

Regional Water Quality Management Program

Annual Work Program & Budget – FY 2015

(July 1, 2014 – June 30, 2015)

WRTC Working Draft (as of 5/1/14)

*This is a Working Draft of the
FY 2015 RWQM Work Program and Budget
for review and input by the WRTC members.*

***Please send your
endorsement/comments to
Tanya Spano tspano@mwcoq.org
by Tuesday, May 13th***

*This draft document contains the proposed budget
revenue and budget allocations for FY 2015, as
well as descriptions of the proposed work program
elements – consistent with the funding and
program focus previously endorsed by the WRTC
and the Blue Plains IMA-RC (as of 2/27/14).*

*A general overview, a listing of regulatory drivers,
charts, and detailed background on various funds
will be provided in the final draft.*

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FUNDING AND BUDGET

COG's Regional Water Quality Management (RWQM) Program is primarily funded by the Regional Water Fund, with supplemental funding provided by allocations from the Regional Environmental Fund, and COG Membership Fees. In some cases grants and other funding sources support specific projects and activities.

The information below provides background on these funding sources, notes the levels of funding that were approved for FY 2015 (see **Table 1**, page 9, and outlines how those funds are proposed to be allocated to address the water resource priorities for FY 2015 (see **Table 2**, page 10). **Charts 1, 2 and 3** (page 11) also provide a graphical overview of the various funding sources, how those funds are allocated, and the key funders' contributions. A history of the various funding sources and how those funding levels were determined is outlined in the Appendices^{1,2}.

A. FUNDING SOURCES

Regional Water Fund (RWF) - The COG Board of Directors adopted its FY 2015 Work Program and Budget on January 8, 2014 which included a funding level of **\$1,337,441 for the RWF** – reflecting an increase of 1.8% compared with FY 2014, and after applying a 5% cap to jurisdictions that would have experienced a larger increase.

Regional Environmental Fund (REF) - When the COG Board of Directors adopted its FY 2015 Work Program and Budget on January 9, 2013, it also included a funding level for the **REF of \$606,871** –reflecting an increase of 1.6% compared with FY 2014. This amount also reflects the previous COG Board decision in FY 2013 to cap COG Membership Fee increases at no more than 5%.

COG Membership Fees & Other – All 22 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.” For FY 2015, the per capita rate was increased to \$0.70 (from \$0.67), with individual jurisdiction increases capped at 5%. Additional supplemental funds may also be provided from COG's building and other interest revenue.

Grants or Other – These funding sources recognize that some program areas are heavily dependent on local, state, and federal grants, and that some project work is

¹ Appendix A - COG'S REGIONAL WATER PROGRAMS – Background on Funding Sources

² Appendix B - COG'S REGIONAL WATER QUALITY MANAGEMENT PROGRAM – A Brief History

³ Town of Bladensburg is an Adjunct Member and pays a per capita rate of ½ of a regular member.

also supplemented by participants under separate funding formulas to better leverage COG’s regional work.

B. FUNDING LEVELS AND BUDGETS

Table 1 below lists the total budgets and funding contributions for COG’s two regional environmental funds (as approved by the COG Board on January 9, 2013). Table 2 indicates the sources of funds used to support the RWQM Program, and further allocates the funding to support specific program activities in FY 2015. Charts 1, 2 and 3 portray the percentages of various funding sources, overall distribution of RWQM program funds, and funding contributions for the Regional Water Fund.

| TABLE 1 | | |
|---|--|--|
| Local Government Contributions to COG’s Regional Environmental Funds – FY 2015 | | |
| Jurisdiction | Regional Water Fund Allocations | Regional Environmental Fund Allocations |
| Alexandria, City of | \$27,594 | \$18,817 |
| Arlington County | \$40,263 | \$27,457 |
| Bowie, City of | \$10,408 | 0 |
| College Park, City of | \$5,651 | \$3,853 |
| District of Columbia | \$268,094 | \$83,718 |
| Fairfax County | \$268,094 | \$140,606 |
| Fairfax, City of | \$4,367 | \$2,978 |
| Falls Church, City of | \$2,434 | \$1,660 |
| Gaithersburg, City of | \$11,862 | \$8,089 |
| Greenbelt, City of | \$3,885 | \$2,649 |
| Loudoun County | \$63,909 | \$43,092 |
| Montgomery County | \$268,094 | \$110,684 |
| Prince George’s County | \$268,094 | \$98,694 |
| Prince William County | \$79,700 | \$54,349 |
| Rockville, City of | \$11,886 | \$8,106 |
| Takoma Park, City of | \$3,106 | \$2,118 |
| TOTALS | \$1,337,441 | \$606,871 |

