



## POTOMAC RIVER BASIN DRINKING WATER SOURCE PROTECTION PARTNERSHIP

Quarterly Meeting Summary for August 27, 2014

Location: ICPRB, Rockville, Maryland

### Attendees

#### Utilities

City of Rockville:  
Judy Ding

DC Water:  
Nicole Condon  
Ying Tan

Fairfax Water:  
Greg Prelewicz  
Joel Thompson

Town of Leesburg:  
Russell Chambers

Loudoun Water:  
Micah Vieux

Washington Aqueduct:  
Alex Gorzalski  
Tom Jacobus  
Anne Spiesman

WSSC:  
Martin Chandler  
Mohammad Habibian  
Priscilla To

#### State and Local Government

DDOE:  
Collin Burrell  
Shah Nawaz

MDE:  
Lyn Poorman

PA DEP:  
Patrick Bowling

VDH:  
Roy Soto

WV DHHR:  
Bill Toomey (phone)

#### Federal and Regional Agencies

EPA Region 3:  
Bill Arguto  
Vicky Binetti  
Amie Howell  
KR Young

ICPRB:  
Karin Bencala  
Carlton Haywood

MWCOG:  
Steve Walz

USGS:  
Cheryl Dieter

#### Other Interested Parties

Horsley Witten:  
Tom Noble (phone)

Montgomery County, Md.:  
Dave Lake

## Workgroup and Committee Reports

### **Early Warning and Emergency Response** – Carlton Haywood, ICPRB

#### Source Water Assessment update:

- A lot has been happening since the initial meeting to discuss updating the source water assessment was held on April 22. There are three efforts in the works related to updating the basin's source water assessment:
  - EPA Region 3  
Horsley Witten drafted a framework for a Potomac basin source water assessment and plan. This was an action item from the April 22 meeting meant to help the Partnership define what it would like to see done. It is not a proposal from the EPA. EPA is interested in feedback. They may be able to assist with some of the tasks the Partnership identifies, but their focus remains on doing something related to DC's source waters (this could include a basin-wide inventory of potential contaminant sources).
  - Water Research Foundation/Corona Environmental Consulting  
Water Research Foundation has contracted with CEC to develop a framework and methods for identifying sources of potential contamination in source water areas. Through WaterRF, utilities can participate as a case study area. ([Download handout](#))
    - This effort is currently being pursued by COG and a few utilities in their region (Fairfax Water, DC Water, Loudoun Water). Funding COG received through the UASI grant process is likely to be used to fund this effort. There is an advantage to being involved with this effort as it is already underway and work is currently being done for West Virginia American Water.
    - Phase 2 of this project would be the development of a tool to view the information collected. WaterRF is aiming to have the tool available to the public to view all the non-sensitive information it will contain. This portion is not yet an approved WaterRF project.
    - If Phase 2 moves forward, COG/utilities could choose to work with CEC to customize a tool for the Potomac basin that gathers information on all potential contaminant sources. Development costs and on-going fees would be reduced for those who participate in phase 1 described above. Risk analysis could be built into the model at an additional cost. The Partnership would be a good venue for determining risk criteria. Depending on how many organizations decide to move forward with Phase 2, there will need to be a discussion about who is best suited to maintain and update the tool's information.
  - EPA Drinking Water Mapping Application for Protecting Source Waters ([DWMAPS fact sheet](#))
    - This is a nationwide mapping tool being developed by EPA HQ. It will provide mapped information on potential sources of contamination.
    - By December, they hope to have a publicly available version. At some point next year, there will be a version that provides utility access to sensitive information.
    - Vicky Binetti, EPA R3, is hoping to use the tool to do something specific to the Potomac basin and D.C.'s assessment.

