



COG WATER RESOURCES PROGRAM UPDATES GENERAL WATER RESOURCES

(As of 7/20/16)

Updates on work supported by COG's RWQM Work Program, and energy, climate, and sustainability activities supported by COG's Department of Environmental Programs

Water Quality & Source Water Protection

COG Contact

Regional Salt Workshop May Lead to Regional Actions

About 60 officials from the transportation, environmental and other sectors in the region discussed what can be done to mitigate the long-term increase in salt concentrations in area waters at a COG workshop June 27. The workshop, a joint effort of COG's environmental and transportation staff, featured presentations on the impacts of increasing salt levels on aquatic resources in the environment, on drinking water quality and on the area's infrastructure.

A panel of state and federal transportation officials discussed what they are doing to reduce salt use while maintaining public safety. Another panel of state environmental regulators discussed their plans for issuing TMDLs that would regulate chloride levels in local streams. Another speaker discussed the development of a regional chloride management plan in the Twin Cities region of Minnesota, where there are more than 35 individual chloride TMDLs.

The workshop attendees agreed that a collaborative regional approach to many aspects of the issue, such as road salt management by transportation agencies and public education, would be a good goal for the Washington region and might avert the need for more extensive water quality regulations. COG staff is currently exploring its options for supporting such an effort and will report to the CBPC at a future meeting.

Presentations and additional information from the workshop can be found here: <https://www.mwcog.org/events/2016/6/27/salt-management-in-washington-region-environmental-and-transportation-perspectives/>

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Potomac Water Quality Trends Workshop Provides Information on How Well Bay Restoration Efforts Are Working

Members of COG's Waters Resources Technical Committee and other environmental officials from the region attended a COG workshop to learn more about the most recent water quality monitoring results for the Potomac River watershed upstream of the Chain Bridge fall line. It comprises about 90 percent of the total watershed and is a major driver of water quality in the river's tidal estuary.

Scientists from the U. S. Geological Survey and the Occoquan Watershed Monitoring Laboratory at Virginia Tech University (OWML), both of whom operate Potomac fall line monitoring stations, presented results on trends in various water quality parameters. The OWML effort is funded by COG's members and provides an independent assessment of water quality in the watershed. In general, the data indicates that levels of nutrients and sediment are declining in the watershed, presumably as a result of wastewater treatment improvements and the implementation of stormwater and agricultural BMPs under the Bay restoration effort.

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COG staff will continue to track this data and coordinate the development and dissemination of local data on land use, wastewater flow and other factors that inform the scientists' efforts to explain water quality trends.

Presentations and additional information from the workshop can be found here: <https://www.mwcog.org/events/2016/6/13/potomac-water-quality-trends-workshop/>

Water Infrastructure

Water Infrastructure Survey

COG staff will be transmitting surveys to COG's local governments and water utilities to help update and expand on the region's water infrastructure database. This data will be used to help ensure that accurate and up-to-date data for the region's wastewater, drinking water and stormwater systems and facilities is available to support various COG factsheets, reports and in some cases to ensure that CBP modeling data for the region is accurate.

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Wastewater

RWFFM & WWTP Data

COG is updating the Regional Wastewater Flow Forecast Model (RWFFM) to generate new flow projections for COG's WWTPs, based on the COG's recently approved Round 9 demographic data trends. COG is also working to send out a survey to update/verify the historical wastewater data for the region. This will not only help provide accurate and up-to-date data for various COG factsheets and other water infrastructure summaries, but the data will also ensure that the inputs to the CBP's models are accurate.

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State of the Art (SOA) / Enhanced Nutrient Reductions (ENR)

COG's wastewater treatment plants have either completed or will complete their plant upgrades to meet stricter SOA/ENR nitrogen requirements for the Bay TMDL. Based on the latest updates all of the plant upgrades will have been completed by 2018 – well in advance of the current 2025 Bay Program deadline – which COG reflected in its Region Forward goals. This has greatly improved water quality in the COG region. Note: Many plants are actually treating to low nitrogen concentration levels now; which can occur when their current flows are less than their rated capacity. These upgrades will ensure that capability is available to treat future growth in the region.

