**METROPOLITAN WASHINGTON** 

**COUNCIL OF GOVERNMENTS** 

#### Local governments working together for a better metropolitan region

May 15, 2006

District of Columbia		
Bowie		
College Park	To:	Chesapeake Bay Policy Committee Members
Frederick County		
Gaithersburg	Form:	Uwe H. Kirste, Chair UHK
Greenbelt		Water Resources Technical Committee
Montgomery County		
Prince George's County	Re:	MWCOG Water Resources Department Budget
Rockville	RC.	WWEOO Water Resources Department Dudget
Takoma Park	A a Ch	simula of the Water Descurees Technical Committee (WDTC). I would like to
Alexandria		airman of the Water Resources Technical Committee (WRTC), I would like to
Arlington County		lly endorse the proposed budget for the Metropolitan Washington Council of
Fairfax		nments Water Resources Department. The WRTC reviewed the proposed work
Fairfax County		Im and budget at its meeting on May 12, 2006 and voted to forward it to the
Falls Church	CBPC	with a recommendation for approval.
Loudoun County		
Manassas	Ted G	raham and his staff continue to effectively disseminate and coordinate the
Manassas Park	comple	ex Chesapeake Bay regulatory information for jurisdictions in the greater
Prince William County	-	politan Washington D.C. area. Maryland, District and Virginia jurisdictional
	-	entatives from point and non-point sectors regularly attend WRTC information
	-	ns and provide valuable feedback to the program development process.
	5655101	is the provide valuable recuback to the program development process.
	In add	ition, the department provides opportunities to showcase alternative technologies.
		example, during FY 2006, Tanya Spano convened a highly acclaimed workshop
		stewater treatment technology in partnership with the Water Environment
		rch Foundation. These types of events increase awareness and create higher
	expect	ations for jurisdictions to accept new ideas.
	Distrib	pution of information is also a key element of the program. It helps members
		y consistent and reliable technical and policy considerations for use in the local
	•	
	uecisic	on-making process.
	Please	contact me if the committee needs to answer any specific questions, or can be of
		r assistance in this mater.

cc: Ted Graham – Director, MWCOG Water Resources Program

Metropolitan Washington Council of Governments

# **Environmental Programs**

Draft Final May 1, 2006

Water Resources FY 2007 Work Program and Budget

July 1, 2006 to June 30, 2007

DRAFT FINAL

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#### Environmental Programs under COG Board of Directors: Water Resources Program

**General** – Ambitious water quality goals and economic realities two of the most dominant forces influencing water resources programs over the next several years. Of the many "commitments" of the Chesapeake 2000 agreement (C2K), the one with perhaps the greatest potential to affect local governments and utilities is the commitment to meet and maintain water quality standards by 2010. When coupled with the hundreds of listed "impaired waterbodies," this represents a huge financial burden. Much of COG's regional water resources program is devoted to ensuring that the best possible science and most sensible policies underlie any regulatory or nonregulatory program requirements. Accordingly, COG's program is divided into five broad areas: (1) Regional Water Policies and Programs; (2) Integrated Monitoring and Modeling; (3) Urban Watershed Management; (4) Water Supply and Drought Management; and (5) Program Management and Development.

**Regional Water Policies and Programs** – This part of the work program is designed to develop and advocate for policy and technical positions ensuring that local government and utility interests are appropriately reflected. Through their wastewater and stormwater programs, local governments and utilities shoulder a large burden in meeting water quality goals. Thus direct local participation is critical. COG will continue to work with COG's members and state and federal agencies on such diverse topics as: the adoption of water quality standards; implementing regulatory requirements; effectively upgrading and applying the Bay Program's Water Quality and Watershed Models; and ensuring an equitable amount of state and federal financial support. The work program is specifically designed to ensure that COG's members keep abreast of and help shape the programs and policies related to the Chesapeake Bay and the Potomac watersheds. The Integrated Monitoring and Modeling component of the work program is an integral supporting part of the overall water quality management effort.

**Urban Watershed Management** – COG's urban watershed program for FY 2007 is designed to assist its members address a wide range of increasingly important technical and policy issues. The principle focus will address: (1) assisting jurisdictions in the COG region with setting up a tracking system for use in fulfilling their Tributary Strategy obligations and future TMDL requirements; (2) integrating urban stormwater programs, as appropriate, into the Tributary Strategy Implementation efforts; (3) defining the relationship between urban stormwater programs, TMDLs and MS4 permit conditions; (4) increasing concern with sediment impairment of urban streams; (5) stream ecology, reflecting member needs and COG staff expertise in urban stream assessment and restoration; and (6) the increasing interest in regional resource assessment including urban forestry analysis and management and the use of remote sensing imagery.

**Water Supply and Drought Management** – Beginning with the 1999 drought, water supply has played an increasingly important role in the COG work program. This aspect of the work program provides technical and logistical support to the Water Supply Task Force (WSTF) including support as required during drought conditions to the Drought Coordination Committee. It also provides for the continued implementation of the Wise Water Use Program and exercise of the 2003 Water Supply Emergency Plan.

**Water Resource Program Management and Development** – COG's water resources management staff spend substantial amounts of their time on technical and policy work as distinct from purely management tasks. Accordingly, the management section of the FY 2006 budget reflects those activities that are purely management in nature. There are two project areas: (1) COG Board and Member Support; and (2) Program and Budget Development.