- There is clearly some overlap between the efforts. The Partnership should make sure that the work all members want to see done gets prioritized, while at the same time minimizing duplication. For example, some of the tasks outlined in the EPA framework draft would be completed by Phase 1 of the WaterRF/CEC effort, and, potentially, by the national EPA mapping effort. The Partnership might be best suited to take information from an assessment and assess risk and develop an action-oriented plan.
- It may be best to focus on a small area initially to define a method for data gathering and risk analysis before expanding to the whole basin. Any effort will ultimately be designed to benefit all Partnership members.
- A small group (Karin Bencala, Steve Bieber, Lisa Ragain, Collin Burrell, Bill Toomey, Vicky Binetti, Greg Prelewicz, Anne Spiesman, Priscilla To) will work on a list of tasks for an assessment and plan to guide the Partnership's involvement in the various efforts. They will also stay involved with the WaterRF/CEC project and provide feedback to Horsley Witten. There are some questions about who could have access to the CEC tool and how smaller utilities and government agencies can be involved. Ultimately, the group will sort through the various options and make recommendations to the Early Warning and Emergency Response workgroup before going to the whole Partnership.
- EPA Region 3 remains very interested in participating in an update and helping with implementation.
- The Partnership's priority is identifying location of contaminants and collecting the related safety sheets to learn about the threats in the basin.

#### Colonial Pipeline July meeting:

The long-planned meeting between the metro area water utilities and Colonial Pipeline was held on July 8 at COG. Topics discussed included Colonial's general operations and integrity management and emergency response plans. Attendees found the meeting to be very informative. Planned follow-up activities include joint spill exercises, reviewing Occoquan and Patuxent Emergency Response Plans and Tactical Response Plans, and sharing spill modeling information between Colonial and ICPRB. The workgroup should spend some time reviewing the written plans for errors – COG has already found a few. COG is planning to write a public summary of the meeting.

COG is reaching out to Plantation Pipeline, CSX, and Norfolk Southern to hold a similar meeting.

#### Other issues:

WSSC is conducting a petroleum spill study that focuses on response at the water treatment plant, not on source water protection aspects. Of interest to the Partnership are a review of early warning monitoring systems and the development of quick reference charts showing information on the amount and location of a release required to reach MCL levels. M. Habibian (WSSC) provided a [handout](#) explaining these two items.

ICPRB's list of utility, state, and federal contacts for spill events was updated. The interstate notification [fact sheet](#) and [website](#) were also updated with the current contact information. This fulfills an on-going task identified in previous spill exercises.

Senate Bill 1961, [Chemical Safety and Drinking Water Protection Act of 2014](#), was referred to the full Senate out of committee at the beginning of April. Amendments to the original text were reported by Senator Barbara Boxer at the end of July. This bill would amend the Safe Drinking Water Act to require

the EPA or states to create a chemical storage facility program to protect sources of drinking water. Martin Chandler (WSSC) provided this summary of changes to the original bill text:

- The term “covered chemical storage facility” used in the original has been universally changed to read “covered chemical storage tank.”
- Under exclusions from the Act, a special exception has been added that allows a State (if it is administering the program) to exclude a tank if it would “not pose a risk of harm to a public water system.”
- Response time for States to establish a “chemical storage tank surface water protection program” has been increased from one year to two years. A provision has been added that recognizes some States may elect to refrain from implementing the program, in which case their delegated authority for primary enforcement of public water systems in the State would not be affected. The EPA Administrator would then enforce the program.
- A provision has been added that, when developing its emergency response plan under the program, the State must include a “procedure for notifying, after discovery of chemical release, public water systems that may be adversely impacted by the chemical release.”
- A new category of tank defined as a “high hazard covered chemical storage tank” has been added. The State program must develop a list of such tanks “from which a release of a chemical from the tanks poses the greatest risk of harm to public water systems in the State and the greatest risk to public health.” The schedule for periodic inspections of “high hazard” tanks is increased from two years (other covered chemical storage tanks) to a one-year frequency.

**Reaching Out** – Karin Bencala for Curtis Dalpra, ICPRB

- DC Water became an official Partnership member in August - Welcome!
- Forest proposal update – Fairfax Water, WSSC, and Washington Aqueduct have agreed that applying for a Water Research Foundation tailored collaboration grant is the best approach for supplementing U.S. Endowment funds. Other member utilities are still welcome and encouraged to participate. The small group working on this proposal will start working on repackaging the proposal for the WaterRF application. It needs to be ready to submit on January 1, 2015.
- Potomac Conservancy blog – Each member organization had the opportunity to review and provide feedback on the guest blog post for the Potomac Conservancy. Partnership chair Tom Jacobus agreed to sign the post. Any last edits should be sent to Karin by August 29.
- Marcellus and forest fact sheet – ICPRB developed a fact sheet on the extent of the Marcellus shale play in the basin following an information request from WSSC. The fact sheet was distributed at the meeting for review. If there are no objections, it will be posted to the Partnership’s website. Meeting participants expressed an interest in learning more about what other plays underlie the basin and what potential there is for future drilling.
- AWRA presentation – K. Bencala is providing a general overview of the Partnership and current initiatives at the November annual meeting of the American Water Resources Association. She will send around a draft version of the presentation for comment before the event.
- ICPRB has a company under contract to update the website. This should be completed around the end of the year.<sup>1</sup>
- COG asked if the Partnership would be interested in sharing a booth at the Chesapeake Watershed Forum at the end of September. Attendees thought this was a good idea and the type of activity the workgroup should be participating in. EPA R3 has a display of drinking water

