REGIONAL WATER QUALITY MANAGEMENT FY19 WORK PROGRAM AND BUDGET

DRAFT [for WRTC & IMA-RC Review]

July 1, 2018 to June 30, 2019

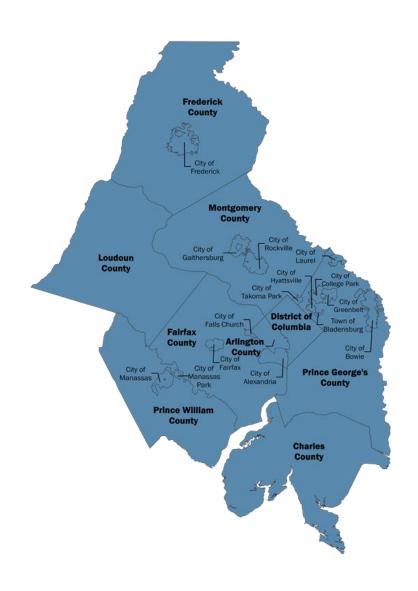




ABSTRACT

This is the Annual Work Program and Budget (Fiscal Year 2019) for COG's Regional Water Quality Management (RWQM) Program.

This work program is funded by and provides support to COG's local government members <u>https://www.mwcog.org/about-us/cog-and-our-region/local-governments/</u> and participating local wastewater and water utilities. The program has been developed to address regional water quality/water resources issues in the metropolitan Washington region.



COG Members

District of Columbia

Maryland:

Bladensburg Bowie Charles County College Park Frederick Frederick County Gaithersburg Greenbelt Hyattsville Laurel Montgomery County Prince George's County Rockville Takoma Park

Virginia:

Alexandria Arlington County Fairfax Fairfax County Falls Church Loudoun County Manassas Manassas Park Prince William County

Participating Wastewater and Water Utilities & Others

District of Columbia: DC Water

Maryland: Washington Suburban Sanitary Commission

Virginia: Alexandria Renew Enterprises Fairfax Water Leesburg Loudoun Water Prince William County Service Authority Purcellville Upper Occoquan Service Authority Virginia American Water Company

TABLE OF CONTENTS

Ι.	 REGIONAL WATER RESOURCES MANAGEMENT A. COG's Water Resources Programs B. RWQM Program Oversight & Coordination C. Drivers & Challenges - FY 2019 	Page 1 Page 1 Page 2 Page 2
	Table 1 – Drivers and Challenges – FY 2019 Figure 1 – RWQM Program – Drivers, Challenges, Guiding Principles & Key COG	Page 3
	Initiatives - FY 2019	Page 5
	D. Key Initiatives for FY 2019	Page 6
II.	FUNDING AND BUDGET A. Funding Sources B. Funding Levels, Budgets & Allocations	Page 7 Page 7 Page 7
	Table 3 – Local Government Contributions to COG's Regional Funds – FY 2019 Table 4 – RWQM Program Budget Allocations – FY 2019	Page 8 Page 9
	Chart 1 – RWQM Program Budget Allocations – FY 2019 Chart 2 – RWQM Program Funding Sources – FY 2019 Chart 3 – Regional Water Fund – Funding Jurisdiction/Agency Shares – FY 2019	Page 10 Page 10 Page 10
III.	 ANNUAL WORK PROGRAM AND BUDGET 1. Overview & Program Descriptions Policy & Program Development Water Quality/Water Resource Management & Technical Analysis Urban Watershed Management Services Water Resources Outreach, and Water Supply & Security 	Page 11 Page 11 Page 12 Page 14 Page 17 Page 19

APPENDIX A

Local Government Contributions to COG's Regional Water Fund and Regional Environmental Fund - FY 2018 and FY 2019

I. REGIONAL WATER RESOURCES MANAGEMENT

This is the Annual Work Program and Budget for COG's Regional Water Quality Management (RWQM) Program for Fiscal Year 2019 (FY 2019). It includes information on COG's water resource programs; committee oversight; key challenges, drivers and priorities; budgets; and key deliverables. The work program is structured to meet the needs of COG's members to address critical regional water resource and water quality issues. Key features of the FY 2019 RWQM work program are summarized below.

A. COG'S WATER RESOURCES PROGRAMS

Under the overall administration of COG's Department of Environmental Programs, Water Resources Program staff assist COG's local government members, and affiliated wastewater treatment and drinking water utilities, with protecting, restoring, and conserving the region's water resources as well as addressing the policy and technical implications of state and federal initiatives that have water quality/resource implications for the COG region. COG's four primary Water Resources Programs include:

- Regional Water Quality Management Program (RWQM) This program addresses regional water quality issues, particularly in the upper estuary of the Potomac River. The primary support for the program is the Regional Water Fund which is funded by the Blue Plains IMA Parties¹ [under the terms of the 2012 Blue Plains Intermunicipal Agreement (2012 IMA), Service Agreement #2], as well as by COG's local governments and wastewater utilities. Oversight of this program is by COG's Chesapeake Bay and Water Resources Policy Committee (CBPC) and the Blue Plains IMA Leadership Committee; and supported by the Water Resources Technical Committee (WRTC) and IMA Regional Committee.
- Blue Plains Intermunicipal Agreement (IMA) Support This program supports the coordination among the parties to the Blue Plains 2012 IMA, provides technical and policy support to the parties, and is funded solely by those Parties. Oversight of this program is by the Blue Plains IMA Regional and Leadership Committees.
- Urban Watershed Programs This includes regional stormwater activities that support COG's members' needs and that are aligned with the RWQM's mission. The regional aspects of the program are incorporated in the RWQM Program; while oversight of specific grant-funded projects is by the grantor agencies.
- Water Security and Resources This program addresses security and supply issues with local drinking water and wastewater utilities. The program is funded primarily through contributions from the region's water and wastewater utilities (e.g., through the Community Engagement Campaign), and through federal grants. Oversight for this program is provided by the Water Security Workgroup, National Capital Region Homeland Security Executive Committee (HSEC) and the HSEC Advisory Council.

¹ Blue Plains IMA Parties – District of Columbia, DC Water, Fairfax County, Montgomery County, Prince George's County, and Washington Suburban Sanitary Commission.

B. RWQM PROGRAM OVERSIGHT & COORDINATION

RWQM Annual Work Program and Budget – The primary focus for this program is to address water quality issues associated with the assessment and protection of the upper Potomac River and its tributaries. Overall funding levels for the next year's work program are set by the COG Board each fall, with formal adoption of the overall work program the following spring.² The CBPC and the IMA Leadership Committee are responsible for approving the annual work program. Technical oversight is provided by the Water Resources Technical Committee (WRTC) and the IMA Regional Committee. Details for other water resource work programs are outlined in separate work plans and oversight is handled by those program funders.