#### Environmental Programs under COG Board of Directors: Water Resources Program *Regional Water Quality Policies and Programs*

**General** - By signing the Chesapeake 2000 agreement (C2K) in June 2000, the Bay Program's Executive Council pledged to attain water quality standards in the Bay and its tidal tributaries by 2010. C2K commits to controlling sediment as well as nutrients. New criteria, developed in 2003, have become new water quality standards thus providing a regulatory foundation for the Bay Program. In addition, the EPA/Chesapeake Bay Program is proposing new criteria for chlorophyll *a* for tidal waters. In April 2003, based on the new criteria, the Bay Program issued nutrient and sediment load caps for each major tributary. These limits are the basis for new Tributary Strategies. Implementation plans for these strategies are expected to begin having major implications for local budgets and land use decisions in FY 2007. The implication of a recent court decision regarding 'annual versus daily loads', and the lack of a clear and reasonable enforcement policy by EPA and the states, could both result in the need to install significantly more expensive nitrogen removal facilities at local wastewater plants. Funding gaps remain a serious issue. Passage of the "flush tax' in Maryland provides a financing plan for wastewater upgrades in Maryland and there has been action n in Virginia to revitalize the Water Quality Improvement Fund. However, there are still substantial funding gaps being addressed in part by a committee has charged with developing recommendations for a Chesapeake Regional other standards, that will also have local costs and program implications. To address these and ensure active participation in the regional process, the "Policies and Programs" part of COG's FY 2007 water resources work program is divided into two broad categories: (A) Committee Support; and (B) Technical Analyses. A separate element that provides critical analytical support is "Integrated Monitoring and Modeling."

**Committee Support** – In FY 2007, many Bay Program-related activities will produce critical policy-level decisions and regulatory actions by federal and state agencies. These include: fleshing out implementation plans for the new Tributary Strategies including developing "offset" policies for accommodating growth; application of innovative NPDES permitting policies; assessing the implications of the recent court decision on TMDLs; and pursuing funding support. These will have long-term impacts on local stormwater and wastewater programs and may also affect local development policies. COG's Chesapeake Bay Policy Committee (CBPC), with input from the Water Resources Technical Committee (WRTC), is the focal point for discussing policy-level issues and shaping positions at COG. This is critical to the COG staff mission of effectively representing the COG member perspectives at Bay Program and other forums.

There are three distinct "committee support" elements: (1) Water Resources Policies: CBPC Support; (2) Water Resources Programs: WRTC Support; and (3) Special Workshops and Seminars to be tailored to the needs of the CBPC and/or the WRTC.

**Technical Analyses** – Several of the technical areas of prior years have been consolidated into three distinct "technical analysis" work elements: (1) Water Quality Requirements: Strategies, Standards, TMDLs & Permitting; (2) Water Program Funding: Costs, Cost Impacts & Funding Strategies; and (3) Regional Wastewater Flow Forecast Model. The first encompasses the water quality requirements and the program elements needed to meet those requirements. The second addresses the very real concerns of covering the costs of all the identified needs. The third is a modeling tool that will be particularly helpful in developing programs and policies related to load cap management.

Water Resources Program		
Regional Water Quality Policies and Programs		
<ul> <li>Policy Support</li> </ul>		
A.1 - Water Resources Policies; Chesape	eake Bay Policy Committee (CBPC) Support	
<u>Project Description/Objectives:</u> Significant policy issues will emerge in FY 2007. Areas where key policy	Budget: \$190,000 Regional Water Fund 10,000 COG Local Funds	
decisions are needed include: fleshing out of Implementation Plans for	\$200,000 Total	
the Tributary Strategies; funding and cost sharing; preparation for a		
Bay-wide TMDL in the wake of the newly adopted water quality		
standards; implementation of permitting guidelines, including assessing	Committee Oversight:	
the implications of a recent TMDL court decision; and looking at	Chesapeake Bay Policy Committee COG Board of Directors	
Growth-driven "offset" policies. In each case, COG staff will prepare		
policy options for review by the WRTC and consideration by the CBPC. Regular presentations to the COG Board are anticipated with Board		
adoption of policy positions as appropriate.	Project Managers: Steve Bieber, Karl Berger, Ted Graham	
This task also provides for staff participation in various Bay Program committees and staff support to the CBPC, which will meet on a bi- monthly basis throughout the year. In addition to policy guidance to the COG Board, the committee will focus on education and outreach issues, working with the Bay Program and other partners on informing citizens of their role in water quality efforts. The CBPC and COG staff will work with COG's Public Information Officers to better explain the efforts that local governments have made and are continuing to make to improve water quality.	Staff Resources: Tanya Spano, Stuart Freudberg	
Major Products:		
<ul> <li>Policy recommendations on Tributary Strategy Implementation (on</li> </ul>	going)	
<ul> <li>Special briefing/worksession on policy options (e.g., funding, offsets and permitting) as appropriate (ongoing)</li> </ul>		
Presentations and briefing materials for CBPC members and other elected officials (ongoing)		
<ul> <li>Water quality management presentations to the COG Board (estimated bi-monthly)</li> </ul>		
Staff six Chesapeake Bay Policy Committee meetings (bi-monthly)		
<ul> <li>Staff participation in various Bay Program committees, workgroups and task forces (ongoing)</li> </ul>		

