

COG WATER RESOURCES PROGRAM UPDATES

(As of 1/24/17)

General Water Resources:

Updates on work supported by COG's RWQM Work Program and other water-related activities supported by COG's Department of Environmental Programs

Water Quality

Maryland's Draft Integrated Report of Surface Water Quality - 2016

Maryland has issued a draft of its biennial Integrated Report on surface water quality. Public comment on the draft closed on January 23. Maryland has made significant efforts to incorporate non-state government data (e.g., Frederick County) in ways that increase the resolution of the state's water quality assessments. The integrated report provides a good overview of water quality trends throughout Maryland; and also proposes a vision for prioritizing impairments for future TMDL development. A few highlights are noted below:

- Nutrient impairments continue to be the primary issue, followed by biological and PCB impairments.
 - Long term trends from USGS (1985-2014) and MDDNR (1999-2014) datasets show significant improvements in nitrogen and phosphorus concentrations in both tidal and non-tidal waters.
 - Short-term analyses (10 years, 2005-2014) show fewer significant trends but still indicate decreasing nutrient levels.
 - There are fewer significant trends with sediment but generally improving long-term trends were noted.
 - o Maryland met its 2015 CBP milestones for phosphorus and sediments and is on pace to meet its 2017 milestone for nitrogen reduction.
 - More work needs to be done to complete upgrades at WWTPs and to meet reduction milestones for nitrogen from agriculture, urban areas, and septic systems.
- MDDNR data also demonstrates statistically significant increases in conductivity in non-tidal streams. And the impacts of the salinization of state fresh waters due to road salt application:
 - o Are linked to aquatic community degradation;
 - o Lead to corrosion of metal infrastructure (e.g. bridges); and
 - Result in the salinization of drinking water sources and even contamination of some wells.
- Climate change impacts have also been noted, primarily increases in tidal and non-tidal waters.

You can download the full report here:

 $\frac{http://mde.maryland.gov/programs/Water/TMDL/Integrated 303 dReports/Pag}{es/2016 lR.aspx}$

COG staff will also be assessing the District and Virginia 2016 reports once they have been issued.

New Approaches to Water Quality Monitoring and Research Workshop

On December 12th, COG held a workshop on new approaches on Water Quality Monitoring and Research which included presentations by both the Chesapeake Bay Trust, and by a Virginia Tech partnership, about pooled funding to monitor stormwater best management practices, as well as a USGS

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Karl Berger (202) 962-3350 kberger@mwcog.org presentation about an intensive USGS monitoring project in Fairfax County's Difficult Run watershed, designed to pinpoint sources of nutrient pollution. Here's the link to access the presentations;

https://www.mwcog.org/events/2016/12/12/new-approaches-to-water-quality-monitoring-and-research/

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Water Infrastructure

Potomac River Sheen Discharge Event (November 2016)

On Wednesday, January 4^{th} , Water Security Work Group Chairman and Fairfax Water General Manager Chuck Murray briefed the COG CAO Committee on the Potomac River Sheen Discharge event. The oil spill was first reported by NRG's Dickerson Generating Station near Dickerson, MD on the morning of November 27, 2016. The combined federal, state and local response lasted for more than two weeks and overall required a major regional response from area water utilities, state and federal agencies. During this event, water utilities in the Metropolitan Washington region implemented a variety of protective actions such as temporarily closing some water treatment plant intakes, deploying protective booms, carrying-out intensive water quality monitoring, etc.

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COG staff are presently working with area water utilities, state and federal agencies to prepare an after action report (AAR) that will include information about the response and associated regional coordination; gaps in policies, plans and resources; and proposed regional after action steps. The AAR will also include an overview of the region's water supply systems for which the Potomac is the major source for nearly 5 million residents, summarize existing regional water supply emergency plans, and provide information about an ongoing water system resiliency analysis undertaken by the water utilities to identify actions for enhancing redundancy and resiliency of the region's water supply systems.

An update is planned for the CBPC on this event and the proposed follow-up actions.

Wastewater

Reduction of Intersex Occurrences in Response to Wastewater Treatment Plant Upgrades

The Environmental Science and Technology recently published a 10-year study which found the level of intersex occurrences in fish drastically declined due to the microorganisms used to lower the ammonia in the wastewater treatment process at a plant in Ontario's Grand River. COG's WWTPs have been removing ammonia for decades, so COG staff are working with EPA, the states and the CBPO to see if any such findings may also be noted where WWTPs have upgraded even more to achieve additional nutrient removal.

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To read more, please visit:

https://www.sciencedaily.com/releases/2017/01/170110151418.htm

<u>Community Engagement Campaign Booth - A Success at NBC4 Health Expo</u> COG's Community Engagement Campaign had a booth at the NBC4 Health Expo, at the Washington Convention Center on January 7-8. The booth covered the importance of tap water for health, and the Protect Your Pipes campaign about

Heidi Bonnaffon (202) 962-3216 hbonnaffon@mwcog.org what not to flush/put down the drain. There was a steady stream of interested and engaged community members on both days.

Alexandria Renew Awards: Envision and Utility of the Future Today

The Institute for Sustainable Infrastructure awarded AlexRenew's Nutrient Management Facility the Envision® Sustainable Infrastructure Platinum Award for its environmental, social, and economic outcomes. This is the first Envision Platinum Award in Virginia and the D.C. metro area and also the first for a U.S. water resource recovery facility.