Integrating Water Quality/Resource Issues – The RWQM Program is overseen by the <u>CBPC</u> and coordinated with the Department's other related programs (e.g., energy, climate change, sustainability, air quality, security, and Anacostia watershed). It is also designed to complement and support the COG Board's Mission and priorities on a wide range of issues that have water resource and broader environment implications – such as:

- <u>Region Forward</u> vision
- <u>Economy Forward</u> initiatives
- Water-specific <u>climate change & energy</u> commitments in conjunction with COG's <u>Climate</u>, <u>Energy</u>, and <u>Environment Policy Committee</u> (CEEPC)
- COG Board Priorities <u>Economic Competitiveness</u> and <u>Legislative Priorities</u>

C. DRIVERS & CHALLENGES - FY 2019

WATER SECTOR DRIVERS

The focus for the region's water resource providers continues to be – 'to protect water quality and public health in a sustainable and affordable manner for the region.' The key features of the FY 2019 RWQM Work Program generally reflect the same overall drivers, challenges, areas of focus and level of effort as the past few fiscal years. However, in FY 2019 there will be an even greater need to assess the affordability, feasibility and sustainability of these efforts in the face of growth, climate change impacts, and other water infrastructure demands.

A key area of focus for the region and this work program continues to be the Chesapeake Bay Program's (CBP's) Bay Total Maximum Daily Load (TMDL) and quantifying the level of effort needed over the next seven years to meet and maintain the Year 2025 100% implementation goal (i.e., 2025 Goal) – as well as the associated water quality standards and permit requirements. Now that the 2017 Midpoint Assessment has been completed; the new levels of effort required to meet that 2025 Goal, will be codified in the development of the Phase III Watershed Implementation Plans (WIPs) – which outline the wastewater, stormwater, agricultural, and air demands and requirements that will face COG's members over the next seven years and beyond. In addition, the development of the Conowingo WIP could also have implications for the COG region. And there will be continued efforts to formally quantify the water quality impacts of climate change, as well as the impacts on the performance of stormwater management practices – both of which have implications for the Phase III WIPs. A critical issue during FY 2019 will be to monitor and analyze whether and how the Conowingo WIP and climate impacts may result in additional load allocations being assigned to COG's local governments and water utilities – beyond the expected Phase III WIP requirements. In

² The COG Board adopted the FY 2019 budget for this program on November 8, 2017, and the overall regional work program focus on May 9, 2018.

summary, the region's water resource providers continue to work to achieve fundamental public health and environmental goals while responding to ever evolving drivers and challenges (summarized in Table 1).

Table 1 – Drivers & Challenges – FY 2019								
Drivers	Challenges							
NPDES & MS-IV Permits	 Meet existing & new/evolving regulatory requirements, & other 							
Bay TMDL & WIPs	environmental objectives							
Local TMDLs & Restoration Goals	 Prioritize & innovate given need to implement sustainable & 							
Other Environmental Goals	 affordable solutions given: Constrained schedules/deadlines & resources Limited/constrained funding Effectively respond to new/emerging water resource issues Respond to continued growth Provide support for the region's economy 							
Resilient Water Infrastructure	 Maintain existing/aging infrastructure Build new infrastructure & implement new technologies Address extreme weather/climate impacts on water resources/infrastructure 							
Jobs Skills/Workforce Needs	Address aging work force & new job/job skill needs							

WATER SECTOR CHALLENGES

As background for this annual RWQM Work Program, some of the key regional challenges and innovations for FY 2019 specific to these water sectors are described below.

1. <u>Water Quality & Water Resources</u>

- Chesapeake Bay TMDL continues to be a primary driver for many of the requirements placed on the region's wastewater plants and stormwater programs. COG's efforts continue to ensure that those decisions are based on sound science and equitable responsibility. This will be especially important during the assessments of Conowingo and Climate Change loads new loads that have not been accounted for or allocated yet in the 2025 goal.
- New permit and implementation strategy requirements continue to address local water quality and local TMDLs also increase demands on members' water management programs [e.g., toxics (PCBs), bacterial standards, salt/chlorides, and climate change impacts]. Efforts to integrate and collaborate on these matters will continue to be important for the region.
- Need to identify & implement cost-effective and affordable ways to improve water quality in the face of budget, staffing and resource constraints, and in response to growth and climate impacts. To address these broad water quality/water resource challenges, the region's wastewater and stormwater operators continue to be industry leaders in implementing cutting edge treatment technologies, as well as innovative implementation and funding programs.
- Need to effectively **communicate** challenges and resultant costs to the public and ratepayers; and to improve the visibility of this sector noting its critical role in supporting the local economy and providing local job opportunities as well as protecting the environment.
- Water infrastructure issues continue to be an area of local, regional and national concern, although they often manifest somewhat differently between wastewater/drinking water systems (large, aging systems) and stormwater (many new/dispersed systems are just now being implemented). At the same time, the region's economy as well as public health and environmental quality depend on these water infrastructure systems operating consistently, reliably, and in a sustainable and affordable manner. Going forward, it will be important to link these issues with adequacy of funding, affordability and the impacts of increasing rates.
- Need for **sufficient and adequately skilled workers** to operate and maintain the region's water facilities and systems (e.g., wastewater/drinking water workforces anticipate significant

retirements over the next 5 to 10 years, while stormwater workforce needs are often focused on the growing need for new/credentialed workers).

• Need to implement more holistic/sustainable practices, to address dual water-energy needs (e.g., Net Zero Energy Facilities, water reuse, reducing Greenhouse Gases), as well as local and regional resiliency and sustainability goals. In addition, dealing with flooding and climate impacts will also require more integrated approaches to water resource management.

2. <u>Wastewater Management</u>

- COG's member local governments and wastewater utilities played a major role in the wellrecognized success of the Bay's wastewater sector by achieving the Bay TMDL implementation goal a decade earlier than the agreed upon 2025 deadline. COG's wastewater plants will continue to need to build upon those successes in the face of **continued growth** in the region.
- At the same time there may also be opportunities for nutrient 'trading in time' between the region's wastewater and stormwater sectors that may help to temporarily bridge the implementation gap for some portion of the region's stormwater load reduction needs. Going forward, COG's efforts will need to ensure that the local financial commitments made to build these advanced wastewater treatment processes and provide future growth capacity are protected when EPA/the states address the 2025 goal.
- The wastewater industry continues to evolve from its fundamental role to treat wastewater to protect public health and the environment to that of being producers of, or recovery of, valuable water resources for their communities. (e.g., as water reuse, water reclamation or resource recovery facilities), along with energy efficiency, biofuel generation, and other innovations.
- Many of these efforts are linked to energy use, given that our wastewater treatment plants (like drinking water treatment plants) are dependent on external energy sources and are major energy users in our communities. These water-energy nexus issues also continue to be a key link between COG's water quality and climate change efforts (e.g., to reduce Greenhouse Gases and contribute to the COG region's progress toward meeting 2020 GHG goal).
- These demands require the **development and use of innovative/cutting-edge technologies** as well as operation of advanced treatment processes under very strict permit requirements. The opportunities for this water sector include but are not limited to: resource recovery, net-zero energy, water reuse, and the use of innovative treatment technologies activities that COG will continue to work on with wastewater experts from the COG region and national organizations.
- COG support for these efforts will range from supporting technical workshop and exchanges, to supporting wastewater and drinking water facilities' **common purchasing/procurement needs**.