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Water Resources Program		
Regional Water Quality Policies and Programs		
<ul> <li>Technical Analysis</li> </ul>		
,	r Resources Technical Committee (WRTC) Support	
Project Description/Objectives:	Budget: \$ 110,000 Regional Water Fund	
The WRTC is the lead technical resource to the CBPC on all issues related to	\$ 10,000 Regional Water Fund \$ 10,000 COG Local Funds	
regional water resources. COG staff support to this committee entails	\$ <u>120,000</u> Total	
evaluation and technical analysis of regulations, policies and other initiatives	\$ 120,000 Total	
that affect or may affect COG member wastewater, stormwater and related		
water resource programs.		
	Committee Oversight:	
The technical support required to address specific water quality issues is	Water Resources Technical Committee	
outlined under other FY 2007 project write-ups. This project element supports		
COG staff's work to synthesize that data and analysis, make presentations to		
the WRTC membership, prepare technical summaries, and to prepare and		
submit technical comments on behalf of the WRTC. Expected topics will	<u>Project Manager</u> : Tanya Spano	
include: tributary strategy implementation progress for both point and nonpoint		
sectors; assessing proposed water quality criteria/standards; preparation for	Staff Resources: Tomlyne Malcolm, Steve Bieber, Karl Berger, Ted Graham	
the anticipated Bay-wide TMDL; wastewater and MS4 permitting and		
enforcement policies; funding needs for point, non-point and agricultural		
sectors; continued preparation for the anticipated 2007 Re-evaluation including		
the development of growth-driven "offset" policies and other regional water		
resources initiatives. In addition to coordination and integration of these many		
issues, emphasis will be given to specific wastewater and stormwater topics		
through special work sessions.		
This project element supports COC staff's work with the WIDTC to access the		
This project element supports COG staff's work with the WRTC to assess the cumulative impact of these initiatives, define the key technical issues, identify		
the potential impact to the COG region, and develop policy recommendations		
for the CBPC and the COG Board.		
Major Products:		
<ul> <li>Meetings of the WRTC (Bi-monthly), and conference calls/meetings of w</li> </ul>	ork groups (as required)	
<ul> <li>Technical work sessions or Ad-Hoc meetings of the WRTC (3 times per year) – focus on separate wastewater and stormwater issues</li> </ul>		
<ul> <li>Briefing material and presentations to the WRTC, and to the CBPC on behalf of the WRTC (Bi-monthly)</li> </ul>		
Technical analyses/comments and policy recommendations to the CBPC		
• Technical summaries and the impacts of tributary strategy implementati	on plans; water quality criteria/standards; permitting & enforcement; funding;	
and preparation for the analysis related to growth projections through 2030. Review of COG's proposed FY 2008 Regional Water Work Program & Budget		
(spring 2007)		

Budget:       \$ 50,000       Regional Water Fund         \$ 25,000       Potential EPA/WERF/State Grants         \$ 75,000       Total         Committee Oversight:       Water Resources Technical Committee
Duringt Managany Tanua Casas & Duing Durtin
<u>Project Manager</u> : Tanya Spano & Brian Rustia <u>Staff Resources</u> : Tomlyne Malcolm, Steve Bieber, Heidi Bonnaffon, Christine Howard, Karl Berger, Ted Graham
ilability of Nitrogen" (Fall/Winter/Spring 2006)

#### DRAFT FINAL

Resources Program		
Regional Water Quality Policies and Programs		
<ul> <li>Technical Analysis</li> </ul>		
,	ndards, Strategies, TMDLs & Permitting	
<ul> <li>B.1 - Water Quality Requirements: Star</li> <li>Project Description/Objectives:</li> <li>Regional water quality requirements are defined by: water quality standards,</li> <li>Tributary Strategies and related Implementation Plans, TMDLs and NPDES</li> <li>permitting policies. States with tidal waters have adopted Bay-driven water</li> <li>quality standards. EPA is also proposing new chlorophyll <i>a</i> criteria for Bay and</li> <li>tidal waters that would become state standards. These standards provide the</li> <li>regulatory basis for the sediment and nutrient load caps, and may ultimately</li> <li>lead to future refinements/revisions to the current Tributary Strategies, most</li> <li>likely in the anticipated 2007 Re-evaluation. In addition, EPA will also be</li> <li>continuing its national program to implement nutrient standards in non-tidal</li> <li>waters (e.g., streams and lakes) that are likely to have local impacts. EPA and</li> <li>the states are also still developing proposed enforcement policies to address</li> <li>'annual' nutrient load limits at WWTPs.</li> <li>COG staff will focus on these standards development issues and address their</li> <li>potential impact on wastewater and stormwater permits as well as implications</li> <li>for Potomac modeling and monitoring programs. In addition, staff will continue</li> <li>to address local concerns as several new permit options develop (e.g., annual</li> <li>load limits, watershed permits, etc.). Particular focus will be on the potential</li> <li>impact these initiatives will have on the Blue Plains WWTP, the region's other</li> </ul>	Description       Strategies, TMDLs & Permitting         Budget:       \$50,000       Regional Water Fund         Committee Oversight:       Water Resources Technical Committee         Regional Monitoring Subcommittee       Project Manager: Tanya Spano         Staff Resources: Tomlyne Malcolm, Steve Bieber, Stuart Freudberg, Ted Graham	
<ul> <li>wastewater plants and municipal stormwater programs. This information will be used to prepare key technical and policy recommendations.</li> <li>COG will focus on regional water quality monitoring needs in light of the proposed criteria, and modeling data needs in anticipation of the anticipated re-evaluation and model upgrades. COG will also evaluate technical issues such as the 'bioavailablility' of nitrogen and other boundary conditions at low treatment levels. COG staff will also work with the WRTC to ensure that the costs associated with implementing these standards (quantified under a separate project element) are incorporated into the states' Use Attainability Analyses (UAA) or other mechanisms.</li> <li>Major Products:         <ul> <li>Participate in federal and state agency meetings regarding: (1) Criteria/S of TMDL guidelines; and (4) Permitting policies (Ongoing)</li> <li>Provide formal comments on behalf of the region as appropriate (Ongoing)</li> <li>Provide briefing papers and presentations to WRTC and CBPC (Bi-month)</li> </ul> </li> </ul>		