| COG Regional Water Quality Management : Annual Work Program and Budget - FY 2015 | | | | | |
|--|---------------------|------------------------|--------------------------|------------------|--------------------|
| Table 2 - Program Budget Allocations | | | | | |
| Program Area | Regional Water Fund | Regional Environ. Fund | COG Member. Fees & Other | Grants or Other | Total |
| I. Policy, Program Development & Outreach | | | | | |
| A. Water Resources Policy & Advocacy | \$205,000 | \$0 | \$0 | \$0 | \$205,000 |
| B. COG Board & Member Support | \$110,000 | \$0 | \$38,200 | \$0 | \$148,200 |
| C. Work Program Management | \$75,000 | \$0 | \$20,000 | \$0 | \$95,000 |
| D. Water Resources Outreach | \$40,000 | \$0 | \$0 | \$71,500 | \$111,500 |
| TOTAL | \$430,000 | \$0 | \$58,200 | \$71,500 | \$559,700 |
| II. Water Quality & Water Resource Management Technical Analysis | | | | | |
| A. Potomac & Local Water Quality Analysis | | | | | |
| 1. Regional Water Quality Database | \$170,000 | \$0 | \$0 | \$0 | \$170,000 |
| 2. Potomac Monitoring Contracts | \$156,429 | \$0 | \$0 | \$0 | \$156,429 |
| 3. Regional Wastewater Flow Forecast Model & WWTP Database | \$60,000 | \$0 | \$0 | \$0 | \$60,000 |
| 4. Bay Modeling Analysis | \$40,000 | \$0 | \$0 | \$0 | \$40,000 |
| 5. Potomac & Local Water Quality Management & Analysis | \$106,012 | \$0 | \$0 | \$0 | \$106,012 |
| B. Regulatory & Financial Analysis | | | | | |
| 1. Technical & Program Support to WRTC | \$245,000 | \$0 | \$0 | \$0 | \$245,000 |
| 2. Water Resource Emerging Issues | \$60,000 | \$0 | \$0 | \$0 | \$60,000 |
| TOTAL | \$837,441 | \$0 | \$0 | \$0 | \$837,441 |
| III. Watershed Management Services | | | | | |
| A. Urban Stormwater Regulatory Analysis and Information Exchange | \$0 | \$20,000 | \$30,000 | \$0 | \$50,000 |
| B. Watershed Management and Forestry Projects | \$0 | \$30,866 | \$38,200 | \$50,000 | \$119,066 |
| C. Green Infrastructure and Sustainable Agriculture Projects | \$0 | \$14,384 | \$44,915 | \$100,000 | \$159,299 |
| TOTAL | \$0 | \$65,250 | \$113,115 | \$150,000 | \$328,365 |
| IV. Water Supply & Security | | | | | |
| Water Supply Emergency and Drought Management | \$70,000 | \$0 | \$0 | \$0 | \$70,000 |
| GRAND TOTAL | \$1,337,441 | \$65,250 | \$171,315 | \$223,500 | \$1,795,506 |

ANNUAL WORK PROGRAM AND BUDGET

A. OVERVIEW

As with FY 2014, the FY 2015 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 utilities that provide wastewater treatment and drinking water services, and manage stormwater on behalf of the region. The program is designed to address priority issues in response to COG’s members’ needs, and to actively support and advocate on behalf of those members in a variety of technical and policy forums.

The FY 2015 RWQM Work Program continues to be organized into four key program areas that address a wide range of policy, advocacy, outreach, technical analysis and **CHART 2** s CBPC and WRTC committees. The tables that follow outline the individual program elements, their associated budgets and funding sources, as well as details regarding the key priorities and deliverables anticipated for FY 2015.

| RWQM Program Areas – FY 2015 | |
|--|--|
| I. Policy, Program Development & Outreach | |
| <i>Supports policy development, advocacy, CBPC support, program management, and outreach.</i> | |
| <ul style="list-style-type: none"> A. Water Resources Policy and Advocacy B. COG Board & Member Support C. Work Program Management D. Water Resources Outreach | |
| II. Water Quality & Water Resource Management Technical Analysis | |
| <i>Supports technical work for the WRTC on a wide range of water quality/water resource issues.</i> | |
| <ul style="list-style-type: none"> A. Potomac & Local Water Quality Analysis B. Regulatory & Financial Analysis | |
| III. Watershed Management Services | |
| <i>Supports work to address environmental initiatives with water quality implications/impacts and integrate efforts with other regional initiatives.</i> | |
| <ul style="list-style-type: none"> A. Urban Stormwater Regulatory Analysis & Information Exchange B. Watershed Management & Forestry Projects C. Green Infrastructure & Sustainable Agriculture Projects | |
| IV. Water Supply & Security | |
| <i>Supports work to address water supply and security issues with water quality/water resource implications and impacts</i> | |