3. Stormwater Management

- All of COG's members are subject to some form of stormwater permitting and continue to face increasingly stringent regulatory requirements to reduce nutrients and other forms of pollution transported by these systems. In response, COG's members have increased funding and expanded their stormwater management programs to: add staff, increase the use of consultants, expand operating and maintenance programs, and increase capital project implementation. A key challenge is the ability to continue that high level of effort/funding.
- This rapid **expansion of stormwater program capacity** entails many challenges for COG's members, including procurement, permitting and planning. The region's local governments continue to pursue innovative solutions to these challenges. COG assists by sponsoring peer exchange workshops, hosting a website to share procurement information, & coordinating members' involvement in permit negotiations.
- Going forward, it will also be critical to reconcile permit *Maximum Extent Practicable* requirements with the increased demands from the Bay TMDL efforts, especially in the face of **climate change impacts on the performance of stormwater management practices.**
- Support will continue to focus on **local flexibility in pursuing trading options,** particularly the potential for interim use of wastewater nutrient load reductions beyond allocated levels in order to address stormwater load reduction shortfalls in the short- term.

Figure 1 - RWQM Program Drivers, Challenges, Guiding Principles & Key COG Initiatives - FY 2019

OVERALL GOAL Continue to protect Water Quality & Public Health in a Sustainable & Affordable manner for the region (ref. Table 1 & Section I.D)									
DRIVERS	CHALLENGES	GUIDING PRINCIPLES	KEY COG INITIATIVES						
NPDES & MS-IV Permits Bay TMDL & WIPs Local TMDLs & Restoration Goals Other Environmental Goals Aging/Expanding Water Infrastructure Jobs Skills/ Workforce Needs	Regulatory requirements & environmental objectives Need for sustainable & affordable solutions Changes in funding streams New/emerging water resource issues Continued growth Support for region's economy Maintain existing/aging infrastructure Build new infrastructure & implement new technologies Address extreme weather/climate impacts on water resources/infrastructure Address aging work force & new job/job skill needs	Holistic Requirements Equitable Responsibility Sound Science Communication and Voice Implementation Flexibility & Innovation	Dialogue & Policy Partnerships Strong Technical Analysis & Use of Sound Science Advocate for Local Interests & Input in Chesapeake Bay Program Communicate Water Resource Successes & Challenges						

D. KEY INITIATIVES - FY 2019

The FY 2019 RWQM Work Program has been developed to respond to the program drivers outlined earlier; and structured to help leverage existing resources, provide synergies, and assist the region and COG's members to effectively address those challenges. All of these efforts are also guided by the CBPC's stated Policy Principles (see **Figure 1**). The **Key Initiatives for FY 2019** are described below; while specific outcomes, work products and activities are provided in the **Program Area Details** that follow.

- Dialogue & Policy Continue dialogue with EPA/states/others on Bay Program and water quality initiatives to advocate for local issues and needs, as well as ensuring an active local role/voice in decision-making that affects local governments and water utilities.
- Partnerships Continue to partner with and hold regular exchanges with various organizations to leverage resources and advance common water resource goals; address a broad range of technical, policy and economic issues; and to analyze shared infrastructure job skills/workforce needs and opportunities.
- Strong Technical Analysis & Use of Sound Science Continue COG's strong expertise and technical work to analyze information and advocate on behalf of COG's members in various forums for the use of sound science in the development and implementation of federal/state programs and decisions, recognizing:
 - The changing nature of that science and the need to utilize adaptive management principles especially to address climate change impacts and uncertainties
 - o The need for equity and achievability in making decisions
 - The need to balance innovation with risk when operating under permit/regulatory requirements especially under extreme weather/varying climate impacts
 - The potential cross-media benefits as well as unintended consequences of decisions
 - \circ The need to clarify when decisions are policy-based versus technically-based, or both
 - That local government and drinking water and wastewater utilities are an important source of data, information and knowledge given their clear implementation roles
- Advocate for Local Interests & Input in Chesapeake Bay Program (CBP) Continue to actively advocate for, as well as to provide local input and data to those CBP activities of interest to the COG region and its members, including:
 - o Results of the 2017 Midpoint Assessment and its impact on the 2025 Goal planning
 - Phase III Watershed Implementation Plan (WIP) development
 - Future Watershed Model updates (i.e., the key tool that defines nutrient/sediment loads and the related nutrient and sediment load reduction efforts)
 - Monitoring & providing input on modeling assumptions about how climate impacts affect water quality – as well as how those impacts affect water resource facilities' performance
 - Active participation in (and in some cases Chairing) various committees including Water Quality Goal Implementation Team, and various work groups that address modeling, wastewater, urban stormwater, land use, climate resiliency, and toxics.
- **Communicate Water Resource Successes & Challenges** Continue to communicate on behalf of the COG region and in support of COG Board initiatives, to address/recognize:
 - Impacts and benefits of pollution control efforts in Potomac and Anacostia Rivers, local waters/streams, as well as the Chesapeake Bay
 - Current and future challenges faced by wastewater and stormwater managers (e.g., funding, staffing, feasibility, climate and capacity issues)
 - o Current water infrastructure needs and opportunities for addressing those needs
 - Contributions of the water sector workforce, and to promote the education pathways and skill sets for filling future water sector jobs
 - Potential weather/climate vulnerabilities and the implications for regional water infrastructure as well as implications for permit compliance

II. FUNDING AND BUDGET

COG's water resources programs are supported by funding from the Regional Water Fund, the Regional Environmental Fund, COG membership fees, federal grants, and contributions from COG member utilities to support regional water security initiatives.

A. FUNDING SOURCES

- Regional Water Fund (RWF) The COG Board of Directors adopted its FY 2019 Work Program and Budget on November 8, 2017 which included a funding level of \$1,483,141 for the RWF – an overall increase of approximately 4.07% compared with FY 2018. The total funding amount was first allocated consistent with the 2012 IMA; then the balance allocated based on population – with a 5% per jurisdiction cap applied to jurisdictions that would have experienced a larger increase. The RWF primarily supports work performed under the Regional Water Quality Management Program (RWQM).
- **Regional Environmental Fund (REF)** When the COG Board of Directors adopted its FY 2019 Work Program and Budget on November 8, 2017 it also included a funding level for the **REF of \$692,279**, of which **\$84,516 is used to support regional water resources programs.**
- COG Membership Fees & Other All 24 members³ of COG pay an annual fee to be a member of COG. That fee is set using a per capita rate that is applied to each jurisdiction using "population adjusted for budget", with individual jurisdiction increases capped at 5% (based upon population growth). For FY 2019, the COG member dues represent an increase of 4.07% (from FY 2018) which reflects a per capita rate increase of 1.5 cents over FY 2018. A total of \$125,200 in those Membership Fees are used to support regional water resources programs.
- Grants or Other This funding model recognizes that some program areas are heavily dependent on local, state, and federal grants, and that some projects can be leveraged through COG's regional work. In FY 2019, those types of funds account for \$1,205,130 that are used to support regional forestry, agriculture, and water security initiatives that are also part of COG's regional water resources program.