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EPA, States Acknowledge Success of Wastewater Treatment Plants' Contributions to Bay Restoration

At a June 14th press event held at Blue Plains, **EPA recognized the strides that the wastewater sector has made towards Bay Restoration Goals, by completing plant upgrades nearly a decade ahead of schedule.**

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Key features included implementation of wastewater treatment plant upgrades ahead of the 2025 schedule and in many cases, reducing nitrogen levels/loads now in advance of the 2025 schedule. For the COG region, this has resulted in **documented improvements water quality in the upper portion of the Potomac River.**

For the more detail see the COG news release:

<https://www.mwcog.org/about-us/newsroom/2016/06/22/epa-states-acknowledge-success-of-wastewater-contributions-to-chesapeake-bay-restoration/>

Stormwater

Stormwater Coalition

COG staff, working with Virginia Municipal Stormwater Association (VAMSA), will be tracking the work of the newly formed stormwater coalition, the National Municipal Stormwater Alliance, because its goals are to advocate on behalf of MS4 permittees, seek regulatory changes that improve efficiency/effectiveness, and to engage the public in supporting stormwater management. VAMSA is a member. To learn more, visit their website: www.nationalstormwateralliance.org

MS4 Permit Litigation Settled in MD

In a ruling issued in March, the Maryland Court of Appeals upheld the MS4 Phase I permits that the Maryland Department of the Environment has issued to a series of Maryland counties, including Montgomery and Prince George's counties. A number of environmental organizations had brought suit against the permits in a case that was originally launched against the Phase I permit MDE issued to Montgomery County in 2010. The ruling clears the way for further action on developing a new MS4 permit for Montgomery County. Separate litigation remains in place on four other Phase I permits for Maryland counties, including Frederick and Charles counties.

Stormwater Procurement

COG staff are working with regional stormwater programs to compile and cross-share RFPs and bid agreements, and to see whether a regional tree planting contract or rider clause will be feasible for the COG region. More details on stormwater procurement and cost data will be shared a future meeting.

Stormwater Workforce Development

The Aspen Institute Workforce Development project updates are as follows:

- COG staff, in partnership with the Center for Watershed Protection and the Environmental Finance Center, have developed a scope of work to complete a Green Infrastructure Workforce Analysis and have received \$3,000 in Technical Assistance funds from the Aspen Institute to start the analysis.
- Ongoing Partnership initiatives include addressing capacity barriers for small contractors and addressing the recruiting and preparing un/underemployed potential workers. These efforts are being led by the District Department of Energy & Environment and Prince George's Green, respectively.
- COG staff will be convening a subgroup to address the question of how to best compile green infrastructure (GI) job descriptions, increase the pool of trained and qualified contractors, and connect GI workers to jobs.

DC Water and the Water Environment Federation Launch Development of a National Green Infrastructure Certification Program (NGICP)

The objectives of the NGICP are to ensure that a skilled labor pool is prepared to install, inspect, and maintain green infrastructure (GI) facilities, to support sustainable performance of GI practices, and to create perennial GI jobs that will pay a living wage to un/underemployed local residents. The program is being built in accordance with the ANSI/ISO/IEC accreditation guidelines for certifying individuals and recertification will be required to ensure that workers stay current with rapidly evolving GI practices.

The NGICP Governing Body is currently working on Program policies and procedures, and the development of the curriculum and training materials is underway. The first cohort of 20-25 trainees, all residents of the District, will be certified in January 2017. Additional Program information is available on the website www.ngicp.org.

COG staff are coordinating with DC Water and WEF as part of the on-going Communities that Work Workforce Development Project.

