



POTOMAC RIVER BASIN DRINKING WATER SOURCE PROTECTION PARTNERSHIP

Quarterly Meeting Summary for April 26, 2011

Location: ICPRB, Rockville, MD

Attendees

Utilities

City of Rockville:
Judy Ding

Fairfax Water:
Melissa Billman
Traci Goldberg
Greg Prelewicz
Niffy Saji

Frederick County:
Mark Schweitzer

Loudoun Water:
Beate Wright

Town of Leesburg:
Russell Chambers

Washington Aqueduct:
Shabir Choudhary
Anne Spiesman

WSSC:
Martin Chandler
M.T. Habibian

State and Local Government

PADEP:
Patrick Bowling
Joe Lee

VDH:
Wes Kleene

Federal and Regional Agencies

EPA Region 3:
Vicky Binetti (phone)
Chuck Kanetsky
Ellen Schmitt

EPA HQ:
Marjorie Copeland (phone)

ICPRB:
Karin Bencala
Carlton Haywood
Curtis Dalpra
Joe Hoffman

MWCOG:
Steve Bieber

USGS:
Cherie Miller

1. Workgroup and Committee Reports

Emerging Contaminants – Pat Bowling, PA DEP

The workgroup provided reports on the many issues it continues to track:

Hexavalent Chromium – Ellen Schmitt worked with EPA colleagues to get a list of NPDES permitted facilities (major and minor) with a Cr+6 component. The search turned up discharges in West Virginia and Maryland. The data includes both the location of the facility and the location of the discharge. Pat and Ellen will share this list with the workgroup. Others interested in seeing this list can contact Ellen directly.

Dr. Habibian, WSSC, discussed the monitoring effort the utility is conducting for Cr+6. Monitoring activities go beyond EPA requirements. They are sampling at four locations for each of the two WSSC treatment plants. Samples are taken monthly and will continue for a year. For the past two months samples results were non-detects or in the 0.06 - 0.1 ppb range. General information on the issue, the monitoring plan, and sampling results are available on the [WSSC website](#).

Vicky Binetti, EPA Region III, mentioned an upcoming [meeting for the external peer review](#) of the EPA report *Toxicological Review of Hexavalent Chromium*. The meeting is scheduled for Thursday, May 12, in Arlington, VA.

Hydrofracking

Martin Chandler, WSSC, provided an update on research and policy activities regarding hydrofracking in Marcellus Shale area.

- EPA is having two public teleconferences for Science Advisory Board staff to discuss the draft report reviewing EPA's Draft Hydraulic Fracturing Study Plan. Dates for the calls are [Thursday, May 19, 2011 from 1 p.m. to 5 p.m.](#) and [Wednesday, May 25, 2011 from 1 p.m. to 5 p.m.](#) The deadline for written comments is May 12.
- Pinchot Institute for Conservation held a conference, [Assessing the Environmental Effects of Marcellus Shale Gas Development: The State of Science](#), on April 1. The website has useful information including the presentation mentioned from SRBC: Effects on water consumption and management (e.g. groundwater and surface water withdrawals) by Jim Richenderfer [[Download pdf](#)].
- PA has requested that natural gas drillers stop discharging wastewater to the 15 "grandfathered" treatment plants currently accepting it. ([PA DEP statement](#))
- There were two Marcellus Shale-related bills taken up in the Maryland legislature this year, both failed to pass. Testimony from Bob Summers on the issue is attached to the email (file name: MDE_OS_Summers_Testimony4-6-11.pdf).
- Joe Lee, PA DEP, provided the link for a new Ground Water Protection Council / Interstate Oil and Gas Compact Commission website - <http://fracfocus.org/>. The website serves as a voluntary registry for companies to report chemicals used in the hydraulic fracturing processes. Currently, there are approximately 30 gas companies and 5 service companies contributing chemical information to the site. In addition to the chemical registry, there is also extensive education information and materials available on the site.

Past and Future EC Conferences

PA DEP organized an Emerging Contaminant Forum on March 24 that featured presentations on the conclusions of a multi-faceted 4-year USGS/DEP collaborative study on emerging contaminants in PA streams plus information on an ongoing Temple University/DEP research project on methods from removing emerging contaminants from drinking water. The USGS research involved sampling water and bed-sediments from two streams within PA's portion of the Potomac basin (Rock Creek and East Branch Antietam Creek) but did not involve fish tissue sampling in those streams. Pat Bowling will try to obtain the analytical data from the Potomac basin sites. In addition to the PA DEP organizers, Partnership members Mohammad Habibian and Martin Chandler from WSSC attended. The speakers and presentations are listed below. Two journal papers from Vicky Blazer and a USGS report by Kent Crawford are expected later this year on their presentation topics. Dr. Blazer did note that intersex fish conditions in smallmouth bass from the Susquehanna River of PA were similar to the Potomac findings but that this was not the case in the Ohio basin. Also, there does not appear to be a consistent association of intersex conditions with proximity to sewage plants.