Water Supply Emergency & Drought Management

B. PROGRAM DETAILS

Work Program Areas – Detailed Descriptions

I. Policy & Program Development

| PROGRAM AREA | FUNDING SOURCES | | | | |
|---|------------------------|------------------------|------------------|-----------------|------------------|
| | Regional Water Fund | Regional Environ. Fund | COG Member. Fees | Grants or Other | Total |
| A. Water Resources Policy & Advocacy | \$205,000 | \$0 | \$0 | \$0 | \$205,000 |
| B. COG Board & Member Support | \$110,000 | \$0 | \$38,200 | \$0 | \$148,200 |
| C. Work Program Management | \$75,000 | \$0 | \$20,000 | \$0 | \$95,000 |
| D. Water Resources Outreach | \$40,000 | \$0 | \$0 | \$71,500 | \$111,500 |
| Total | \$430,000 | \$0 | \$58,200 | \$71,500 | \$559,700 |

Committee Oversight: CBPC, WRTC, and CEC Public Information Officers Committee
Program Manager: Tanya Spano
Lead Staff/Senior Staff: Heidi Bonnaffon/Karl Berger/Steve Bieber

FY 2015 Priorities:

A. Policy & Advocacy

Bay TMDL & Regulatory

- Assess and provide comments on Chesapeake Bay Program activities, Bay TMDL developments, implementation of WIPs, and status of the states' Two-Year Implementation Milestones.
- Track implementation of the new Chesapeake Bay agreement and work to ensure local government input and involvement in the associated Management Strategies development process.
- Track nutrient trading and accounting for growth policy, and comment on state and federal policies.
- Assess and provide comments on federal/state legislative and regulatory initiatives regarding Bay restoration, local water quality, and related water resource issues.

Water Infrastructure, Affordability, Climate & Growth

- Work with U.S. Conference of Mayors, WEF, AWWA, and other national groups on ongoing dialogue with EPA over affordability and flexible permitting issues for all water quality issues.
- Advocate for the need for adequate funding to address requirements for the region's aging water resources infrastructure, and seek to balance regulatory requirements with those maintenance needs (see Section II.B for discussion of proposed regional water infrastructure forum).
- Coordinate with the *Region Forward Coalition*, the Climate, Energy and Environment Policy Committee (CEEPC) and other COG policy committees on growth and sustainability as well as cross-media issues and metrics - as they relate to water quality (e.g., water resources and energy use, and planning/land-use and water quality, and potential air-water benefits/credits).
- Educate other local government officials about the suite of water quality/water resource infrastructure issues and challenges; and advocate for regional policies on these priorities and federal and state initiatives; and to work toward consistency between these initiatives and protection of the region's local water quality/water resource needs as well as broader environmental and policy objectives. This

includes focusing on aging wastewater collection and water distribution systems, as well as legacy stormwater systems.

B. COG Board & Member Support

- Work with the CBPC and WRTC to continue to support COG Board’s Regional Infrastructure work plan, including preparation of material and presentations and speakers on a variety of water resource infrastructure issues.
- Respond to information requests and briefings on regional water resource issues in response to requests by the COG Board, COG policy committees, COG members, general public, and media requests; to support COG’s role as a clearinghouse for environmental information and a member service organization.
- Brief COG Board, CAOs, and local elected officials/senior management, on water resources issues and seek formal action as appropriate.
- Update the CBPC web page on the COG web site to provide timely summary of Bay restoration developments as they relate to local governments in the region.

C. Work Program Management

- Prepare an FY 2016 annual Work Program and Budgets (WP&B) in response to work session input.

D. Water Resources Outreach

- Continued implementation of a regional educational and information outreach effort – the **Community Engagement Campaign**. In FY 2015, the campaign elements will continue the FY’2013’s three outreach focus areas: **Wise Water Use**, **“TapIt”** to address accessible/sustainable access to drinking water, and **Do Not Flush** messaging. Use innovative means to target focus areas, and leverage funds to cost-effectively support the work of COG’s local governments/agencies.
- **Expand regional outreach efforts to support and communicate broader water resource priorities** to other local elected officials, state and federal officials, and the COG region (e.g., communicating water resources infrastructure needs and challenges, report on improvements in water quality in the Potomac, water resource work force/staffing challenges, etc.)

| Major Work Projects/Activities | Quarter | | | | Other |
|---|-----------------|-----------------|-----------------|-----------------|----------------------------|
| | 1 st | 2 nd | 3 rd | 4 th | |
| <ul style="list-style-type: none"> • Track the implementation of the new Chesapeake Bay agreement implementation and Management Strategies development, the progress of TMDL/WIP implementation and the achievement of 2-Year Milestones | XX | XX | XX | XX | Ongoing |
| <ul style="list-style-type: none"> • Update/report on water resource indicators/metrics in COG’s Region Forward initiative; & support CBPC/WRTC in these efforts | XX | | XX | | Per schedule |
| <ul style="list-style-type: none"> • Meetings, conference calls & events in support of the CBPC: <ul style="list-style-type: none"> ○ 6 meetings, including invited guest speakers, including: <ul style="list-style-type: none"> ▪ Presentations on Water Infrastructure issues ▪ Annual Bay-Water Quality Forum ○ Special sessions/joint meetings with Federal & state rep.’s, & COG’s CEEPC & other committees/organizations | XX | XX | XX | XX | Bi-monthly & As required |
| <ul style="list-style-type: none"> • Briefings/presentations/testimony for COG Board, its members, and to/for local elected officials & others • Respond to COG member & media information requests | | | | | 4-6 per year & As required |
| <ul style="list-style-type: none"> • Mid-year review and draft policy priorities for CBPC | | | XX | XX | Annually |