Water Resources Program		
Regional Water Quality Policies and Programs		
✤ Technical Analysis		
B.2 – Chesapeake Bay Program Fundin	g: Costs, Cost Impacts & Funding Strategies	
Project Description/Objectives:	Budget: \$30,000 Regional Water Fund	
COG staff will support the CBPC participation on the Chesapeake Bay		
Finance Authority committee including helping to draft position statements, analyses, and recommendations for consideration by the		
COG Board. Efforts will continue to seek cost-share funding for the		
region.	Committee Oversight:	
	Water Resources Technical Committee	
COG staff will continue to work with the WRTC members to refine cost	Chesapeake Bay Policy Committee	
estimates for the region's wastewater treatment plants and stormwater		
management controls. Reflecting the final Tributary Strategies' load	Project Manager: Ted Graham, Tanya Spano	
allocation and pollution control technology commitments, and the	rioject rianager. Teu Granani, Tanya Spano	
potential state water quality standards.	Staff Resources: Tomlyne Malcolm, Steve Bieber, Karl Berger	
As appropriate, COG staff will work with the WRTC members to	, , , , ,	
quantify the potential utility rate and/or tax impacts of implementing		
these nutrient and sediment controls in addition to other Clean Water		
Act requirements (i.e., MS4 permits, CSO controls, SSO controls, etc.).		
Whenever possible, these efforts will also include coordination with		
other DEP staff and COG departments to address the associated cost,		
funding and pollution control assumptions for multi-media issues (air		
controls, land use planning, etc.). The information will be used to		
update the CBPC and COG Board on the potential financial and		
implications of implementing the Tributary Strategies as well as the new water quality standards. The information will also be used to provide		
formal comments and input to the states' water quality standards		
development processes and potential Use Attainability Analysis.		
Major Products:		
<ul> <li>Provide input to and comments on state/federal and Chesapeake Bay Financing Authority committee funding efforts (Ongoing)</li> </ul>		
Updated cost estimates and potential rate impacts for COG region (2nd Quarter)		
<ul> <li>Presentations on cost/funding/social impacts to WRTC, CBPC, and other COG committees (Ongoing)</li> </ul>		
<ul> <li>Summaries of potential WWTP and stormwater implementation ( required)</li> </ul>	costs and impacts to support potential funding/cost-share requests (As	

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Water Resources Program		
Chesapeake Bay and Potomac Water Quality Management		
<ul> <li>Planning and Monitoring</li> </ul>		
B.3 - Regional Wastewater Flow Forecast Model (RWFFM)		
<u>Project Description/Objectives</u> : COG staff will update the RWFFM model inputs for the COG region, beyond the Blue Plains Service Area, utilizing the latest demographic figures from COG's approved Cooperative Forecast. COG will also work with the individual WRTC members to gather and analyze additional	Budget: \$70,000 Regional Water Fund	
years of flow data for the major wastewater basins in the region and, as appropriate, update the base hydraulic flow and wastewater flow factors for each jurisdiction/agency. These and other updates will be used in the model to generate updated wastewater flow and nutrient load projections for the COG region.	<u>Committee Oversight</u> : Water Resources Technical Committee	
	Project Manager: Tanya Spano	
COG staff will work with the WRTC members to assess the potential impact of the flow projections to the region in terms of: nutrient load caps versus expected growth; wastewater plant capacity constraints; as	Staff Resources: Tomlyne Malcolm, Mukhtar Ibrahim, Summer Intern	
well as watershed permit and trading options. It will also serve as an		
important check on the flow and load information assumptions in the		
Tributary Strategies.		
Major Products:		
<ul> <li>Preliminary regional wastewater flow projections (based on Round 7.xx Cooperative Forecasts) (2<sup>nd</sup> Quarter)</li> </ul>		
<ul> <li>Analysis of projected population trends, wastewater flow figures, and related nutrient loads (3<sup>rd</sup> Quarter)</li> <li>Updated forecast model (incorporating revised wastewater flow factors &amp; hydraulic base flows for COG region) (4<sup>th</sup> Quarter)</li> </ul>		

#### COG FY 2007 Environmental Programs Work Program and Budget

#### Environmental Programs under COG Board of Directors: Water Resources Program Integrated Monitoring and Modeling

COG has served as the water quality monitoring coordinator and regional repository for water quality and wastewater data in the Washington metropolitan region for nearly two decades, a role formalized under the Blue Plains Intermunicipal Agreement of 1985. COG now serves as the repository for physical/chemical water quality data, hydro-meteorological data, and wastewater loadings for the COG region, as produced by federal, state, and local government agencies. Data exists for 99 stations on the mainstem of the Potomac River and the mouths of its tributaries (Point of Rocks to Point Lookout), and 46 stations in the Anacostia watershed. More than 33 wastewater treatment plants also send their monthly discharge monitoring reports (DMRs) and monthly operating reports to COG. COG supplements this data with flow gage data from the USGS and meteorological data from the National Weather Service.

Through analysis of data and modeling, COG can participate in regional planning studies to best address water quality issues in the near and longterm. There are three main elements under the Planning and Monitoring Program: the Regional Monitoring Program, the Chain Bridge Monitoring Program and the Regional Wastewater Flow Forecast Model. While always important, these issues have taken on a greater importance as the new criteria are developed and are transformed into standards. Monitoring will be instrumental in determining whether or not attainment of water quality standards has been achieved and to provide input into the proposed Potomac River Water Quality Model and updated Chesapeake Bay program Sediment Model. These will have major implications for additional water pollution prevention and control requirements.