B. FUNDING LEVELS, BUDGETS & ALLOCATIONS

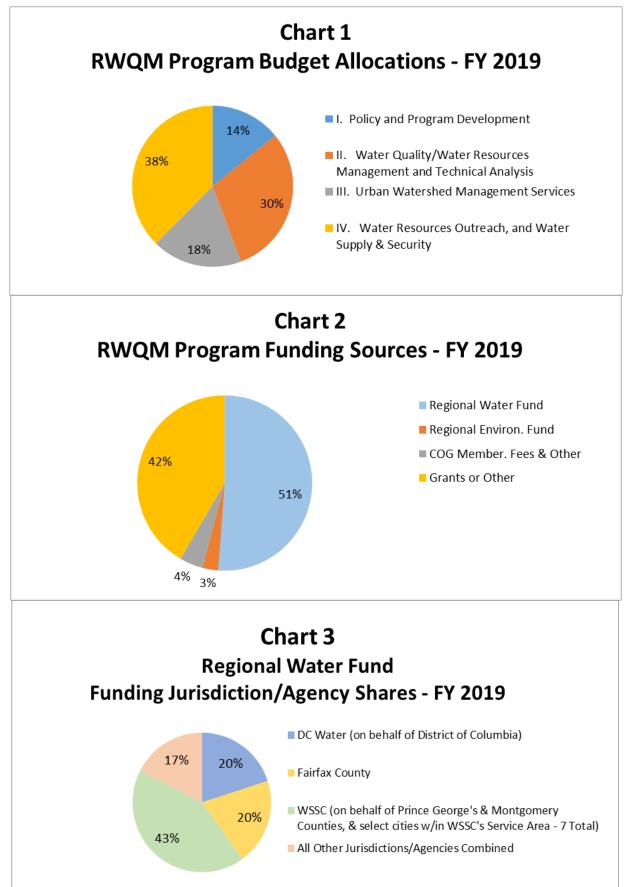
The information below provides background on these funding sources, notes the levels of funding that were approved by the COG Board (see **Table 3**) and outlines how those funds are to be allocated to address the water resource priorities for FY 2019 (see **Table 4**). **Charts 1, 2 and 3** also provide a graphical overview of the funding sources, how those funds are allocated, and the key funders' contributions.

³ Town of Bladensburg and the City of Hyattsville are Adjunct Members and pay a per capita rate of ½ of a regular member.

TABLE 3										
Local Government Contributions to COG's Regional Water Fund and Regional Environmental Fund FY 2019										
Jurisdiction Regional Water Fund Allocations Fund Allocations										
Alexandria, City of	\$	29,837	\$	20,981						
Arlington County	\$	43,312	\$	30,457						
Bowie, City of	\$	10,732	\$	7,468						
College Park, City of	\$	6,169	\$	4,338						
District of Columbia	\$	296,820	\$	96,512						
Fairfax County	\$	296,820	\$	154,580						
Fairfax, City of	\$	4,629	\$	3,255						
Falls Church, City of	\$	2,676	\$	1,882						
Gaithersburg, City of	\$	13,296	\$	9,350						
Greenbelt, City of	\$	4,062	\$	2,856						
Loudoun County	\$	76,870	\$	52,378						
Montgomery County	\$	296,820	\$	125,085						
Prince George's County	\$	296,820	\$	109,869						
Prince William County	\$	87,502	\$	61,449						
Rockville, City of	\$	13,383	\$	9,429						
Takoma Park, City of	\$	3,394	\$	2,388						
TOTALS	\$	1,483,141	\$	692,279						

COG Regional Water Quality Management Program										
Table 4 - FY 2019 Program Budget Allocations										
Program Area	Regional Water Fund	Regional Environ. Fund	COG Member. Fees & Other	Grants or Other	Total					
I. Policy and Program Development										
A. CBPC & Board/Member Support	\$300,000	\$0	\$0	\$0	\$300,000					
B. Regional Policy/Legislative Development & Advocacy Efforts	\$40,000	\$0	\$0	\$0	\$40,000					
C. Work Program Management	\$71,086	\$0	\$0	\$0	\$71,086					
SUBTOTAL	\$411,086	\$0	\$0	\$0	\$411,086					
II. Water Quality/Water Resources Managem	ent and Techni	cal Analysis								
A. Regional Water Quality Data & Analysis	\$160,000	\$0	\$0	\$0	\$160,000					
B. Potomac Monitoring Contracts	\$149,299	\$0	\$0	\$0	\$149,299					
C. Regional Wastewater Flow Forecast Model & WWTP Database and Analysis	\$80,000	\$0	\$0	\$0	\$80,000					
D. Regional Water Resources Infrastructure/Funding Analysis	\$20,000	\$0	\$0	\$0	\$20,000					
E. Technical & Program Support to WRTC	\$200,000	\$0	\$0	\$0	\$200,000					
F. Chesapeake Bay Watershed Model & Water Quality Model Work	\$150,000	\$0	\$0	\$0	\$150,000					
G. Water Resource Climate Change & Related Assessments	\$46,016	\$16,016	\$0	\$0	\$62,031					
H. Bay & Local – TMDL/WIP & Permit Support	\$50,000	\$0	\$0	\$0	\$50,000					
SUBTOTAL	\$855,315	\$16,016			\$871,330					
RWQM TOTAL	\$1,266,401	\$16,016	\$0	\$0	\$1,282,416					
III. Urban Watershed Management Services										
A. Urban Stormwater Regulatory & Program Support	\$0	\$20,000	\$ 97,200	\$0	\$117,200					
B. Regional Agriculture & Forestry Management	\$1,500	\$48,500	\$28,000	\$331,130	\$409,130					
TOTAL	\$1,500	\$68,500	\$125,200	\$331,130	\$526,330					
IV. Water Resources Outreach, and Water Sup	ply & Security									
A. Community Engagement Campaign	\$42,640	\$0	\$0	\$117,485	\$160,125					
B. Water Supply Emergency and Drought Management	\$172,600	\$0	\$0	\$756,000	\$928,600					
TOTAL	\$215,240	\$0	-		\$1,088,725					
GRAND TOTAL	\$1,483,141	\$84,516	\$125,200	\$1,204,615	\$2,897,471					





III. ANNUAL WORK PROGRAM AND BUDGET

A. OVERVIEW & PROGRAM DESCRIPTIONS

The FY 2019 RWQM Work Program continues to focus on a wide range of activities that have water quality/water resource implications for the Metropolitan Washington region. It is structured to address the many pressing challenges facing COG's local government members and water and wastewater utilities that provide wastewater treatment and drinking water services, and manage stormwater. The FY 2019 RWQM Work Program addresses priority issues in response to COG's members' needs, and actively supports and advocates on behalf of those members in a variety of technical and policy forums.