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<sup>1</sup> This was updated from the October timeframe mentioned at the meeting.

areas in the Potomac we could use. Nicole Condon (DC Water) is able to help with materials and messages.

- The annual meeting is set for Thursday, November 20, at the Adams County, Pennsylvania, Emergency Services Training Facility near Gettysburg. Pat Bowling (Pa. DEP) has taken the lead in finding the venue and organizing an information session. The information session will focus on natural gas extraction from Marcellus shale in Pennsylvania. Speakers are anticipated from Penn State and Pa. DEP. Lyn Poorman (MDE) suggested a speaker from Maryland be included as a number of state efforts on the issue are about to wrap up and recommendations on drilling in the state are forthcoming.
  - There are a number of drinking water anniversaries this year that we should consider noting at the meeting: DWSPP (10<sup>th</sup>), Pa. DEP Drinking Water Program (30<sup>th</sup>), Safe Drinking Water Act (40<sup>th</sup>)
  - If members would like invitations sent (mailed hard copy or emailed PDF) to organization executives, Karin needs their names and contact information by October 1. Stakeholders in the Adams County area will be invited, along with all Potomac basin utilities.
  - Work group chairs are asked to provide 2014 progress summaries and 2015 work plans to Karin by October 27. Templates for both items will be emailed soon.

#### **Emerging Contaminants** – Martin Chandler, WSSC

- UCMR3:
  - Data tracking and compilation of EPA's interim April 2014 dataset, sorted to show Potomac River basin utility results, was completed and distributed for review in June. The previously noted trend of contaminant occurrence featuring heavy metals and chlorate is still evident. Vicky Binetti (EPA R3) understands that EPA's next quarterly data set will be released in coming weeks.
  - K. Bencala contacted attendees of the 2013 seminar in July with an update on Potomac basin monitoring results and the messaging effort lead by Nicole Condon (DC Water) and her sub-group. The next step may be focused on existing resources (e.g., AWWA, USGS, EPA) for health and occurrence information about the detected substances.
  - V. Binetti mentioned that some groundwater systems, outside the Potomac basin, had elevated detections of PFOS and PFOA exceeding health guidelines; those wells have been shut down. EPA is not using UCMR data for enforcement, only for public health protection.
- There are no EC-related legislation updates at this time. The final DEA Drug Disposal rule is expected to be released soon, possibly the week of September 8. Planning is underway for UCMR4, but the proposed rulemaking will not come out until 2015.
- Literature/research updates:
  - A feature edition of the *Journal of the American Water Resources Association*, published online in April contains 13 new articles on EC issues. An introductory article by the editors of the collection provides a good summary of each article. **The series is available free in the public domain.** A link will be added to the EC page of the website.
  - At the May quarterly meeting, WaterRF's EDC Network website (WaterRF Project 4261) was mentioned as a potential source of information on ECs. For the Partnership's purposes it has limited benefits as access is restricted to water utilities, hence not immediately helpful for government and NGO partners. Additionally, difficulty was experienced with website login. There was an extended period between user application and approval.