| | | | | | |
|--|----|----|----|----|-------------------------|
| • Annual Work Program & Budget for FY 2016 | | | | | |
| • COG staff to conduct annual employee performance reviews • Program management and oversight | XX | | | | Annually & Ongoing |
| • Continue a regional educational & outreach Community Engagement Campaign focused on Wise Water Use, TapIt and Do Not Flush messaging – including website & events | XX | XX | XX | XX | Year-round & Seasonal |
| • Regional outreach products to support key events & initiatives (e.g., infrastructure event, water quality report) | | XX | | XX | Based on Board Schedule |

Work Program Areas – Detailed Descriptions

II. Water Quality & Water Resource Management Technical Analysis

| PROGRAM AREA | FUNDING SOURCES | | | | |
|--|---------------------|------------------------|------------------|-----------------|------------------|
| | Regional Water Fund | Regional Environ. Fund | COG Member. Fees | Grants or Other | Total |
| A. Potomac & Local Water Quality Analysis | | | | | |
| 1. Regional Water Quality Database | \$170,000 | \$0 | \$0 | \$0 | \$170,000 |
| 2. Potomac Monitoring Contracts (i.e., Chain Bridge & Little Falls Gage) | \$156,429 | \$0 | \$0 | \$0 | \$156,429 |
| 3. Regional Wastewater Flow Forecast Model & WWTP Database | \$60,000 | \$0 | \$0 | \$0 | \$60,000 |
| 4. Bay Modeling Analysis | \$40,000 | \$0 | \$0 | \$0 | \$40,000 |
| 5. Potomac & Local WQ Management Analysis & Reporting | \$106,012 | \$0 | \$0 | \$0 | \$106,012 |
| Subtotal | \$532,441 | \$0 | \$0 | \$0 | \$532,441 |

Committee Oversight: WRTC
Program Manager: Karl Berger (WQ & Modeling) and Tanya Spano (WW)
Lead Staff/Staff: Christine Howard/Mukhtar Ibrahim/Nasser Ameen/Lana Sindler/Amanda Campbell

FY 2015 Priorities:

Potomac River Monitoring

- Continue to fund Virginia Tech’s Occoquan Watershed Monitoring Laboratory (OWML) to conduct water quality monitoring at Chain Bridge on the Potomac River. The OWML effort provides an assessment of water quality that is independent of the joint U. S. Geological Survey/Chesapeake Bay Program (USGS/CBP) monitoring effort at Chain Bridge.
- Continue to provide about half the funding to maintain the USGS’ stream flow gage at Little Falls in the Potomac River. Results from the gauge are necessary to compute Chain Bridge load estimates by both the OWML and USGS/CBP efforts.

Potomac River Trends Analysis

- Focus on use of OWML results and other data to enhance the understanding of the region’s water quality

managers on what's happening in the Potomac River, with a particular emphasis on the upper Potomac River estuary, where the vast majority of wastewater flow from the region is discharged and where much of the stormflow from the region's urban areas also impacts the river.

- Use OWML results to report on long-term trends in water quality parameters at the Potomac River fall line at Chain Bridge. Compare trend results using OWML data to those produced using USGS data.
- Compare both trend results and the long-term modeling record to Chesapeake Bay Program watershed model results.
- Continue participation in a USGS/CBP effort to understand the observation of increasing load trends for some water quality parameters in recent years in the fall-line flows at Chain Bridge.
- Analyze the impact of these inputs on water quality conditions in the tidal fresh estuary, taking into account groundwater lag time, legacy sediment and the possibility of non-linear threshold responses by living resources.
- Present results to the Regional Water Quality Monitoring Subcommittee at several workshops and coordinate the members' efforts to explain what's happening and identify issues to be raised with the region's water quality managers and the members of COG's WRTC and CBPC.
 - Document the findings in several expansions of COG's Potomac Water Quality Fact Sheet.

Local Stream Health Analysis

- Work with members to identify ways to track and characterize the current status of stream health in the region, including summarization of 303d and TMDL listings, as well as benthic index scoring methods.
 - Report on results as one of COG's Region Forward goals.

Regional Water Quality Database

- Continue efforts to re-organize the water quality monitoring data generated by or reported to COG to focus on the core information of greatest use to our members and avoid duplication with databases maintained by other agencies in the region.
- Update COG's Website to provide a user-friendly location for accessing regional data and contact information and to promote the exchange of monitoring data, watershed programs, wastewater/stormwater implementation programs and related activities.