The FY 2019 RWQM Work Program is organized in four key **Program Areas**. The tables that follow outline the individual program elements, their associated budgets and funding sources, and detail the key priorities and deliverables anticipated for FY 2019.

RWQM Program Areas – FY 2019
1. Policy & Program Development
Supports policy development, advocacy, CBPC support, and overall program management.
A. CBPC & Board/Member Support
B. Regional Policy & Legislative Development
C. Work Program Management
2. Water Quality/Water Resource Management and Technical Analysis
Supports technical work for the WRTC on a wide range of water quality/water resource issues.
A. Regional Water Quality Data & Analysis
B. Potomac Monitoring Contracts
C. Regional Wastewater Flow Forecast Model & WWTP Database and
Analysis
D. Regional Water Resources/Infrastructure/Funding Analysis
E. Technical & Program Support to WRTC
F. Chesapeake Bay Watershed Model & Water Quality Model Work
G. Water Resources Climate Change & Related Assessments
H. Bay & Local – TMDL/WIP & Permit Support
3. Urban Watershed Management Services
Supports work to address environmental initiatives with water quality
implications/impacts and integrate efforts with other regional initiatives.
A. Urban Stormwater Regulatory & Program Support
B. Regional Agriculture & Forestry Management
4. Water Resources Outreach, and Water Supply & Security
Supports work to address water supply and security issues with water quality/water
resource implications and impacts
A. Community Engagement Campaign
B. Water Supply Emergency and Drought Management

B. PROGRAM DETAILS

FY 2019 RWQM Work Program Areas – Detailed Descriptions									
1. Policy & Program Development									
FUNDING SOURCES									
PROGRAM AREA	Regional Water Fund	Regional Environ. Fund	COG Member Fees	Grants or Other	Total				
A. CBPC & Board/Member Support	\$300,000	\$0	\$0	\$0	\$300,000				
B. Regional Policy & Legislative Development	\$40,000	\$0	\$0	\$0	\$40,000				
C. Work Program Management	\$71,086	\$0	\$0	\$0	\$71,086				
SUBTOTAL	\$411,086	\$0	\$0	\$0	\$411,086				

Activity Description

Working with the CBPC members and other stakeholders, COG staff will continue to address the CBPC's water resource priorities, develop policy recommendations, advance the <u>COG Board's FY 2018/FY 2019</u> <u>Legislative Policies</u>, and advocate on behalf of COG's local government and utility members on water resource issues. [Note: The technical work and associated work products needed to support these policy recommendations are outlined in Program Area 2. Water Quality & Water Resource Management and Technical Analysis.]

This program area includes analyzing issues; preparing summary documents and presentations; organizing outside speakers/presentations; supporting regular CBPC meetings (and joint meetings with other COG policy committees when warranted); preparing materials/responding to requests for information/briefings on regional water resources issues; and the associated functions needed to support the overall Regional Water Quality Management Program. As outlined in the Key Initiatives for FY 2019 (Figure 1), this program area addresses Dialogue and Policy, Partnerships, Advocate for Local Interests & Input to the Chesapeake Bay Program, and Communicate Water Resource Successes and Challenges.

Key Focus & Outcomes - Policy & Programmatic

Identify, recommend, and assist in development of policies and actions that will support the CBPC's Priorities and Key Initiatives, work with other organizations to leverage the voice and input of local governments and utilities, and put forward recommendations/provide input to state and federal regulatory agencies. Examples of activities for FY 2019 include:

• Dialogue & Policy

- Comment on legislation and support for adequate funding to address water quality, water infrastructure and other key water resource issues. Recommend policy positions and potential actions to the COG Board as appropriate.
- Organize the 9th Annual Bay & Water Resources Forum with the EPA and states focusing on expectations for implementing the requirements to meet Chesapeake Bay TMDL - given the post-2017 Midpoint Assessment, Phase III Watershed Implementation Plans (WIPs) planning, and incorporation of Bay Model updates. This will include addressing key issues such as the impacts of growth, the Conowingo Dam nutrient/sediment loads, and all climate change impacts; highlighting local successes and outreach efforts; and advocating for holistic, affordable, sustainable, flexible & innovative solutions.
- Continue to address water infrastructure issues and needs specifically focused on: adequate & long-term funding, holistic financial affordability, flexible & innovative implementation, and jobs/workforce development.
- Work to advance water infrastructure job/workforce issues in support of the COG Board's Economic Competitiveness initiative, and other regional water workforce efforts.
- o Seek input on issues & enhance regional understanding of water resource issues by:

- Regular presentations from EPA/states & regional/national organizations to share perspectives.
- Periodic tours of facilities and water resource projects to better understand the challenges of and fully appreciate the effort associated with successful implementation
- Coordinate with the COG's Region Forward Coalition; Climate, Energy and Environment Policy Committee (CEEPC); Human Services & Public Safety Policy Committee (HSPSPC); the Metropolitan Washington Air Quality Committee (MWAQC) and other COG policy committees on growth/sustainability and cross-media issues and metrics as they relate to water quality/water resources/water infrastructure (e.g., climate change, water resources and energy use, jobs/workforce issues, planning/land-use and water quality, and potential air-water benefits/credits).
- **Partnerships** Regularly coordinate with:
 - Other governmental organizations to advance issues of mutual interest and common objectives, e.g., MACo/VACo, MML/VM, CBP's Local Government Advisory Committee (LGAC), and the Chesapeake Bay Commission, on a broad range of technical, policy and economic issues;
 - Other regional and national organizations on matters of shared water resource interests, e.g., WEF, WERF, AWWA, WRF, NACWA, NACO, VAMWA/MAMWA, VAMSA/MAMSA; and
 - \circ ~ EPA and state regulatory agencies (DOEE, MDE, VA-DEQ) and EPA/CBP. ~
- Advocate for Local Interests & Input to the Chesapeake Bay Program
 - Provide formal comments and input to the CBP on key matters of interest/impact to COG's members as a result of the CBP's 2017 Midpoint Assessment and the development of Draft Phase III WIPs.
 - With the support of the WRTC and COG staff, focus input on technical concerns and ensuring that local governments/utilities' concerns are adequately addressed (e.g., Conowingo loads, modeling of climate change and BMP performance impacts, nutrient trading, account for growth, affordability, flexibility, etc.). Continue to address the scope of issues to address new reporting on biosolids, septic/on-site systems, and Combined Sewer nutrient/sediment loads that affect COG local governments and water utilities.
- Communicate Water Resource Successes & Challenges
 - Expand regional efforts to enhance communication on water resource issues to local elected officials, COG Board, state and federal officials, and the COG region. Using the CBPC's Outreach Work Plan, work to effectively communicate:
 - Regional water resource success stories, innovations and accomplishments
 - Water resources infrastructure needs and challenges
 - Continued improvements in water quality in the Potomac and other local waters
 - Integrate efforts with COG's updated webpage, blogs, tweets and other social media tools