In addition, a partnership of water sector organizations recognized AlexRenew as a Utility of the Future Today. One of 61 wastewater facilities across the world to receive this first-of-its-kind honor, AlexRenew was acknowledged for sustainability, organizational culture, community engagement, and success at recovering resources from wastewater. https://alexrenew.com/alexrenew-spotlight-2016-year-review

Prince William County Service Authority's Kidz at Work Day in April.

Prince William County Service Authority has been hosting a Kidz@Work event for more than a decade, modeled after the national "Take Our Daughters and Sons to Work Day" non-profit organization. This April's theme for the elementary aged children will be "Every Day Super Heroes" while the middle school and older students will have a "Choose Your Own Adventure" theme. This is to build awareness and appreciate of working in the wastewater field.

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Stormwater

Virginia SLAF Funding

The Department of Environmental Quality is soliciting applications for financial assistance through the Stormwater Local Assistance Fund (SLAF). DEQ will have approximately \$20 million in matching grant funds available for distribution. Applications are due by February 17, 2017. For full details:

http://www.deq.virginia.gov/Programs/Water/CleanWaterFinancingAssistance/ /StormwaterFundingPrograms/StormwaterLocalAssistanceFund(SLAF).aspx Heidi Bonnaffon (202) 962-3216 hbonnaffon@mwcog.org

Drinking Water

Regional Drought and Water Supply Status and Outlook

The next Regional Water Supply Status and Drought Outlook will be prepared in April 2017. Currently our region is under a "NORMAL' status, and streamflow, groundwater, and precipitation levels are within an average range.

For additional information, visit COG's Water Supply and Drought website: https://www.mwcog.org/environment/planning-areas/water-resources/drinking-water-and-drought-monitoring/current-drought-conditions/

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Climate, Energy, and Sustainability

Multi-Sector Working Group and the Draft Climate & Energy Action Plan

COG convened a multi-sector, multi-disciplinary workgroup to examine local, regional, and state strategies for reducing the region's greenhouse gases. The Multi-Sector Working Group proposed a set of voluntary strategies to move the region towards its greenhouse gas emission reduction goals. A Policy Task Force convened to review the proposed strategies and develop consensus recommendations that were adopted by the COG Board on January 11. Strategies involve addressing emissions from solid waste, building water and energy use, focusing development in activity centers while reducing loss of tree cover, and increasing alternative fuel vehicles and alternative travel choices. These themes are also incorporated in COG's Draft Climate & Energy Action Plan for 2017-2020, a revised version of which is to be presented for approval by the Climate, Energy & Environment Policy Committee in March.

Climate Resilience Workshop

COG worked with the Northern Virginia Regional Commission to produce the "Resiliency Planning for Northern Virginia: Developing a Climate Adaptation Roadmap" workshop held November 14, 2016. Speakers included Mayor Laurie DiRocco, Town of Vienna, Mayor Allison Silberberg of Alexandria, Jeff Harn of Arlington County, and Christophe Tulou, Senior Advisor for the US EPA on the Chesapeake Bay. Discussion revolved around the need to continue to form partnerships at the local and regional level to address climate impacts to water resources, habitats, transportation, and other sectors. Materials are posted <a href="https://example.com/here-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-posted-need-to-continue-to-conti

Sustainability in Comprehensive Plans Workshop

COG held a "Sustainability in Comprehensive Plans Workshop" on December 5, 2016, described in this <u>blog post</u>. More than 50 local planners gathered to share their expertise about incorporating environmental, social and economic policies in community plans. Speakers from the American Planning Association described the Sustaining Places best practices guidance, and a speaker from STAR Communities described their rating system. Planners from around the region described their efforts to create innovative neighborhood plans. Materials and presentations are posted <a href="https://example.com/here/blanks/plans-state-neighborhood-plans-based-state-neighborhood-plans-st

<u>Fleets for the Future: Cooperative Purchase of Alternative Fuel Vehicles</u> COG and the Mid-Atlantic Purchasing Team (MAPT) is partnering with the

COG and the Mid-Atlantic Purchasing Team (MAPT) is partnering with the National Association of Regional Councils (NARC) on a US Department of Energy award winning project called <u>Fleets for the Future (F4F)</u> to develop and implement five regional and one national scale procurement for alternative fuel vehicles and refueling/charging infrastructure. The purpose of the effort is to reduce the incremental cost of commercially available alternative, clean fuel vehicles and critical components in regional markets and nationwide.

Eligible stakeholder public fleets in the Mid-Atlantic region include local, state, and municipal governments, school districts and universities, and public electric and water/wastewater utilities. Eligible vehicle types are light, medium, and heavy duty vehicles. Fuel types include plug-in electric vehicles, compressed natural gas (CNG), propane, and ethanol. This is a two-year funded project expected to provide participating governments and stakeholders long lasting cost-saving benefits. For more information, contact Leah Boggs at loggs@mwcog.org go to http://www.fleetsforthefuture.org/.

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Upcoming Meetings and Events

March 17th - CBPC Meeting May 19th - CBPC Meeting