Bay Program Modeling Analysis

Bay Program TMDL Implementation & Modeling Tools

- Continue to focus on the technical aspects of the Bay Program's efforts to implement the Bay TMDL and the associated State/District's Phase II watershed implementation plans (WIPs), including State/District proposed 2014-15 milestones.
- Continue to evaluate Bay Program efforts to upgrade the data and tools to be used in the 2017 mid-course evaluation process for the Bay TMDL, including
 - Updated calibration and other details of Version 6 of the Chesapeake Bay Watershed Model
 - Land use categories/data for the model
 - Assumptions for urban loads and BMPs
 - Assumptions for septic/on-site systems and biosolids land application
- Quantify the impact of alternative air quality management scenarios on nitrogen loads and assess how the watershed model is addressing the impacts of climate change.
- Track efforts to update the Chesapeake Bay Program's various models to reflect Climate Change impacts

and implications for water quality and the Bay TMDL.

Regional Wastewater Flow Forecast Model (RWFFM)

- Finalize updates to the RWFFM, incorporate the results of COG’s Round 8.2 Cooperative Forecasting efforts and produce **wastewater forecasts for the COG region**.
- Complete the inventory of the region’s WWTPs to:
 - Confirm nutrient cap load values and treatment capacity timelines, as well as other process information, apply the RWFFM results, and compare load caps to expected long-term growth in the region. Also assess potential load capacity versus hydraulic capacity constraints for the region’s wastewater plants and growth implications
 - Analyze links with COG’s Region Forward/Economy Forward efforts and Activity Centers
 - Begin to review and confirm/correct CBP’s assumptions regarding areas served by septic/distributed systems.

Regional Wastewater Database

- In support of ongoing regional infrastructure work, continue to update regional database of key plant process/operations, permit requirements, greenhouse gas inventories, climate change/sustainability efforts, energy demands, water infrastructure features, service areas, nutrient reduction implementation status, and various sector innovations.
 - Coordinate similar efforts for the region’s water utilities
 - Use this information to report on COG’s Region Forward and CEEPC goals.

| Major Work Projects/Activities | Quarter | | | | Other |
|--|-----------------|-----------------|-----------------|-----------------|----------------------------|
| | 1 st | 2 nd | 3 rd | 4 th | |
| <ul style="list-style-type: none"> • Prepare additional fact sheets to complement overall Potomac Water Quality Fact Sheet <ul style="list-style-type: none"> • Chain Bridge loads fact sheet • Potomac estuary SAV fact sheet • Algal bloom fact sheet | | XX | XX | XX | |
| <ul style="list-style-type: none"> • Prepare template for regional stream health assessment • Update the regional state/District assessments of ‘impaired waters’ (303d & TMDLs) listings | | XX | | XX | |
| <ul style="list-style-type: none"> • Update regional water quality database inventory on COG Website & use information to inform COG’s regional infrastructure efforts | XX | XX | XX | XX | Ongoing |
| <ul style="list-style-type: none"> • Manage contracts for OWML sampling/data analysis at Chain Bridge & cost-share agreement for Little Falls gage data | XX | | | XX | Annually & As required |
| <ul style="list-style-type: none"> • Continue to update wastewater flow projections and loading estimates for region to reflect annual COG demographic projections, and compare to CBPC’s projections • Continue to work with Blue Plains and other COG wastewater plants to identify potential influent nutrient load versus hydraulic capacity constraints | | XX | XX | | Estimated timing of events |
| <ul style="list-style-type: none"> • Provide data/trend information in presentations to WRTC, CBPC and other audiences • Respond to water resource data/information requests • Report on status of Region Forward indicators & goals: <ul style="list-style-type: none"> • Bay Goals - Water Quality Implementation for | XX | XX | XX | XX | Ongoing |

| | | | | | |
|--|----|--|----|--|----------------------------|
| Wastewater & Stormwater management • Local Stream Health | | | | | |
| • Hold two work sessions for members that focus on water quality monitoring results | XX | | XX | | Estimated timing of events |

Work Program Areas – Detailed Descriptions

II. Water Quality Technical Analysis

| PROGRAM AREA | FUNDING SOURCES | | | | |
|--------------|---------------------|------------------------|------------------|-----------------|-------|
| | Regional Water Fund | Regional Environ. Fund | COG Member. Fees | Grants or Other | Total |

B. Regulatory and Financial Analysis

| | | | | | |
|--|------------------|------------|------------|------------|------------------|
| 1. Technical & Program Support to WRTC | \$245,000 | \$0 | \$0 | \$0 | \$245,000 |
| 2. Water Resource Emerging Issues | \$60,000 | \$0 | \$0 | \$0 | \$60,000 |
| Subtotal | \$305,000 | \$0 | \$0 | \$0 | \$305,000 |

