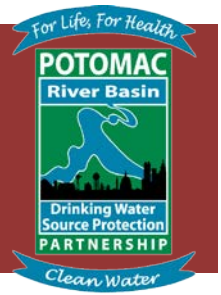


Potomac River Basin Drinking Water Source Protection Partnership

2013 Annual Report

www.PotomacDWSPP.org



Letter From the Co-Chairs

The Potomac River Basin Drinking Water Source Protection Partnership (DWSPP or Partnership) is a voluntary alliance of water suppliers and state, regional, and federal government agencies working to protect drinking water sources that serve millions of people living in the Potomac River basin. Since its establishment in 2004, 20 organizations have formally joined the Partnership, and many others have participated in various ways. As the Partnership enters its tenth year, we are proud of what we have accomplished in better understanding sources of contamination and ways to keep them out of our water. Now, we look forward to continuing our efforts and expanding our impact over the next ten years.

Writer and critic Nancy Newhall stated that, “Conservation is humanity caring for the future,” effectively summarizing why communities—and the Partnership—should invest time and resources in source water protection. Whether working with headwater landowners to minimize the impact of agriculture on water quality or educating city residents about protecting upstream drinking water sources, the payoff is long-term with the protection efforts bringing the most value to our children and the larger community. As new challenges to drinking water safety emerge, we remain vigilant in meeting them through source water protection, water conservation, and community education to continue to serve the needs of all water users in the Potomac basin.

Thanks to the time and effort of the members who participate in the Partnership’s workgroups and

committees, a number of important initiatives were accomplished this year. We encourage you to review this report to learn about them. Some of the highlights include:

- Engaging in an outreach effort with several local watershed groups to familiarize ourselves with their efforts and inform them about the Partnership's priorities;
- Holding a workshop for water utilities in the basin on the Unregulated Contaminant Monitoring Rule 3 (UCMR3) and how to communicate monitoring results to the public;
- Continuing to understand and address water quality issues in the basin and prepare for emergency spill response situations;
- Reviewing potential collaborative activities related to forestry and watershed protection; and
- Compiling an inventory of sources of water quality data in the basin.

Looking forward to next year, the Partnership has identified key areas to focus our efforts. The 2013 Workgroup Activity Report and 2014 Workgroup Priorities can be found online at www.PotomacDWSPP.org for your review.

We extend an invitation to other water utilities to join us in becoming part of this dynamic partnership. To become involved or learn more contact the Partnership’s coordinator Karin Bencala at kbencala@icprb.org.

In 2014, we will continue to build our efforts in protecting the drinking water sources for the Potomac Basin!

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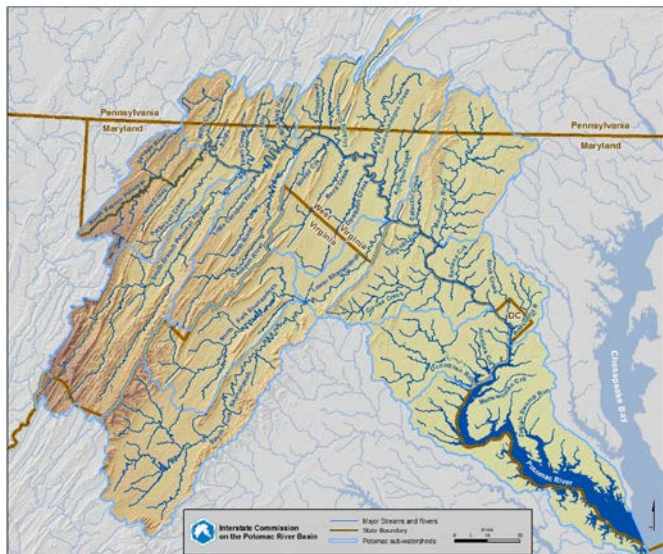
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Walter Ivey

Director, Environmental Engineering Division
West Virginia Department of Health and Human Resources
2012 & 2013 Government Committee Chair

Charles Murray

General Manager, Fairfax Water
2012 & 2013 Metro Area Water Utility Committee Chair



Potomac River Basin

The Potomac River basin spans 14,670 square miles across the District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia. The river is the drinking water source for the basin's residents, including the more than 4.5 million people living in the metropolitan Washington, D.C., area. The basin's surface water resources provide approximately 75 percent of the drinking water, with the other 25 percent coming from groundwater sources. The river's water quality is directly influenced by activities on the land throughout the basin. One step in providing safe drinking water is preventing contaminants from ever entering our waterways.

About Potomac DWSP

The Potomac River Basin Drinking Water Source Protection Partnership works to protect sources of drinking water in the Potomac River basin through a coalition of water utilities and state, interstate, and federal authorities. Established in 2004, 20 organizations are official members of the Partnership with many others participating in Partnership meetings, workshops, and activities. Partnership priorities include:

- Identifying the sources of contaminants entering the Potomac River.
- Improving our understanding of the impact these contaminants have on drinking water.
- Developing strategies to minimize the presence of the contaminants and their effects on drinking water.