Major Work Products & Activities

- Meetings, conference calls & events in support of the CBPC (Bi-monthly 6 meetings/year; plus, special events), including:
 - 9th Annual Bay & Water Quality Forum with EPA/federal & state representatives
 - $\circ~$ Tours of water resource/wastewater and stormwater facilities in the region
- Support CBPC & its work groups to:
 - Analyze CBP & other water resource issues
 - Analyze proposed state/federal legislation
 - \circ Identify policy implications for the region & make recommendations
- Prepare formal correspondence/comments on behalf of CBPC
- Update/report on water resource indicators/metrics in COG's Region Forward initiative
- Briefings/presentations/testimony for COG Board & members, and for local elected officials & others
- Respond to COG member & media information requests
- Routinely update COG website as an active regional resource
- Mid-year review and draft policy priorities for CBPC (Spring 2019)
- Annual Work Program & Budget for FY 2019 (June 2019)
- Annual employee performance reviews
- Work Program management and oversight

FY 2019 RWQM Work Program Areas – Detailed Descriptions							
2. Water Quality & Water Resource Management and Technical Analysis							
		FUNE	DING SOURC	ES			
PROGRAM AREA	Regional Water Fund	Regional Environ. Fund	COG Member Fees	Grants or Other	Total		
	1						
A. Regional Water Quality Data & Analysis	\$160,000	\$0	\$0	\$0	\$160,000		
 B. Potomac Monitoring Contracts (i.e., Chain Bridge Monitor & Shepardstown Gage) 	\$149,299	\$O	\$O	\$0	\$149,299		
C. Regional Wastewater Flow Forecast Model & WWTP Database and Analysis	\$80,000	\$0	\$0	\$0	\$80,000		
D. Regional Water Resources/Infrastructure/Funding Analysis	\$20,000	\$0	\$0	\$0	\$20,000		
E. Technical & Program Support to WRTC	\$200,000	\$0	\$0	\$0	\$200,000		
F. Chesapeake Bay Watershed Model & Water Quality Model Work	\$150,000	\$0	\$0	\$0	\$150,000		
G. Water Resources Climate Change & Related Assessments	\$46,016	\$16,016	\$0	\$0	\$62,031		
H. Bay & Local – TMDL/WIP & Permit Support	\$50,000	\$0	\$0	\$0	\$50,000		
SUBTOTAL	\$855,315	\$16,016	\$0	\$0	\$871,330		

Activity Description

Working with the WRTC members and other stakeholders, COG staff will continue to address a wide range of technical issues associated with the CBPC's water resource priorities, and work with local government and water utilities to share information, collaborate, and raise greater awareness of the successes and challenges facing the region's water sector. [Note: The technical work and associated work products from this program area support policy recommendations noted in Program Area 1. Policy and Program Development.]

This program area supports critical technical work to support the regions' local governments and water utilities, and includes analyzing issues, preparing summary documents and presentations, organizing speakers, supporting Water Resource Technical Committee (WRTC) meetings, and preparing materials/responding to requests for information/briefings on regional water resources issues; as well as the associated functions needed to support the overall Regional Water Quality Management Program. This program area specifically addresses the CBPC's key initiative for **Strong Technical Analysis & Use of Sound Science.**

Integration of Efforts for Multiple Benefits

These work efforts are integrated, and many activities serve multiple purposes. COG staff also actively coordinate and collaborate with other organizations to leverage COG's resources.

COG's **Water Quality Data** efforts include tracking monitoring data collected by federal, state and local agencies; maintaining a regional Potomac monitoring program at Chain Bridge; and working with local scientists to interpret results. This provides the region with the ability to:

- Assess the progress of members' water quality management programs and specific water quality improvement measures in the upper tidal estuary of the Potomac River
- Assess innovative water quality monitoring practices
- Conduct independent assessments of water quality conditions and trends in the Potomac watershed and the Potomac estuary
- Compare wastewater nutrient data against CBP's nutrient trend data, verify progress to date, and assist local governments with the development of Phase III WIPs to meet the Chesapeake Bay TMDL
- Maintain and update regional G.I.S. files relative to water quality monitoring, wastewater service area (sewersheds) and regional land river segments of the Chesapeake Bay Program

COG's regional **Wastewater Information Database** for processes, loads, permit conditions, capacity, and the **Regional Wastewater Flow Forecast Model (RWFFM)** and associated analysis support provides the ability to:

- Verify or correct CBP's data and assumptions about COG region WWTPs
- o Maintain updated information on permit status, WWTP point of contact, and land application
- o Characterize key information about COG region WWTPs water infrastructure elements
- Project wastewater flows for region, assess capacity to support Region Forward goals, to analyze flow versus load capacity constraints defined by the Bay TMDL
- Compile wastewater energy use data to support COG's Greenhouse Gas (GHG) Inventory efforts and generate emissions for CEEPC's GHG Inventory effort – as well as to highlight the advances being made by the region's WWTPs toward meeting the Bay TMDL

COG staff's technical knowledge, ability to analyze key modeling tools and data, and its active participation in various CBP committees, and other forums (as well as its participation in various local/regional/national forums & associations), provides staff with the ability to:

- Analyze the data, assumptions and implications of the models being used by the CBP and to collaborate with other local government organizations to raise issues and advocate for local positions
- o Identify critical technical and policy issues and recommend positions for COG's members
- Holistically address water quality/water resource issues on behalf of the region regardless of the source or specific water issue being addressed; address multi-media issues; and ensure that these efforts are integrated with broader climate impact and resiliency work

Key Focus & Outcomes - Technical

As outlined in the **Key Initiatives for FY 2019,** the activities for this work program area will occur throughout the year and will continue to emphasize:

- The analysis of nutrient and sediment loading trends in the Potomac watershed water quality conditions in the Potomac estuary
- Active analysis and participation in the CBP's TMDL post-2017 Midpoint Assessment process
- Technical work and recommendations to support the CBPC and COG Board with its policy priorities
- Addressing water infrastructure matters noting its importance to the protection of the environment and public health, how it supports the region's economy, and the related jobs/workforce benefits
- Addressing toxics, such as PCBs, as well as other contaminants such as sodium chloride and other salts that have implications for wastewater, stormwater, and drinking water programs in the region
- Enhancing linkages and understanding between flooding, stormwater management and climate impacts – including leveraging work being done by/for other organizations (e.g., USACE, USGS, CBP)
- Develop input for various fact sheets and similar useful work products and web applications to increase ease/availability of information to COG's members
- Integrate technical work being done on behalf of the Blue Plains IMA Parties to evaluate and potentially update the RWFFM methodology/inputs