Committee Oversight: WRTC
 Program Manager: Tanya Spano
 Lead Staff /Staff: Amanda Campbell/Karl Berger/Lana Sindler/ Heidi Bonnaffon/Nasser Ameen

FY 2015 Priorities:

Water Resources Infrastructure

- Continue to work with member governments and water/wastewater utilities to document the status of water quality infrastructure in the region and the financial and regional economic development implications of deferring maintenance of existing infrastructure. This will include:
 - Work with COG member governments/water utilities to compile regional cost estimates of what it will cost to meet TMDL and related water resource/infrastructure requirements. Focus will include: aging wastewater collection and water distribution systems, as well as legacy stormwater systems.
 - Work with national organizations and others to compare data against industry metrics and national benchmarks to frame this issue for elected officials and to put the region’s infrastructure costs into a broader context.
 - Develop comprehensive cost and rate information database for region to capture scope and financial implications of water infrastructure in support of COG’s members and the COG Board’s Regional Infrastructure priority.
 - Continue work with the Water Environment Federation and utility managers in the region to organize a **regional water resources infrastructure forum** on challenges and opportunities for the COG region.
 - Link efforts to COG’ **Region Forward, Economy Forward** and **Activity Center** efforts.

Regulatory Initiatives

- Continue to assess opportunities for more **flexible permitting** in the region and use of **adaptive management** as EPA /States make water quality and permitting decisions.

Climate Change and Other Emerging Issues

- Continue efforts to assess the significance of other water resource issues (e.g., growth, sustainability,

| <p>Climate Change, and emerging compounds of concern) and the potential impacts/implications of these issues to the COG region.</p> <ul style="list-style-type: none"> For climate change issues, coordinate among water resource infrastructure/facilities and other agencies to share resources to address climate-related impacts on water resource infrastructure/facilities. Continue to coordinate with the Climate Energy & Environment Policy Committee to highlight and support implementation of water-energy nexus related measures in the Climate Action Plan. | | | | | |
|--|-----------------|-----------------|-----------------|-----------------|---------------------------|
| Major Work Projects/Activities | Quarter | | | | Other |
| | 1 st | 2 nd | 3 rd | 4 th | |
| <ul style="list-style-type: none"> Prepare recommendations to the CBPC on formal comments to be sent to Bay Program Partners, EPA & state governments regarding the new Bay agreement, Bay TMDL, Phase II WIPs, & 2 Year Milestones processes; and related water resource issues/initiatives | XX | XX | XX | XX | Quarterly & 4-6 per year |
| <ul style="list-style-type: none"> Meetings, conference calls, work sessions, & events in support of the WRTC, its work groups & subcommittees: <ul style="list-style-type: none"> 6 meetings, including inviting guest speakers Hold special work sessions/forums to address key issues and get input from WRTC and other regional experts on: <ul style="list-style-type: none"> Infrastructure and rates/affordability Share sustainability tools and best practices for including energy efficiency, alternative energy, water reuse, and climate vulnerability assessments Update Climate Change data for Water Sector (e.g., related to CEEPC's Goals) | XX | XX | XX | XX | Bi-monthly & As required |
| <ul style="list-style-type: none"> Prepare presentations , reference information and coordinate speakers for COG Board, CAOs, CBPC and WRTC presentations as part of FY 2015's COG Board Regional Infrastructure priority Organize a regional forum/webinar on water resource infrastructure needs and challenges, and rates/affordability issues - coordinating with COG's member governments/water utilities, & national organizations Produce factsheets/reports as needed to summarize regional needs and issues | XX | XX | XX | XX | Ongoing, Estimated timing |
| <ul style="list-style-type: none"> Track the development of new data and assumptions for use in an updated version of the Watershed Model to be used in the Bay Program's 2017 Mid-course Evaluation and provide member input to Bay modeling efforts through staff participation on various Bay program groups, including the Wastewater, Urban and Land Use, Monitoring and Trading workgroups, and the Modeling Review Team. | XX | XX | XX | XX | Monthly |