Water Resources Program <ul> <li>Regional Water Quality Policies and Programs</li> <li>Technical Analysis</li> </ul>	
<ul> <li>Upgrade and Application of Water Qual</li> <li><u>Project Description/Objectives</u>:</li> <li>The Water Quality Model (WQM) is the primary tool used by the Bay</li> <li>Program to set nutrient and sediment load caps to meet proposed</li> </ul>	Budget: \$ 25,000 Regional Water Fund
water quality goals. The Watershed Model (WSM) is the primary tool used in allocating load caps among jurisdictions and sectors.	<u>Committee Oversight</u> : Water Resources Technical Committee
The US Army Corps of Engineers (COE) and other state partners are implementing a major, multi-year upgrade to the Potomac estuary water quality model and Chesapeake Bay sediment model. This will have significant program implications for stakeholders in the region.	Blue Plains Technical & Regional Committees
Regional participation in this effort will greatly enhance the active role of the region in development of the technical tools underlying major water quality management decisions, particularly related to Blue Plains. Such participation has served the region well for more than 20 years.	<u>Project Manager</u> : Steve Bieber <u>Staff Resources</u> : Stuart Freudberg, Tanya Spano, Ted Graham, Mukhtar Ibrahim
The Blue Plains Users are funding a significant portion of the local share of this project (the project is described in the Blue Plains Regional Committee work program). This will insure that the modeling tools and regulatory decisions affecting Blue Plains and the region are based on the "best available science."	
The Regional Fund contribution will ensure that the spectrum of local impacts will be fully explored, including the tidal fresh Potomac and embayments in the Washington area. This will also provide for briefings and worksessions with the WRTC and CBPC related to the regional implications of the upgrade and application of the WQM and WSM.	
<ul> <li><u>Major Products</u>:</li> <li>Technical assessment and memorandum on existing Bay model r</li> <li>Regular technical updates to the WRTC regarding project status (</li> </ul>	

Water Resources Program	
Chesapeake Bay and Potomac Water Quality Management	
<ul> <li>Planning and Monitoring</li> </ul>	
Regional Monitoring Program	
Project Description/Objectives:	Budget: \$125,000 Regional Water Fund
COG will continue storing and managing the region's water quality	
monitoring data in a central, readily accessible database. It	
encompasses the region's water quality and wastewater databases for	
the Potomac and Anacostia Rivers. It also provides for COG staff to respond to information requests by members and to participate in other	Committee Oversight:
regional monitoring efforts, such as specialized efforts by the CBP's	Regional Monitoring Subcommittee
Monitoring Subcommittee and Point Source Workgroup and the USGS	5 5
National Water Quality Assessment Program. It also covers support to	
the Regional Monitoring subcommittee.	Duciast Managan, Chave Diahan
	Project Manager: Steve Bieber
COG staff will continue to coordinate local government involvement in	Staff Resources: Christine Howard, Mukhtar Ibrahim, Heidi Bonnaffon
the Potomac shallow-water monitoring effort that will begin in 2006. In addition, COG stall will examine whether other long-term monitoring	
programs need to be established to develop baseline assessments for	
the Potomac TMDL programs being developed by DCDOH and MDE.	
COG will continue working with other agencies to improve data sharing	
and reporting.	
COG will continue to convene a regional monitoring subcommittee twice	
per year to present issues of relevance to the monitoring programs of	
COG members and to allow exchange of information between members.	
members.	
Major Products:	
Complete and publish a Potomac and Anacostia Rivers Water Qua	lity Status and Trends report
<ul> <li>Continue to update Water Quality Procedure Guide to reflect char</li> </ul>	iges in member protocols.
Facilitate two Regional Monitoring Subcommittee meetings	
<ul> <li>Reporting to WRTC in areas of need for regional monitoring, focu</li> </ul>	sing on long-term Chain Bridge monitoring and other potential programs.

• Prepare recommendations on regional data management options.

Water Resources Program <ul> <li>Chesapeake Bay and Potomac Water Quality Management</li> <li>Planning and Monitoring</li> </ul>		
<ul> <li>Chain Bridge and Little Falls M</li> </ul>	onitoring	
Project Description/Objectives: This project continues to maintain the single most important Potomac estuary pollution monitoring station (at Chain Bridge). It involves operation of an automated storm monitoring and grab sampling system for conventional pollutants and nutrients at the Chain Bridge monitoring	Budget: \$120,639 Regional Water Fund	
station on the Potomac River. It provides for estimating pollutant loads, calculating trends and calibrating the Chesapeake Bay Watershed Model. It enables comparison of loading estimates between composite sampling (COG method) and discrete sampling (USGS method used for the Chesapeake Bay Program). It also provides an important "reality	<u>Committee Oversight</u> : Regional Monitoring Subcommittee	
check" on modeled load estimates that are critical to the load allocation	Project Manager: Christine Howard	
process. The monitoring program is subject to modification as necessary to supplement regional monitoring needs for regulatory and cooperative programs.	Staff Resources: Steve Bieber, Mukhtar Ibrahim Outside Resources:	
This project also covers the local share of the USGS gauge at Little Falls.	<ul> <li>Chain Bridge (Occoquan Lab) - \$109,639</li> <li>Little Falls (Local Share) - <u>\$11,000</u></li> <li>Total - \$120,639</li> </ul>	
Major Products:         • Operation of Chain Bridge Monitor         • Final technical memo on prior year data and loads (4th Quarter)         • Presentations to technical committees as requested.         • Technical Memorandum/Report analyzing fall line data and loadir	ngs. (4 <sup>th</sup> Quarter)	

#### COG FY 2007 Environmental Programs Work Program and Budget

#### Environmental Programs under COG Board of Directors: Water Resources Program Urban Watershed Management

The Urban Watershed Management program addresses a range of local watershed management activities, including: improving the principles and practice of regional urban storm water controls, the integration of local storm water management control programs into a regional context, and support for urban forestry. It provides a focus for roughly one-third of C2K's 100 or so commitments, that have a direct effect on local government watershed management programs.