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Drinking Water

Regional Water Supply and Drought Report Released – July 2016

The Regional Drought and Water Supply Status and Outlook for July 2016 is now available to download at your convenience – click [HERE](#) for a PDF version of the report. A few highlights from the report are noted below:

- The [U.S. Drought Monitor](#) released on July 7, 2016 indicates that the region is currently free of drought
- There is a below [normal probability of releases](#) from the Washington Metropolitan area's back-up water supply reservoirs for the 2015 summer and fall seasons
- Stream flows measured at [Point of Rocks](#) and [Little Falls](#) are above median levels
- Most of the [groundwater monitoring wells](#) in the region report normal to above normal levels
- [Precipitation levels](#) in the Potomac River basin were below normal in June by 0.01 inch

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Climate, Energy, and Sustainability

Climate and Energy Action Strategy

In 2016, the Climate, Energy, and Environment Policy Committee (CEEPC), is updating the [2013-2016 Climate and Energy Action Plan](#). The 2013-2016 plan contains recommended actions for local governments in the areas of greenhouse gas inventories and reduction plans, built environment and infrastructure, renewable energy, transportation and land use, sustainability and resiliency, and public outreach. The update will incorporate feedback from the Multi-Sector Working Group actions survey and COG's Climate & Energy survey. The new Strategy will cover the period of 2017-2020.

Regional Renewable Energy Study

A [recent study](#) by the firm ICF International found that the COG region surpassed its Climate & Energy goal of reaching 5,000 electricity-grid connected renewable energy systems by 2015. According to the study, 13,600 systems were installed in the region by 2015. The study also found that the region surpassed its goal of 10% renewable energy generation by 2015. Looking ahead, the study found that the region could consume 25% renewable energy by 2022, given current policies plus additional programs. Sources of renewables include utility-based generation, green power purchases, solar installations and other programs that are based on the [Multi-Sector Working Group](#) greenhouse gas reduction actions.

Regional Greenhouse Gas Report and Local Fact Sheets

COG staff completed the 2012 regional greenhouse gas emissions inventory and found that the region met its goal of maintaining 2005 levels in 2012. The inventory calculated methane emissions from wastewater utilities in the region. The report is available online here:

<https://www.mwkog.org/documents/2016/04/22/greenhouse-gas-emissions-inventory-for-metropolitan-washington-2005-and-2012/>.

COG members were provided a fact sheet on their jurisdiction's community inventory.

Air & Climate Public Advisory Committee

The Air & Climate Public Advisory Committee is developing an Environmental Justice Toolkit. The Toolkit will contain resources, such as communication and engagement best practices, to inform government agency staff on the

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consideration of social equity and cultural sensitivity concerns in local planning and policy decisions regarding air quality, energy and climate change.

Additional Items

Lab-to-Market Technology Forum: Energy & Water Infrastructure

This forum, hosted by COG and the Federal Laboratory Consortium for Technology Transfer, Mid-Atlantic Region (MA-FLC), was held on June 2 at COG. It addressed commercializing innovative technology from seven Federal laboratories to improve our regional energy and water infrastructure and address cyber threats.

Laboratories included the EPA Office of Research, the National Institute of Standards and Technology, the Department of Defense, Sandia National Laboratories, the Department of Homeland Security, the Food and Drug Administration, and the US Geological Survey. The forum also included a demonstration of the disruption to water plants from cyber-attacks and energy disruptions. <https://www.mwcog.org/about-us/newsroom/2016/06/20/forum-seeks-to-link-federal-labs-research-with-the-marketplace/>

Presentations are available on the Forum web site. <https://www.mwcog.org/events/2016/6/2/federal-lab-to-market-forum-water-and-energy-infrastructures/>

DC Department of Forensic Sciences Laboratory

Staff is working to assess monitoring and laboratory capabilities on testing for unknown chemicals, sometimes referred to as exotic analysis. Staff are putting a MOU in place to provide for testing, fees, etc., to be followed by developing procedures.

Corona Environmental Study

The environmental group is undertaking a premise plumbing flushing/decontamination study. There is very limited science available about how effective flushing protocols are in cleaning out contaminants from plumbing systems. There are complications based on system designs, material types, hot vs. cold systems, etc. Corona has tested various protocols for flushing cold and hot water systems in a medium size office building, but more is needed.

Black and Veatch Resiliency and Redundancy Study

This study is being conducted for the region's drinking water systems. They have identified a series of possible system improvements, done some cost effectiveness testing, and possible scenarios forward. The drinking water utilities will need to review this work to see what capital improvement investments need to be made.

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Upcoming Meetings and Events

September 16 – CBPC Bay & Water Quality Forum with EPA & States

September 28 – CEEPC Meeting

November 18 – CBPC Fall Meeting & Montgomery County Stormwater Tour