| Work Program Areas – Detailed Descriptions | | | | | |
|--|--|-------------------------------|-------------------------|------------------------|------------------|
| III. Watershed Management Services | | | | | |
| PROGRAM AREA | FUNDING SOURCES | | | | |
| | Regional Water Fund | Regional Environ. Fund | COG Member. Fees | Grants or Other | Total |
| A. Urban Stormwater Regulatory Analysis & Information Exchange | \$0 | \$20,000 | \$30,000 | \$0 | \$50,000 |
| B. Watershed Management & Forestry Projects | \$0 | \$30,866 | \$38,200 | \$50,000 | \$119,066 |
| C. Green Infrastructure & Sustainable Agriculture Projects | \$0 | \$14,384 | \$44,915 | \$100,000 | \$159,299 |
| Total | \$0 | \$65,250 | \$113,115 | \$150,000 | \$328,365 |
| Committee Oversight: | WRTC, CBPC, & Regional Agricultural Work Group | | | | |
| Program Manager: | Steve Bieber | | | | |
| Lead Staff / Senior Staff: | Karl Berger (A) / Phong Trieu (B & C) / Brian LeCouteur (C) | | | | |
| FY 2015 Priorities: | | | | | |
| A. Urban Stormwater Regulatory Analysis & Information Exchange | | | | | |
| <ul style="list-style-type: none"> • Continue to promote technical information exchange among COG members about stormwater management and the implications on local water quality and the Bay/local TMDL processes. • Update regional stormwater fee and cost estimate information and analysis of stormwater regulatory developments to the region's elected officials. | | | | | |
| B. Watershed Management & Forestry Projects | | | | | |
| <ul style="list-style-type: none"> • Provide limited direct staff support and opportunities to leverage grant support to address: <ul style="list-style-type: none"> ○ Watershed monitoring studies ○ Assessment of physical, chemical and biological conditions of local streams ○ Riparian forest buffer and watershed evaluations using various environmental indicators, remote sensing and GIS applications, evaluation of the performance of various urban stormwater Best Management Practices ○ Provide expertise and guidance to COG members on - stream restoration, fish passage, stormwater management, wetland creation and riparian habitat restoration monitoring, design and technical, GIS-related watershed evaluations • Continue cross-cutting work on the development of a pilot, phase one, regional urban tree canopy analysis and management strategy to help achieve area-wide expansion of tree canopy cover; providing water quality, - air quality, and other ancillary benefits. Link this work to reassessing the watershed health indicators for Region Forward baseline report. • Support the Community Forestry Network (CFN); amend and update the green infrastructure database for the Washington Metropolitan Area • Conduct several stream and riparian buffer assessment studies | | | | | |
| C. Green Infrastructure & Sustainable Agriculture Projects | | | | | |
| <ul style="list-style-type: none"> • Support ongoing work for the Regional Agricultural Initiative including marketing of local agriculture, mapping agricultural lands, further analysis of farm markets and support of the Regional Agricultural Workgroup (RAW) to explore opportunities that support agricultural-related activities. • Support efforts and provide advice to the CBPC and COG Board on Region Forward initiatives in areas such | | | | | |

| <p>as climate adaptation, land use, stormwater management (e.g., green streets), local agriculture, and locally grown food.</p> <ul style="list-style-type: none"> • Provide limited direct staff support and opportunities to pursue grant and partnership opportunities which promote and/or enhance COG member green infrastructure and agricultural programs and initiatives for the protection and enhancement of green space for agriculture, recreation, wildlife habitat, and watershed protection. Leverage grant support to include: <ul style="list-style-type: none"> ○ Maintaining current land cover mapping databases using remote sensing and GIS applications ○ Supporting ongoing regional Green Infrastructure initiatives ○ Integrate the Region Forward initiative and links to local food production and consumption, climate adaptation, stormwater management ○ Continue work for the Regional Agricultural Initiative including quantification of local food production, marketing local agriculture, mapping agricultural lands, and further analysis of farm markets ○ Support the Regional Agricultural Workgroup (RAW) to explore opportunities that support agricultural-related priorities and activities ○ Maintain the www.nationalcapitalfarms.org Web site | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|---------------------------|
| Major Work Projects/Activities | Quarter | | | | Other |
| | 1st | 2nd | 3rd | 4th | |
| • Stormwater updates for CBPC, COG Board or others | | | | | Schedule TBD |
| • Updated regional stormwater fee survey | XX | | XX | XX | Ongoing |
| • Updated regional stormwater fact sheet | XX | XX | | | |
| • Conduct (separately or in concert with other organizations) workshops on a variety of stormwater topics: <ul style="list-style-type: none"> • Green Streets • BMP cost/performance • Public-private partnerships • Stream restoration | | | | | Schedule TBD |
| Projects: | | | | | |
| ○ District of Columbia-Pope Branch Pre-Stream Restoration Monitoring | XX | XX | XX | XX | |
| ○ Prince George’s County – Northwest and Northeast Branch-River Herring and Resident Fish Habitat Utilization | | | XX | XX | |
| ○ Montgomery County & Prince George’s County-Northwest Branch Streambank Chemistry-Related Assistance | | | XX | XX | |
| ○ District of Columbia - Watts Branch Benthic Stream Assessment Study | XX | XX | XX | XX | |
| ○ Develop a pilot, regional urban tree canopy analysis and management plan in coordination with CBPC & CEEPC | XX | XX | XX | XX | |
| ○ District of Columbia – Regional Urban Tree Canopy and Land Use/Land Cover Analysis | XX | XX | XX | XX | |
| ○ District of Columbia Waste Wood Facility/Marshalling Yard Assistance (Urban Timber Utilization) | XX | XX | XX | XX | |
| • Support for the Region Forward initiative and tracking/reporting of indicators and goals associated with: <ul style="list-style-type: none"> ○ Watershed Health | XX | XX | | | Based on program schedule |