Mission Statement

Our mission is to serve as a cooperative and voluntary partnership working toward the goal of improved source water protection within the Potomac River basin in recognition of the vital role of the river and its tributaries in supplying drinking water to millions of people and in support of the multi-barrier approach to safeguarding drinking water supply for public health.

Member Organizations

City of Frederick, Md.
 City of Hagerstown, Md.
 City of Rockville, Md.
 D.C. Department of the Environment
 Fairfax Water, Va.
 Frederick County, Md.
 Interstate Commission on the
 Potomac River Basin
 Loudoun Water, Va.
 Md. Department of the Environment
 Pa. Department of Environmental
 Protection
 Town of Leesburg, Va.

U.S. Environmental Protection Agency,
 Region 3
 U.S. Geological Survey
 Va. Department of Environmental Quality
 Va. Department of Health
 Washington Aqueduct Division, U.S. Army
 Corps of Engineers
 Washington County, Md.
 Washington Suburban Sanitary
 Commission, Md.
 W.Va. Department of Health and
 Human Resources
 W.Va. Department of Environmental Protection

Workshop Helps Potomac Utilities Understand UCMR3 Program

Many regional water utilities are in the midst of a federally mandated water quality monitoring program to determine if certain contaminants are present in drinking water. The monitoring program is required by the U.S. Environmental Protection Agency (EPA) under the authority of the Safe Drinking Water Act (SDWA). As part of its mission to regulate contaminants in drinking water, EPA must determine at a national scale whether certain contaminants are present and whether they pose a risk to human health before deciding if a Maximum Contaminant Level needs to be set.

The required monitoring is aimed at measuring the presence and concentrations of more than 20 substances selected by the EPA. The exact number of contaminants that are tested differs between large and small utilities. These substances are not currently regulated, but preliminary information indicates that they may be in the environment and potentially in drinking water too. This monitoring program is known as the Unregulated Contaminant Monitoring Rule (UCMR). The 2013-2015 monitoring program is the third successive round of such testing (and therefore is called UCMR3). Different contaminants are examined each round.

To support the region's water utilities and other interested stakeholders, the Potomac DWSP hosted a seminar on how to effectively communicate the results of the UCMR3 monitoring. Past experiences with "emerging contaminants" detected in source waters indicate that sound information and a consistent message are needed to promote understanding among public officials, the media, and consumers once results are released. This is particularly important for unregulated contaminants because human health effects may still be unknown or poorly studied. The presence of a substance in drinking water does not necessarily mean it is harmful or cause for alarm.

The seminar "*Decoding UCMR3: Clear Communication with the Public about Drinking Water Contaminants*" was a resounding success, with lively interaction among the speakers and an audience of more than 60 Partnership members and associates. It was planned by a sub-committee of the Partnership's Emerging Contaminants Workgroup and held at Loudoun Water in Ashburn, Virginia, on October 25, 2013.

The seminar started with a presentation from Vicky

Binetti, from EPA Region 3, on the regulatory background of EPA's UCMR program and how the UCMR3 effort differs from past rounds. This was followed by two presentations focused on the scientific and public health aspects of contaminants on the UCMR3 list. Dr. Mike Focazio, of the U.S. Geological Survey, provided a thorough review of potential sources and natural occurrence of some trace metals in rocks and minerals on the UCMR3 list; some of these metal contaminants have been detected by water utilities in the initial monitoring conducted to date. Dr. Chris Weis, from the National Institute of Environmental Health Science, provided an insightful presentation on the national public health research focusing on certain classes of endocrine disrupting compounds, and the new ways that toxicologists are addressing the human health effects of trace amounts of chemicals that may come from drinking water and other routes of exposure.

Subsequently, a panel of public affairs, advocacy, technical, and communications experts discussed effectively communicating complex scientific concepts when presenting the monitoring results, as well as how to address perceptions of risk from the consumers' perspective. The session was facilitated by Lisa Ragain, principal of Aqua Vitae, a firm specializing in risk communication in the context of environmental health. Panel members included: Judy Ding (City of Rockville), Leslie Allen and Caroline Nguyen (Washington Suburban Sanitary Commission), Lynn Thorp (Clean Water Action), and Micah Vieux (Loudoun Water). Speakers Vicky Binetti and Mike Focazio also participated.

Based on interest expressed during and after the seminar, the Emerging Contaminants and Reaching Out Workgroups will continue to track the UCMR3 results during 2014 and to develop communications tools on this topic for the Partnership. Further outreach to upstream Potomac utilities is currently being planned.

Looking for more information on UCMR3?

U.S. Environmental Protection Agency
water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3

American Water Works Association
www.drinktap.org/home/water-information/water-quality/ucmr3

New Tools Help Paint Big Picture of River's Water Quality

Understanding upstream water quality conditions, contaminant sources, and efforts in place to improve quality is essential for source water protection. This year the Potomac DWSPP took a number of steps to improve members' knowledge of water quality issues and opportunities.

