either. The guiding principle established by the Clean Water Act and implemented through the Total Maximum Daily Limit (TMDL) process is that clean-up efforts and expenses are the responsibility of those who generate pollution and not of impacted downstream entities."

Finally, we would be happy to meet and discuss this issue further as you have requested. Again, thank you for your interest in and support for the Patuxent Reservoirs Watershed Protection Program.

Sincerely,

ORIGINAL SIGNED

Carla Reid Joyner
Interim General Manager

MTH/as

cc: Patuxent Reservoirs Watershed Protection Policy Board
Patuxent Reservoirs Technical Advisory Committee

bcc: Interim General Manager (Joyner) (G-0036-05)
Interim Deputy General Manager (Traber)
Engineering and Construction Team (Shagogue)
Production Group (Heikinen)
Public Communications Office (Kalinowski)
Environmental Group (Habibian/Kagan)



WASHINGTON SUBURBAN SANITARY COMMISSION

14501 Sweitzer Lane • Laurel, Maryland 20707-5902

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GENERAL MANAGER
Andrew D. Brunhart

DEPUTY GENERAL MANAGER
Carla Reid Joyner

March 16, 2006

Mr. James A. Caldwell, Director
Montgomery County Department of Environmental Protection
255 Rockville Pike, Suite 120
Rockville, MD 20850

Dear Mr. Caldwell:

Thank you for your letter of March 10, 2006, regarding the Washington Suburban Sanitary Commission's (WSSC) funding of a contract employee for a two-year trial period to pursue grant funding and provide support for efforts related to the protection of the Patuxent reservoirs watershed. We appreciate your continued interest in and focus on the needs and means for our collective work in this area.

We have included in our FY'07 budget the necessary funding for hiring the contract employee as I committed to at the November 2005 Policy Board meeting. We will soon initiate the recruitment for the position with a goal of having someone on board in the July 2006 timeframe.

We will share this information with members of the Technical Advisory Committee at its next meeting on March 21, 2006, and will discuss how the recruitment can be expedited. Again, thank you for your interest and support for protecting the Patuxent watershed and reservoirs.

Sincerely,

Andrew D. Brunhart
General Manager

cc: The Honorable James Robey, Howard County Executive
Members of the Patuxent Reservoirs Watershed Protection Policy Board
Patuxent Reservoirs Watershed Technical Advisory Committee

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Policy Board

William Barnes.....Howard Soil Conservation District
 Andrew BrunhartWashington Suburban Sanitary Commission
 James CaldwellMontgomery County
 Trudye Morgan JohnsonMaryland National Capital Park and Planning Commission
 George LechluderMontgomery Soil Conservation District
 James N. Robey.....Howard County
 Donna Wilson.....Prince George's County

June 30, 2006

Jim Neustadt, Director
 Communication and Community Relation Office
 Washington Suburban Sanitary Commission
 14501 Sweitzer Lane
 Laurel, Maryland 20707-5902

Dear Mr. Neustadt:

Thank you for attending the Patuxent Reservoirs Watershed Technical Advisory Committee (TAC) meeting on June 20 to discuss the new Communication and Community Relation Office. The TAC recognizes the importance of public outreach and education to enhance stewardship among watershed residents and resource users. The TAC has been engaged in public outreach and education since its inception in 1996, with activities such as our annual Earth Month events, support for Green Schools and annual fall campfire program. Lead agency support from WSSC has been critical to the success of these events.

The TAC has defined public awareness and stewardship as one of our six watershed priority resources and has established goals and implementation items for increasing public awareness and support among watershed residents and resource users. Enclosed is the page from our Priority Resources Chart that lists these specific goals and implementation items.

At its annual meeting in 2004, the Policy Board approved the TAC's recommendation for additional support in the WSSC budget for reservoirs watershed public outreach. This included a request for staff dedicated specifically to meet the goals and implementation items shown in the attached table. The TAC is pleased that WSSC recognizes and has elevated the importance of outreach with the creation of your new Office and is looking forward to working with you and your staff. However, the TAC is unclear about the proposed level of public outreach support that can be expected from your office.

Technical Advisory Committee

Mark Symborski, M-NCPPC.....Gul Behsudi, MDE.....Meosotis Curtis, MCDEP
 Mohammad Habibian, WSSC.....Buddy Loffler, MDA.....John McCoy, DNR
 Sharon Mariaca, HSCD.....Jerry Maldonado, PGDER.....Paul Meyer, PGDH
 Bert Nixon, HCHD.....Susan Overstreet, HCDPZ.....David Plummer, MSCD
 Howard Saltzman, HCDPW.....Stan Wong, MCDPS

Mr. Jim Neustadt

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The State of Maryland is currently developing maximum allowable pollutant loads for the reservoirs to protect their drinking water quality. Success in controlling pollutant loads to prevent increases in water treatment costs will require heightened environmental awareness and active stewardship by private property owners in the reservoirs watershed. Accordingly, it is important that the momentum achieved through the TAC's outreach programs not be adversely affected during this period of administrative transition.

We hope you will be able to attend our next meeting on September 20 to provide an update on your Office's new work program and to continue discussion of outreach priorities for the reservoirs watershed. Thank you for your consideration in this matter.

Sincerely,

Susan R. OverstreetTAC Chair

Enclosure

cc: Patuxent Reservoirs Watershed Technical Advisory Committee

List of Acronyms

DNR	DNR - Maryland Department Of Natural Resources
DEP	Montgomery County Department Of Environmental Protection
DO	Dissolved Oxygen
GIS	Geographic Information System
HSCD	Howard Soil Conservation District
ICPRB	Interstate Commission On The Potomac River Basin
MDE	Maryland Department Of The Environment
MGS	Maryland Geological Survey
MSCD	Montgomery Soil Conservation District
SOD	Sediment Oxygen Demand
TAC	Technical Advisory Committee
TMDL	Total Maximum Daily Loads
TOC	Total Organic Carbon
WSSC	Washington Suburban Sanitary Commission