The funding for watershed management activities is a combination of local membership funds, Regional Environmental Funds, and external grants, thus supporting a core watershed management program coupled with grant-funded activities involving COG matching money as required. The Regional Environmental Fund is a key component of this funding, with a focus on the stormwater management interests of the Water Resources Technical Committee including technical exchange through timely workshops. A portion of the funds is intended to support member-endorsed activities and attract external funding contributions. Recent grant activity includes the pope Branch and Fort Chaplin baseline stream assessment projects and the Holmes Run/Cameron Run biodiversity project.

There are three components of the Urban watershed Management Program: (1) Urban Stormwater & Site Design; (2) Stream Ecology, Forestry and Watershed GIS Applications; and (3) Green Infrastructure.

Water Resources Program	
Urban Watershed Management	
Urban Stormwater & Environmenta	Illy Responsible Lawn and Landscaping
Practices.	
<u>Project Description/Objectives</u> : Promote technical information exchange and provide support for COG members in the area of urban stormwater management and environmentally responsible lawn and landscaping practices. Provide focus regarding the implications of urban stormwater pollution to the region's water quality. Continue to pursue grant	Budget:\$20,000Regional Environmental Fund25,000COG Local Funds\$45,000Total
opportunities that promote COG member urban stormwater, environmentally responsible lawn and landscaping practices, and environmentally sensitive site design (ESSD) objectives and initiatives. Identify opportunities to partner with members on increasing the awareness of the general public concerning the benefits and practices	<u>Committee Oversight:</u> Water Resources Technical Committee Chesapeake Bay Policy Committee
of responsible lawn care and landscaping including the appropriate use	Project Manager: Steve Bieber
of chemical inputs, water, and plant species.	Staff Resources: Ted Graham, Heidi Bonnaffon
<ul> <li><u>Major Products:</u> <ul> <li>Individual meetings with COG jurisdictional members to educate Initiative</li> <li>Development and dissemination of a broadly accepted and endor landscaping to lawn care operators, public policy officials, home</li> </ul> </li> </ul>	
<ul> <li>Conduct workshop on integrating land use planning with watersh summary</li> </ul>	
<ul> <li>Development of one or more local/regional demonstration project researchers.</li> </ul>	
<ul> <li>Presentation(s) to the Water Resources Technical Committee, Ch appropriate (bi-monthly/as needed)</li> <li>Grant project deliverables (as specified in grants)</li> </ul>	esapeake Bay Policy Committee and Bay Program committees as

Water Resources Program > Urban Watershed Management Stream Ecology, Forestry and Watershed GIS Applications \$45,266 Project Description/Objectives: Budget: Regional Environmental Fund This work element provides for limited direct staff support and \$33,400 COG Local Funds opportunities to leverage grant support covering watershed monitoring External Grant Support \$50,000 studies, assessment of physical, chemical and biological conditions of \$128,666 local streams, riparian forest buffer and watershed evaluations using Committee Oversight: remote sensing and GIS applications, evaluation of the performance of Water Resources Technical Committee various urban stormwater Best Management Practices and/or other watershed water quality enhancement-related projects and initiatives. COG staff will continue to pursue grant opportunities which promote and/or enhance COG member watershed protection, restoration and Project Manager: John Galli management objectives and initiatives. Based upon such grant support, COG staff will continue to provide stream restoration, fish Staff Resources: Phong Trieu, Brian Lecouteur Kate Levendosky passage, stormwater management, wetland creation and riparian habitat restoration design and technical watershed evaluation expertise and guidance to COG members. Activities supported in this work element, including some with grant support, include staff support to the Community Forestry Network (CFN); expansion of the green infrastructure database for the Washington Metropolitan area; and several stream and riparian buffer assessment studies. Major Products: Loudoun County – Beaverdam Creek Phase II, Stream Assessment Study (Spring 2007) • Frederick County- Phase I, Historic Forest Cover Analysis (Spring 2007) Catoctin Creek Watershed /Frederick County Riparian Corridor and Watershed Land Cover Analysis (Winter 2006) • Regional Forestry Directory Update (Winter 2006) • Urban Forest Management Handbook Update (Spring 2007) Still Creek Phase I, Baseline Stream Assessment Study (Spring 2007) • Grant deliverables (TBD) •

Water Resources Program <ul> <li>Regional Nonpoint Source Management</li> <li>Green Infrastructure Planning &amp; Database Management</li> </ul>		
<ul> <li><u>Project Description/Objectives</u>:</li> <li>This work element provides for some direct staff support and opportunities to leverage grant support covering green infrastructure projects for the Metropolitan region. This will include project areas such as maintaining current land cover mapping databases using remote sensing and GIS applications as well as supporting ongoing regional Green Infrastructure initiatives. This element is also designed to support ongoing work for the Regional Agricultural Initiative including further analysis of farm markets, mapping agricultural lands and support of the new Regional Agricultural Workgroup (RAW) to explore opportunities that support agricultural-related activities. COG and the National Park Service are currently pursuing joint funding opportunities through their ongoing cooperative agreement. COG staff will continue to pursue other grant opportunities which promote and/or enhance COG member green infrastructure programs for the protection. Based upon such grant support, COG staff will continue to provide expertise and guidance to COG members.</li> <li>Activities supported in this work element, include pursuit of grant matching funds, staff support for the Regional Agricultural Workgroup, assisting COG membership on Green Infrastructure and Agriculture programs, as well as maintenance and expansion of the green infrastructure database for the Washington Metropolitan area.</li> </ul>	Budget:       \$52,500       COG Local Funds         \$150,000       External Grant Support (TBD)         Committee       Oversight:         Water Resources Technical Committee         Chesapeake Bay Policy Committee         Project Manager:         John Galli         Staff Resources:         Phong Trieu, Brian LeCouteur,         Kate Levendosky	
<ul> <li><u>Major Products</u>:</li> <li>Regional Green Infrastructure Database Update and Expansion (Fall - Winter 2006)</li> <li>Support for the Regional Agricultural Workgroup (Summer 2006 – Spring 2007)</li> <li>Regional Farmers Market Vendor Database Update (Fall 2006)</li> <li>Regional Agriculture 'White Paper' (Fall-Winter 2006)</li> <li>Grant deliverables (TBD)</li> </ul>	1	