Water Quality Data Inventory

A new workgroup, Water Quality Data, was created in 2012 specifically to track sources of water quality data. Taking advantage of an existing project at the Interstate Commission on the Potomac River Basin (ICPRB), the workgroup assisted in the development of a water quality data inventory. The inventory is a searchable spreadsheet listing data collection efforts throughout the watershed. It contains information on the location and extent of the monitoring effort, parameters measured, and contact information for the dataset. The inventory does not hold the actual data collected through these efforts; it is meant to provide members with information on how to request data as needed.

The workgroup also maintains information on raw water parameters monitored at the intakes of the Partnership's utility members. When there is interest from the Partnership, the workgroup will conduct trend analyses on a specific parameter. For instance, in 2014 the workgroup will take a look at alkalinity levels measured at multiple intakes and present the results at a quarterly meeting. Alkalinity affects water hardness and salinization rates.

The workgroup is able to assist other workgroups in locating data sources and experts and conducting limited analyses. This capability can improve the understanding of water quality conditions and assist the Partnership in setting priorities and identifying activities.

Maps

Maps can be particularly useful when trying to identify areas of risk for a given threat. In its support role for the Partnership, ICPRB has created a number of maps for the various workgroups. This effort relies on publically available data and information. Maps are now available to members for the following:

- current land use,
- current and future impervious areas,
- current and future urban areas,

- population density,
- road network,
- wastewater treatment plants,
- electric generation facilities,
- NPDES permitted discharges by facility type and discharge material, and
- gas wells.

Research

Members worked with the Water Research Foundation (WaterRF) to initiate an "Evaluation of Current and Alternative Strategies for Managing Contaminants of Emerging Concern in Water" to be based on a holistic approach and drawing on world-wide expertise. It is funded by WaterRF and through international in-kind support and cost share.

Rules and Regulations

In addition to knowing what and where the water quality concerns are in the basin, the Partnership stayed up to date on federal and state rules and regulations that govern pollution and watershed protection. In 2013, workgroups tracked the following issues:

❖ Urban Issues

- State stormwater regulations
- State public water supply criteria and water quality standards
- NPDES permit applications
- Road salt use

❖ Emerging Contaminants

- Chemical regulation (revamp of the Toxic Substances Control Act)
- Pharmaceutical disposal and take back events

❖ Early Warning and Emergency Response

- Liquid and gas transportation and safety measures

Networking

A small group of Partnership members discussed common water quality concerns with local watershed groups at an informal meeting. While there are many shared interests, each organization has different goals and means of improving water quality. No defined initiatives have come from these conversations yet, but this was a great step for building relationships with others active in the Potomac watershed.

Membership Provides Benefits to Utilities of All Sizes Across the Basin

Membership in the Potomac Partnership is open to any water supply system that derives all or part of its water from within the Potomac River basin. Small utility members are asked to make a voluntary contribution of \$300 per year or \$66 per average annual withdrawal in million gallons per day. Benefits of membership include:

- ❖ **Unified voice** -- Working together as utilities and government agencies, the Partnership is able to attract the attention of government, research, non-profit organizations, and others on priority source water quality and watershed protection issues.
- ❖ **Early issue identification** -- Collaborating with local utility colleagues on source water protection helps all members to become aware earlier of significant challenges and potential solutions than otherwise would be possible.
- ❖ **Collaboration** -- Informal information sharing between the government and utility sectors helps build relationships and mutual understanding that are key to identifying successful source protection activities.
- ❖ **Applicability** -- DWSPP focuses solely on issues of source water quality in the Potomac watershed, so the staff effort invested in participating in DWSPP is directly related to every-day water quality concerns.
- ❖ **Recognition** -- The discipline of active participation in DWSPP, including setting goals and measuring achievements, provides tangible evidence of the progress made on protecting the watershed.

Interested in source water protection but not a utility? Periodically the Partnership holds events that are open to others interested in Potomac basin source water protection. Let us know you're interested and we'll add you to our mailing list.

Leadership Update

At the 2013 Annual Meeting, leadership positions were passed on from West Virginia Department of Health and Human Resources to the District Department of the Environment for the Government Committee and from Fairfax Water to the Washington Aqueduct Division of the Army Corps of Engineers for the Utility Committee. Rotating leadership provides the Partnership with new perspectives and energy for protecting our sources of drinking water.



From left to right: Bill Toomey (WV DHHR), Tom Jacobus (Washington Aqueduct), Chuck Murray (Fairfax Water), Collin Burrell (DDOE)

Potomac River Basin Drinking Water Source Protection Partnership

For Life, For Health, Clean Water

For more information, contact
Karin Bencala

Interstate Commission on the Potomac River Basin

Phone: 301-274-8139

E-Mail: kbencala@icprb.org

www.PotomacDWSPP.org