| | | | | | |
|--|-----------|-----------|-----------|-----------|------------------|
| ○ Forest Coverage/Tree Canopy | | | | | |
| ○ Acres of Impervious Surfaces | | | | | |
| • Support for CFN meetings | | | | | 3X/year |
| • Regional Green Infrastructure Database Update | | | | XX | |
| • Support for the Regional Agricultural Workgroup | XX | XX | XX | XX | |
| • Regional Agricultural Mini-Workshops | | | XX | XX | |
| • Regional Agricultural Survey | XX | XX | | | |
| • Other potential grant supported project deliverables | | | | | TBD |
| • Presentations to the WRTC and CBPC | | | | | 1-2X/year |

| Work Program Areas – Detailed Descriptions | | | | | |
|--|---|-------------------------------|-------------------------|------------------------|--------------|
| IV. Water Supply and Security | | | | | |
| PROGRAM AREA | FUNDING SOURCES | | | | |
| | Regional Water Fund | Regional Environ. Fund | COG Member. Fees | Grants or Other | Total |
| Water Supply Emergency and Drought Management | \$70,000 | \$0 | \$0 | ** | \$70,000 |
| Committee Oversight: | Drought Coordination Committee, Water Security Work Group, WRTC & CBPC | | | | |
| Program Manager: | Steve Bieber | | | | |
| Lead Staff / Senior Staff: | Christine Howard (Drought Coordination); Heidi Bonnaffon & Julie Karceski (Water Security) | | | | |
| <i>**Note: Additional program funds are provided annually through the regional Urban Area Security Initiative (UASI) grants & a U.S. EPA STAG grant.</i> | | | | | |
| FY 2015 Priorities: | | | | | |
| <ul style="list-style-type: none"> • Continued focus on communication and coordination among local and state governments, water supply utilities, the media and general public in the event of serious droughts or other water supply emergencies. • Continue to integrate efforts with regional Homeland Security issues given importance of and linkages between drinking water/source water protection issues in response to potential security threats and those associated with drought or other natural phenomenon. • Continue to focus on providing comprehensive and up-to-date information to these committees to enable the region to provide timely regional responses to potential and actual water supply/drought conditions as well as water security issues. • Provide continued technical, policy, and staff support to: <ul style="list-style-type: none"> • COG’s Drought Coordination Committee: <ul style="list-style-type: none"> • Implement a regional water supply work program to address water supply/drought management issues • Provide continued monitoring of regional water supply conditions • Prepare monthly drought outlook and conditions reports, • Update Water Supply and Drought Awareness Response Plan to outline steps needed to enter a drought ‘WATCH’ • Implement the regional Water Supply Emergency Plan in response to drought events and other water supply issues. • The regional Water Security Work Group: <ul style="list-style-type: none"> • Coordinate and manage regional water security activities in areas such as modeling, monitoring, redundancy and resiliency, operational planning, identification of best practices, facility hardening, mutual aid, and training and exercises; • Continue to assess risks, threats, and vulnerabilities of the NCR’s drinking source water, drinking water 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. | | | | | |

| Major Work Projects/Activities | Quarter | | | | Other |
|---|-----------------|-----------------|-----------------|-----------------|---------------------------|
| | 1 st | 2 nd | 3 rd | 4 th | |
| <ul style="list-style-type: none"> Manage and coordinate Drought Coordination Committee and Drought Technical Committee during periods of drought | XX | XX | | XX | Summer / As required |
| <ul style="list-style-type: none"> Track and monitor Potomac basin drought and water supply conditions and website updates | XX | XX | XX | XX | Year-round / Ongoing |
| <ul style="list-style-type: none"> Monthly Regional Drought and Water Supply Outlook Reports | XX | XX | | XX | Seasonal (May – Oct) |
| <ul style="list-style-type: none"> Staff support for assessing Drought Watch Trigger and preparing updates to Response Plan | | | | | Timing TBD |
| <ul style="list-style-type: none"> Staff support and management coordination to the Water Security Work Group Continued management and coordination of Regional Water Security Monitoring Network | XX | XX | XX | XX | Ongoing / As required |
| <ul style="list-style-type: none"> Continued management and coordination of NCRWARN (regional utility mutual aid network) | XX | XX | XX | XX | Ongoing / As required |
| <ul style="list-style-type: none"> Implementation of a regional table top exercise | | | | | Timing TBD |
| <ul style="list-style-type: none"> Updates to WRTC regarding drought reports & general briefings regarding regional security initiatives | XX | | XX | | Periodic |
| <ul style="list-style-type: none"> Support for the Region Forward initiative and tracking/reporting of indicators and goals associated with: <ul style="list-style-type: none"> Water Usage (per capita) | XX | XX | | | Based on program schedule |