Major Work Projects/Activities

- Update existing or produce new **fact sheets, presentations & briefings** that address Potomac River loading trends & water quality, wastewater & stormwater management, and water infrastructure
- Based on ongoing member **assessment of the Chain Bridge monitoring program**, revise the regional monitoring program as directed; and potentially procure/implement new monitoring contract(s)
- Update & maintain regional water quality data records and wastewater database, which includes:
 - Wastewater, biosolids, CSO and septic data & process information, and sewershed GIS files; and confirm historical wastewater flow, nutrient load data – and regional land use data
 - Assess regional data as part of CBP's Watershed Model update efforts and Annul Progress runs
 - Continue to update wastewater flow projections and loading estimates for region to reflect annual COG demographic projections (Round 9.1), and compare to CBPC's projections
 - Update the RWFFM flow methodology and inputs based on the Blue Plains IMA work effort
 - \circ $\,$ Utilize the COG WWTP database & RWFFM, & CBP the database to update COG's GHG Inventory $\,$
 - Update regional water infrastructure data
- Continue to track, analyze, report on & provide timely input on CBP model inputs & results, including:
 - Data produced by the Version 6 of the CBP's Watershed Model and analyze its impact on the development of Phase III WIPs - given the post-2017 Midpoint Assessment results
 - Gap analyses produced by the states to determine source sector shortfalls & potential trading options to meet 2025 targets and resulting expectations for the next, Phase III WIPs
 - Load impacts of climate change & simulated sediment loads in urban areas, which are among the least settled areas of the CBP's modeling suite & may lead to model updates in the next few years
 - Load impacts of new growth to ensure that COG members' zoning policy, development/redevelopment standards & conservation measures are adequately accounted for
 - $\circ~$ Provide a regional summary of the new tree canopy data produced by the CBP modeling suite
- Work with the CBP, states other regional and national organizations to hold **workshops/work sessions** throughout the year to address various topics, including:
 - Results of the assessment of current Bay TMDL status, and outline what the next Phase III WIP expectations may be for COG's members
 - Updates on the latest nutrient reduction technology assessments for wastewater, stormwater, and agriculture and relate that to the region's current treatment technologies & innovations
 - Climate change studies & new analysis/implications and links between flooding & stormwater management that would:
 - Address new local climate initiatives & summarize CBP climate findings and proposed guidance for addressing climate in the Phase III WIPs
 - Evaluate available climate risk tools and track local climate-related assessments and projects to identify gaps and areas for collaboration
 - Potentially hold workshop(s) to consider potential regional approaches to analyzing climate impacts to infrastructure in parallel with the USACE DC Coastal Study
 - Evaluate a range of water quality issues, such as: road salts/chlorides, microplastics, CBP toxics activities focusing on PCBs & toxins/emerging contaminants. Evaluate all topics for relevance & importance to COG region, note holistic water impacts; & identify regional coordination options
 - Overview of water Infrastructure data work & input on regional Water Jobs initiatives
- Provide regional and Bay data/trend information in presentations to the WRTC and CBPC to report on:
 The status of COG region's Region Forward indicators & goals
 - o Bay Goals Water Quality Implementation Progress for wastewater & stormwater management
- Prepare recommendations to the CBPC on formal comments to be sent to Bay Program Partners, EPA & state governments regarding various Bay activities (to meet CBP's schedule), focused on:
 - Bay TMDL post-2017 Midpoint Assessment and development of the Phase III WIPs
 - o Bay TMDL 2-Year Milestones (which reflect progress toward meeting the 2025 Goal)
- Continue to provide input to CBP on behalf of COG's members through active staff participation on various Bay Program groups, including the Wastewater, Urban Stormwater, Land Use, Modeling Trading, Toxics, and Climate Change workgroups, as well as the Integrated Trends and Assessment Team (level of effort & focus based on issues of greatest importance/impact to COG's members)
- Support COG Board's Economic Competitiveness and other initiatives (e.g., prepare presentations, reference information and coordinate speakers for COG Board, CAOs, CBPC and WRTC presentations)

FY 2018 RWQM Work Program Areas – Detailed Descriptions									
3. Urban Watershed Management Services									
	FUNDING SOURCES								
PROGRAM AREA	Regional Water FundRegional Environ. FundCOG Member FeesGrants or OtherTotal								
A. Urban Stormwater Regulatory & Program Support	\$0	\$20,000	\$97,200	\$0	\$117,200				
B. Regional Agriculture & Forestry Management	\$1,500	\$48,500	\$28,000	\$331,130	\$409,130				
TOTAL	\$1,500	\$68,500	\$125,200	\$331,130	\$526,330				

Activity Description

This work program area complements the overall Regional Water Quality Management Program by working to reduce the flow of pollutants into surface waters. The work will be coordinated with other COG work programs and activities, as well as with work being done by COG members and other organizations to maximize synergies, avoid duplication of effort, and leverage resources.

Urban Stormwater Regulatory & Program Support

Anticipated activities for FY 2019 will be scheduled throughout the year and will include:

- Promote peer exchange of technical information among COG members and throughout the wider Bay region about stormwater permit compliance issues, BMP performance, program management and other priorities identified by the members.
- Update COG's regional summary of the financial resources available to pay for stormwater program requirements, including dedicated fee and tax revenue
- Update the information for COG's stormwater fact sheet to summarize how local governments in the region are meeting the challenge of rapidly expanding their stormwater program capacity
- Provide a briefing on the capacity of regional stormwater programs to meet permit and Chesapeake Bay restoration goals to COG's Bay Policy Committee and potentially to other elected officials.
- Analyze Chesapeake Bay Program modeling data for implications regarding stormwater BMP placement and performance
- Continue to provide staff support to the MACO-COG MD MS4 group in permit negotiations with MDE
- Collaborate with COG's Anacostia Restoration Program staff on information sharing & look for opportunities to share specialized information developed within the Anacostia region with the entire COG membership
- Continue to explore potential for regional collaboration on bacteria source tracking to update existing bacterial TMDLs and inform future ones
- Provide COG input on the VA DEQ Salt Management Strategy development and cross-share plans, processes, and monitoring for chlorides and salts between northern Virginia, District of Columbia and Maryland
- Provide ongoing maintenance and expansion of COG's stormwater procurement SharePoint database for sharing of regional stormwater solicitations and contracts

Watershed Management & Forestry Projects

- The Anacostia Watershed Restoration Partnership has initiated a social media and messaging campaign focused on getting people/residents to "Come to the River". Funding is solely provided by members of the Partnership, as well as through various grants; and
- Support the Community Forestry Network (CFN).
- Host two meetings in 2019

Major Work Products & Activities

- Urban Stormwater Regulatory and Program Support
- Update regional stormwater developments and fee/tax and cost estimate information in fact sheet