- M. Habibian provided an [update on WaterRF project 4494](#), Evaluation of Current and Alternative Strategies for Managing CECs in Water. A two-day workshop was recently held in Germany to examine the European Union's and individual countries' approach to regulating CECs. A good report came out of the meeting that highlighted these other approaches, including holding polluters responsible for chemical discharges, making data publicly available, and requiring a chemical to receive government approval before being used.
- There are two recent USGS reports of interest: a [study](#) of ECs in surface waters in Pennsylvania including the Susquehanna, Delaware, and Ohio rivers; and a report on ECs in landfill leachate. Although data come from areas outside the Potomac basin, findings may be relevant generally, and of interest to DWSP.
- DC Water has received a major grant from the D.C. Council to pursue a research study of source conditions for intersex fish in the Potomac River, focusing on upstream and downstream sources (e.g., manure, wastewater, and stormwater), and seeking to define controls that may help reduce the pollutants in surface waters. The analyses include bioassays and chemical tests, with in-kind support from USGS. The research proposal was originally submitted to WERF, but not funded, however WERF may be willing to administer the project via a peer review panel. Project duration is expected to be 18 months, beginning later in 2014.
- A review and consideration of an update to the EC Workgroup Strategic Plan will be pursued later in the year.
- The recent Toledo water supply emergency adds to growing interest and concern over Harmful Algal Blooms (HAB) and algal toxins. While this has not been a drinking water issue in the basin, HAB outbreaks have occurred. There was one recently in Lake Needwood in Montgomery County. The issue is also related to invasive species as they can cause a shift in the ecosystem in favor of algae species that lead to HABs.
  - The EC group is interested in tracking the issue, but recognizes that this is a cross-cutting issue that multiple workgroups may want to address. Specifically, it relates to nutrient sources (agricultural issues workgroup), water quality (water quality data workgroup), and early warning (early warning and emergency response workgroup). This is also a top priority for the Government Committee. Instead of creating another work group, one idea is to have interested workgroup chairs periodically meet to evaluate and report on HAB/algal toxin issues. Activities might include tracking national efforts on the issue, working with local environmental groups to understand and address the issue, and/or tracking taste and odor issues at basin utilities.

**Urban Issues** – Greg Prelewicz, Fairfax Water

- COG is a good resource for information on MS4 permits in the metro region. They track the permits and compare the reporting requirements of different jurisdictions.
- The workgroup sponsored the meeting's information session on Montgomery County's MS4 permit.
- The USGS recently released a national study on total dissolved solids. It found that in the mid-Atlantic region, over 30 percent of the long-term mean annual dissolved-solid load comes from road deicers. The nationwide average is 13.9 percent. The [report](#) is available online. The link will be provided on the Partnership's website.

- A [survey on public water supply Water Quality Standards](#)<sup>2</sup> was drafted. It will be sent to basin utilities to learn about constituents for which they would like to see standards set. The workgroup is looking for feedback on the draft and will hold call in next couple of weeks. Let Greg know if you want to help.
- Greg is still on MDE's interested parties list for the four NPDES permits up for renewal this year in Maryland. There have been no updates so far.

**Water Quality Data** – G. Prelewicz for Niffy Saji, Fairfax Water

- The summary of the alkalinity trends at a few basin utilities will be finished soon and posted to the website.
- Workgroup members continue to update the data inventory with information from Virginia and Maryland sources.
- G. Prelewicz is on a panel for the federal Advisory Committee for Water Information. An item of interest is the interagency water data repository at [www.waterqualitydata.us](http://www.waterqualitydata.us). New data is being added by federal agencies and they hope to include state and local data in the future.

**Government Committee** – Collin Burrell, District Department of the Environment

The May algae seminar went well. There were over 50 participants. Eight non-member systems were represented by multiple attendees. A small number of participants submitted an evaluation form. Generally, feedback was positive but participants would have liked more information on specific actions water utilities can take to prevent and address an HAB. The issue continues to be a priority for the workgroup. Collin will participate in the small group working on the issue.

**Ag Issues** – KR Young, EPA Region III

- KR is organizing a 2015 information session on the work Mark Dubin and the University of Maryland are doing to better model agricultural land uses in the Bay Program's watershed model.
- The EPA is releasing the [Recovery Potential Screening Tool](#) for each state. The tool evaluates data to compare watersheds and help prioritize TMDL activities. Source water areas are included in the data set and analysis. States may want to check the source water-related data in the tool. C. Haywood mentioned that ICPRB will have a version specific to the Potomac basin.
- Lancaster County, Pa. (outside the Potomac basin), received a grant from the Chesapeake Bay Program to address source water issues. This reflects the EPA's push to integrate Clean Water Act and the Safe Drinking Water Act programs. The Partnership might want to consider this as a future funding source.
- The Source Water Collaborative has released a [toolkit](#) on how to work with conservation districts.
- The EPA, Association of State Drinking Water Administrators, Association of Clean Water Administrators, and Ground Water Protection Council are working on a toolkit to guide practical integration of the Clean Water Act and the Safe Drinking Water Act. It may be released as early as September.