Environmental Programs Under COG Board of Directors:

Water Resources Program

#### Water Supply and Drought Management

The COG Board of Directors adopted the regional Water Supply and Drought Awareness Response Plan, which provides for coordination of action by local jurisdictions and water utilities during periods of drought. The Plan also calls for the implementation of a year round "Wise Water Use" campaign. Overseeing this plan and regional drinking water issues is the Water Supply Task Force (WSTF), established by the COG Board in 1999. The WSTF acts as the central clearinghouse and coordinator of programs related to regional water supply, as well coordination with the Drought Coordination Committee and its Technical Committee, and a Communication Work Group that was established to assist the WSTF in handling media requirements and the implementation of the wise water use campaign. The WSTF, through the COG staff will, during FY 2007, continue to monitor and assess regional water resource conditions, distribute up-to-date information through monthly drought reports, presentations and briefings, and maintenance of an informational website. In addition, the COG staff will assist the WSTF continue to address a number of other important areas including Response Plan expansion to incorporate non-Potomac water utilities, resource information and messages, continued coordination and communication with Maryland and Virginia environmental agencies, continued water security activity, tracking and assessment of drought related technical studies, periodic and often frequent media contact and response and assessment of long-range needs as identified by the water utilities. The latter can include an assessment of potential small tributary impoundments to serve as auxiliary water supplies.

During FY 2006, there were continued efforts to update the Water Supply Emergency Plan (WSEP). The completed 2005 WSEP will provide important coordination and communication guidance in the event of a regional water/wastewater incident and is an annex to the Regional Emergency Coordination Plan. During FY2006 the region's water utilities and local governments through the Water Security Work Group continued to oversee regional projects designed to address drinking water security and reliability. These projects included the establishment of a regional water security monitoring network, spill model upgrades, distribution system modeling, and the assessment of emergency water interconnections and storage as well as power supply and capabilities. Additional efforts to establish regional water supply operations plans and best management practices for water security are currently underway and will continue into FY 2007.

Since its launch in 2003, the regional year-round Wise Water Use campaign has become an integral component of water conservation education in the National Capital Region. The campaign continues to be comprehensive, reaching out to residents and businesses throughout the region, providing information on area water resources and tips on simple ways to save water. The Wise Water Use campaign involves broadcast media, theater and transit ads, internet, as well as public school education and community outreach, and partnership development. During FY2007, these activities will continue, with a strong emphasis on partnership development and coordinated activities as well as public school education. Started in FY 2006, the campaign expects to complete and to produce a regional water conservation landscaping guide in coordination with other east coast Water, Use It Wisely partners. Many of the partnerships developed during 2006 will involve planned promotional events during FY2007.

Water Resources Program		
<ul> <li>Water Supply and Drought Management</li> </ul>		
Water Supply Task Force Support		
Project Description/Objectives: Provide continued technical, policy, and staff support to COG's Water Supply Task Force for monitoring, assessing, and implementing a water supply work program addressing regional water supply and drought management issues. Work activities will also include: the continued development and incorporation non-Potomac utilities into the regional Drought Response Plan; continued monitoring of regional water supply conditions; preparation of monthly conditions reports; response to media requests; briefings to the COG Board; support and coordination of the Drought Coordination Committee, Drought Technical Committee and Communication Work Group; maintenance of the COG water supply web page; and participation and coordination in the annual drought and water security emergency exercise.	Budget: \$40,000 Regional Water Fund	
	<u>Committee Oversight:</u> Water Supply Task Force COG Board of Directors	
	Project Managers: Stuart Freudberg/Jim Shell Staff Resources: Doug Wade, Christine Howard	
<ul> <li><u>Major Products:</u> <ul> <li>Staff 1-2 Water Supply Task Force meetings (Spring/Fall 2006-7)</li> <li>Staff Drought Coordination Committee, Drought Tech Committee during periods of drought (as needed)</li> <li>Tracking and monitoring of Potomac basin drought conditions and website updates (continuing effort)</li> <li>Staff meetings of Communications Work Group (as needed)</li> <li>Continued tracking and analysis of MD DNR Flow-by study; MDE Consumptive Use study and other major water supply related studies (continuing effort)</li> <li>Monthly Regional Drought Reports (Seasonal, May-Oct.)</li> <li>Continued staff support and management to the Water Security Work Group (continuing effort)</li> </ul> </li> </ul>		