- Briefings to local government elected officials on stormwater issues
- Support meetings with other regional partners to advocate for and address shared stormwater issues with states/EPA
- Host technical and regional workshops:
 - Local bacterial source tracking, TMDL development and revisions
 - Stormwater BMPs accounting, crediting & verification under Chesapeake Bay TMDL/State WIP processes
- Work with other parties to convene a dialogue between environmental groups and local government stormwater managers on areas of mutual stormwater interest, such as education and outreach and permit compliance
- Build on collaboration between WRTC/CBPC and the Anacostia Restoration Partnership for information sharing and partnering on best practices, benchmarking, and grants and contracts
- Work with other parties to establish an option to pool portion of MS4 monitoring costs to address stormwater issues in lieu of individual/routine outfall monitoring requirements – and potential for regional procurement collaboration
- Track how Bay TMDL requirements are manifested in new MS4 Phase I and Phase II permit provisions
- Develop regional metrics for comparison of different local stormwater programs

FY 2019 RWQM Work Program Areas – Detailed Descriptions									
4. Water Resources Outreach, and Water Supply & Security Support									
		FL	INDING SO	URCES					
PROGRAM AREA	REA Regional Regional COG Water Environ. Fund Fund Fees Grants or Other Total								
A. Community Engagement Campaign	\$42,640	\$O	\$0	\$117,485	\$160,125				
B. Water Supply Emergency and Drought Management	\$756,000	\$928,600							
TOTAL \$215,240 \$0 \$0 \$874,000 \$1,089,24									

Activity Description

Working with COG members and affiliated water utilities, staff will address priority water resources projects and programs. The work is coordinated with other COG programs and activities, work being done by COG members and other organizations such as the Environmental Protection Agency (EPA), Department of Homeland Security (DHS), the Centers for Disease Control and Prevention (CDC), Maryland Department of the Environment (MDE), Virginia Department of Environmental Quality (VADEQ), Virginia Department of Health (VDH), District Department of Energy and Environment (DOEE), District Department of Health (DOH), and other private and public-sector organizations in order to maximize synergies, avoid duplication of effort, and leverage resources.

Anticipated activities for FY 2019 will occur throughout the year and include:

Community Engagement Campaign

• Implement the regional educational and information campaign elements: Wise Water Use, *Taplt* and Protect Your Pipes to promote responsible water use, accessible/sustainable access to drinking water, and protection of critical infrastructure.

Drinking Water Supply, Security & Drought Management

• Facilitate communication and notification among local and state governments, water utilities, the media and the general public for water supply emergencies, including drought.

- Integrate regional Homeland Security initiatives given the importance of and linkages to drinking water and source water protection to enhance preparedness, response and resiliency.
- Provide comprehensive and up-to-date information to enable timely regional responses to potential and actual water supply emergencies.
- Coordinate and develop regional water messaging for source water protection, infrastructure, water supply emergencies, preparedness and specific contaminants.

Drought Coordination Committee

- Implement a regional water supply work program to address water supply/drought management issues
- Monitor regional water supply conditions
- Prepare monthly drought outlook and conditions reports from April October
- Update the Water Supply Emergency and Drought Awareness Response Plan to outline steps needed to enter a drought 'WATCH' and other components
- Implement the regional Water Supply Emergency and Drought Plans in response to water supply emergency events

Water Security Work Group

- Coordinate and manage regional water security activities in monitoring, redundancy and resiliency, planning, facility hardening, notification, communication, mutual aid, and training and exercises.
- Assess risks, threats, and vulnerabilities of NCR source water, drinking water, treatment plants, distribution systems, and wastewater collection and treatment systems.
- Identify strategies and best practices to address the highest priority risks, threats, and vulnerabilities, including the growing threat from cyber-attacks
- Update the regional all-hazards Water Supply Emergency Plan

Major Work Products & Activities

- Continue a regional educational & outreach Community Engagement Campaign focused on Wise Water Use, Taplt and Protect Your Pipes messaging – including website & events (Year-round & Seasonal)
- Manage and coordinate Drought Coordination Committee and Drought Technical Committee during periods of drought (Summer)
- Track and monitor Potomac basin drought and water supply conditions and website updates
- Prepare monthly Regional Drought and Water Supply Outlook Reports (Seasonal: May Oct)
- Staff support for assessing Drought Watch Trigger and preparing updates to Response Plan
- Staff support and management coordination to the Water Security Work Group
- Implement the recommendations from the "Potomac Sheen After Action Report"
- Continue management and coordination of Regional Water Security Monitoring Network
- Continue management and coordination of NCRWARN (regional utility mutual aid network)
- Implement a regional table top exercise
- Update the WRTC & CBPC regarding drought reports & general briefings regarding regional security initiatives

\\mwcog.org\dfs\DEP\BUDGET and Financial\RegWaterFund - FY06 to Current and Next FY\Water - FY 2019 WP&B\Fy19 WP&B Draft & Ref Documents\DRAFT WP\RWQM WPB_ FY19 - DRAFT_for WRTC & IMA-RC Review.docx

Appendix A

Regional Water Fund and Regional Environmental Fund FY 2018 and FY 2019										
FY 2018 FY 2019 FY 2018 FY 2019										
Jurisdiction		gional Water nd Allocations		egional Water nd Allocations		Regional nvironmental nd Allocations		Regional nvironmental nd Allocations		
Alexandria, City of	\$	28,716	\$	29,837	\$	20,167	\$	20,981		
Arlington County	\$	41,987	\$	43,312	\$	29,487	\$	30,457		
Bowie, City of	\$	10,524	\$	10,732	\$	7,309	\$	7,468		
College Park, City of	\$	5,880	\$	6,169	\$	4,142	\$	4,338		
District of Columbia	\$	285,139	\$	296,820	\$	92,959	\$	96,512		
Fairfax County	\$	285,139	\$	296,820	\$	150,895	\$	154,580		
Fairfax, City of	\$	4,635	\$	4,629	\$	3,255	\$	3,255		
Falls Church, City of	\$	2,605	\$	2,676	\$	1,830	\$	1,882		
Gaithersburg, City of	\$	12,933	\$	13,296	\$	9,083	\$	9,350		
Greenbelt, City of	\$	3,983	\$	4,062	\$	2,797	\$	2,856		
Loudoun County	\$	74,033	\$	76,870	\$	49,884	\$	52,378		
Montgomery County	\$	285,139	\$	296,820	\$	119,129	\$	125,085		
Prince George's County	\$	285,139	\$	296,820	\$	104,637	\$	109,869		
Prince William County	\$	83,335	\$	87,502	\$	58,523	\$	61,449		
Rockville, City of	\$	12,746	\$	13,383	\$	8,980	\$	9,429		
Takoma Park, City of	\$	3,232	\$	3,394	\$	2,276	\$	2,388		
TOTALS \$1,425,165 \$ 1,483,141 \$ 665,353 \$692,27								\$692,279		