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<sup>2</sup> This is the version distributed at the meeting. Contact Greg for an updated version.

## Issue Updates

### Marcellus Shale –

- Lyn Poorman, MDE – Maryland’s reports on Marcellus gas extraction and horizontal drilling are wrapping up. An interim version of the BMP study was released in July. A report on the public health impacts was released in August. A draft report with all findings and recommendations will be issued this fall, and the final version should be completed by the end of the year. [The reports and release schedule are available on MDE’s website.](#)
- Bill Toomey, WV DHHR – Between January and June of 2014, there have been 321 applications for horizontal wells. 297 permits have been issued.
- Patrick Bowling, Pa. DEP
  - Between 1/1/14 and 8/26/14:
    - 896 unconventional wells have been drilled in PA (number has approximately doubled since May DWSPP meeting)
    - Of the 2,880 total permits issued, 2,143 were for unconventional wells
  - A total of 7,395 unconventional wells have been drilled in PA and 4,324 have been fracked to date.
  - PA DEP production figures for unconventional wells continue to show a dramatic increase. For the first six months of 2014, unconventional wells produced 1.9 trillion cubic feet (Tcf) of natural gas (up from 1.7 Tcf for last six months of 2013) along with 1.8 million barrels of condensate and over 200,000 barrels of oil. ([Source: Penn State Extension](#))
  - According to the U.S. Energy Information Administration, natural gas production in the Marcellus Region (mostly located in WV and PA) exceeded 15 billion cubic feet per day (Bcf/d) through July for the first time ever. The Marcellus Region is the largest producing shale gas basin in the United States and accounts for nearly 40 percent of U.S. shale gas production. Production in the region has increased dramatically over the past four years (2 Bcf/d in 2010 to current level of 15 Bcf/d). The rig count in the Marcellus Region has been steady at approximately 100 rigs for the past 10 months. With continued improvement in drilling productivity, production from new wells coming online in August will be more than enough to offset the anticipated production drop that results from existing well decline rates and will increase the production rate for the region by 247 million cubic feet. ([Source: U.S. EIA](#))
  - Clarification of a previous PA Marcellus report: Based on more refined mapping, it does not appear that there are any unconventional wells in the PA portion of the Potomac basin. There are a few that are outside of the basin but proximal to the basin boundary in eastern Somerset County. Previously, visual comparisons of small scale maps appeared to show a few wells within the basin in eastern Somerset County. However, there are conventional gas wells in the PA portion of the Potomac basin (James Buchanan State Forest in southern Bedford County).
  - PA DEP Interactive Oil & Gas Mapping Website:  
<http://www.depgis.state.pa.us/PaOilAndGasMapping>
- Vicky Binetti, EPA R3 – EPA Office of Research and Development’s draft study looking at the impacts of hydraulic fracturing on drinking water resources should be available for internal review in about a month.



## Information Session

The Urban Issues workgroup hosted Pamela Parker from the Montgomery County Department of Environmental Protection's Stormwater Permit Coordination Section to discuss their MS4 permit program and reporting ([download presentation](#)). G. Prelewicz provided an introduction to general MS4 requirements ([download presentation](#)).

## Administration

The [2015 financial work plan](#) was distributed at the meeting. We spent significantly more than budgeted in fiscal year 2014. The 2015 budget assumes that we will return to a normal level of activity. If this does not happen, we will have to revisit the 2016 budget and contribution levels.

## Announcements

- Vicky Binetti, EPA R3 – The Source Water Collaborative is issuing a call to action for a renewed commitment to source water protection. AWWA is taking the lead on drafting a document. It will emphasize three points: 1) it is time to reexamine original source water assessments, 2) assessments need to be converted into actionable items, and 3) we should be prepared to meet all hazards.
- Nicole Condon, DC Water – There will be a celebration of the Safe Drinking Water Act's 40<sup>th</sup> anniversary on October 2. It will be a lunchtime event in downtown D.C. The intended audience is the general public and media. The main message will be the link between drinking water and the local economy. EPA Headquarters, AWWA, DC Water, and other utilities will participate. EPA is making a promotional video around the anniversary; there may be an opportunity to feature the Partnership.

**Annual Meeting:  
November 20, 2014**