Water Resources Program <ul> <li>Water Supply and Drought Management</li> </ul>	
<b>Wise Water Use Campaign</b> Project Description/Objectives: Implementation of a regional and District of Columbia educational and information campaign for water conservation. Continued implementation of a multi-year wise water use campaign that 1) increases awareness of area water resources and their suppliers and engender support for wise water use and 2) maximize the use of existing infrastructure, defer unnecessary and wasteful uses of water, and/or delays the need to identify and select new drinking water supplies, and 3) provide support to educational programs in area public schools; development of a 8 to 10 minute water resources/conservation video; 4) continued implementation of a major educational program to enhance wise water use awareness among local elementary/middle schools; 5) conduct water conservation information workshops; 6) develop public/private partnerships and implementation of promotional events with those partners; 7) develop and print a regional water conservation landscaping guide booklet; and 8) continued design and maintenance of a COG water conservation/Wise Water Use website.	Budget:       \$ 50,000*       2005 Grant Carryover         \$ 25,000       Regional Water Fund         _\$ 93,000       Other sources (EPA, utilities, partners)         \$ 168,000       Total         *estimated         Committee Oversight:         COG Board of Directors         Water Supply Task Force and Communications Work Group         Project Manager: Jim Shell         Staff Resources: Stuart Freudberg, Doug Wade, Christine Howard
<ul> <li><u>Major Products</u>:</li> <li>Continued implementation of a regional year-around wise water use ad campaign (Ongoing – Spring /Summer 2007 focus);</li> <li>Production of a 8 to 10 minute video on water resources (with primary emphasis on the District of Columbia) (Spring/Summer 2006-7);</li> <li>Major water resource awareness and wise water use program in local elementary/middle schools (Spring 2006/Winter-Spring 2006-7);</li> <li>1 or 2 water conservation information workshops for area building managers (Winter/Spring 2006);</li> <li>Major efforts to develop public/private campaign partnerships for ongoing and future conservation efforts (ongoing);</li> <li>Update COG water conservation/wise water use website (ongoing)</li> <li>Partnership promotional events (ongoing)</li> </ul>	

Water Resources Brogram		
Water Resources Program		
<ul> <li>Water Supply and Drought Management</li> </ul>		
Water Supply Emergency Plan Exercise		
Project Description/Objectives:	Budget: \$45,000 Regional Water Fund	
Within the Regional Emergency Support Function #3 (Public Works and	<u>\$25,000 EPA</u>	
Engineering) is the Water Supply Emergency Plan (WSEP). Completed	\$70,000 Total	
in FY 2005, this annex provides detailed communication and		
coordination guidance to area water and wastewater utilities during		
region wide emergencies and incidents. In order for the WSEP to	Committee Oversight:	
remain effective the plan and it's newly established water security	National Capital Region-Emergency Preparedness Council (EPC)	
monitoring network needs to be exercised on a regular basis. During	Water Security Work Group	
FY 2007 staff will develop and implement a functional exercise involving		
area water/wastewater utilities, as well as local, state, and federal	Project Manager: Jim Shell	
agencies and organizations. The exercise will be evaluated and an		
after-action report summarizing the exercise along with	Staff Resources: Stuart Freudberg, Steve Bieber, Doug Wade, Christine	
recommendations for modifications/improvements to the WSEP will be	Howard; Heidi Bonnaffon	
prepared.	,	
	Outside Resources: Facilitators	
Major Products:		
Develop a regional functional exercise of the Water Supply Emergency Plan (Fall 2007)		
<ul> <li>Implementation of a one day regional functional exercise (Winter 2007)</li> </ul>		
WSEP Exercise Summary After-Action Report (Spring 2007)		

#### Environmental Programs under COG Board of Directors: Water Resources Program Water Resources Program Management and Development

This work program area covers COG's role as a member service organization by responding to COG Board and individual COG member requests for information on regional water resources programs and policies. This may include tracking of legislative and regulatory actions and serving as a clearinghouse for water resource information of interest to COG members. This also covers specific departmental management and administrative activities related to water resources management. In addition, it includes staff activities to develop the FY 2007 water resources work program and budget as well as efforts to obtain federal, state and other funding support.

Water Resources Program > Water Resources Program Management and Development		
<ul> <li>COG Board and Member Support</li> </ul>		
Project Description/Objectives: This task enables COG to fulfill its role as a member service organization by responding to member requests for information on regional programs and policies and serving as a clearinghouse for environmental information. It provides for COG staff to respond to	Budget:\$75,000Regional Water Fund\$15,000COG Local Funds\$90,000Total	
special requests for technical assistance or other support from the COG Board and COG members. Typical examples include reporting on the latest regulatory requirements under the Clean Water Act or proposed funding strategies at the federal and state level. It also provides funds for staff support in developing water resources presentations to the	<u>Committee Oversight</u> : Chesapeake Bay Policy Committee COG Board of Directors	
COG Board and other COG committees and COG members.	Project Managers: Stuart Freudberg, Ted Graham	
	Staff Resources: Karl Berger, John Galli, Jim Shell, Tanya Spano, Steve Bieber	
<ul> <li>Major Products:</li> <li>Response to requests (as requested)</li> <li>Federal and state legislative and regulatory summaries (as requested)</li> <li>Briefings and presentations to COG Board and others (4-6 per year)</li> </ul>		

Water Resources Program <ul> <li>Water Resources Program Management and Development</li> <li>Program Management and Budget Development</li> </ul>		
Project Description/Objectives:This task will fund management and administrative activities in supportof the FY 2006 work program. It also covers the preparation of the FY2007 regional water resources work program and budget incollaboration with the Water Resources Technical Committee. It alsoincludes preparation of performance appraisals and participation ininternal staff meetings.This task will also help support COG staff in submitting certain workprogram proposals or grant applications designed to secure fundingsupport from outside agencies. This also helps support costsassociated with proposal writing or preparation of RFPs for certain pass-through contracts such as for special water quality studies.	Budget:       \$ 190.909       Regional Water Fund         \$15,000       COG Local Funds         \$205,909       Total         Committee Oversight:       Chesapeake Bay Policy Committee         COG Board of Directors       Project Manager: Stuart Freudberg, Ted Graham         Staff Resources: Karl Berger, John Galli, Jim Shell, Tanya Spano, Steve Bieber	
Major Products:Preliminary FY 2007 budget (1 <sup>st</sup> quarter)Midyear Budget Review (3rd quarter)Proposed FY 2007 final work program and budget (3 <sup>rd</sup> quarter)Final FY 2007 work program and budget (4 <sup>th</sup> quarter)Grant Proposals (Ongoing)		