Presentations:

- [Pharmaceutical Compounds, Antibiotics, Hormones, and Wastewater Compounds in Pennsylvania Waters, 2006 – 2009](#): Dr. Kent Crawford, Water-Quality Specialist for the Pennsylvania Water Science Center of the U.S. Geological Survey
- [Biological Evidence for Exposure to Contaminants of Emerging Concern in Pennsylvania and YOY mortality data](#): Dr. Vicki Blazer, Fish Pathologist, U.S. Geological Survey
- [Tracking Pathogenic Organisms via Polymerase Chain Reaction \(PCR\) Methodology](#): Dr. Joe Duris, Microbiologist, United States Geological Survey – Michigan Water Science Center
- **Advanced Treatment of Drinking Water to Remove Trace Emerging Contaminants**: Dr. Rominder Suri, Director of the Water and Environmental Technology (WET) Center (Dr. Suri reported that advanced oxidation has promise for removing some emerging contaminants but not DEET or perfluorinated compounds.)

WaterRF project #4169, Water Utility Framework for Responding to Emerging Contaminant Issues, continues to advance. The consultant is ready to meet with the Partnership to discuss the results of the project and get our feedback. Proposed dates are May 23 and June 10. A scheduling poll is being sent out to select the date that works best for most members.

[Project description from WaterRF website](#):

Will develop a framework for an interim strategy that drinking water utilities can use to respond to emerging contaminant challenges (specifically, EDCs and PPCPs), which will describe the best practices to follow at present given the existing knowledge on chemistry, occurrence, and removal methods. Specifically, the framework provided would provide recommendations for monitoring programs, analytical methods, treatment processes and treatment enhancement options, source protection efforts, risk assessment, and effective communication strategies that can be used with customers and other stakeholders on EDCs and PPCPs.

Dr. Habibian summarized the presentation he gave on emerging contaminants to the National Research Council's Water Science and Technology Board on March 31. A PDF of this presentation is attached to the email (file name: A brief on ECs.pdf). Main topics included the number of chemicals on the market and treatment challenges, our ability to detect chemicals versus our understanding of their impacts, possible frameworks for addressing the issue, bioaccumulation and modes of exposures, and energy costs to remove all chemicals.

Upcoming Potomac Conservancy forum - [Disruption: New Pollutants in the Potomac and Beyond](#)

Please join Potomac Conservancy and science, policy, and technology experts for an important discussion about how to protect the health of our rivers and streams in light of endocrine disrupting compounds and other emerging contaminants that are present in our waterways. Attendees will receive up-to-date information and participate in a discussion of how to craft solutions to this emerging problem in our nation's rivers and water supply.

Registration is free.

When: Friday, June 3, 9:00 – 2:30

Location: Continental Ballroom, Marvin Center, George Washington University

800 21st Street, NW, Washington, DC

Contact: Anne Sundermann, sundermann@potomac.org

Urban Issues – Greg Prelewicz, Fairfax Water

The Urban Issues workgroup organized the meeting's information session: [Identifying Source Water Protection Opportunities in the Chesapeake Bay Watershed Implementation Plans](#).

The workgroup has been tracking the efforts of the Minnesota Pollution Control Association to train road plow operators on environmental protection issues. They run a [four-hour training session](#) using EPA 319 funds to certify operators. The workgroup is interested in working with them on the common issue of nationwide deicing operator training.

Ag Issues – Ellen Schmitt, EPA Region 3

The workgroup rebroadcast the Crypto webinar on March 9 through the Mid-Atlantic Water Program. The Partnership's Plato Chen, WSSC, and Daphne Pee, Mid-Atlantic Water Program, again did a great job presenting on behalf of the workgroup. They were joined by Ag Advisory Committee member Dr. Ronald Fayer, USDA-ARS Beltsville Agricultural Research Center, who answered many technical questions from participants. Participants were asked to fill out a short survey following the webinar ([webinar recording](#); [online survey](#)). Information on the webinar has been sent to regional and national ag organizations in hopes of getting more feedback on the workgroup's outreach efforts.

The workgroup is again looking for a co-chair. Contact Ellen if you or someone else at your organization is interested.

Reaching Out – Curtis Dalpra, ICPRB

The 2010 Annual Report is complete. It is attached to the email and posted to the website (file name: 2010_AR_final.pdf).

The workgroup is always in need of pictures to use in publications and on the website. Please let Curtis know if you have picture libraries he can access or who he could contact at your organization.

Early Warning/Emergency Response – Carlton Haywood, ICPRB

Carlton Haywood, ICPRB, provided information on follow up items from the January 2011 meeting with Colonial Pipeline.

The Partnership is listed as an interested party for both the U.S. Coast Guard's Area Committee and National Capital Region Area Maritime Security Committee (AMSC). These committees are composed of agencies that respond to emergency events, including oil spills, and other interested parties. Both hold meetings ~ 4 times a year and run emergency response exercises in the region. The dates for their next meetings are below.

Questions were asked about the relevance of these committees to the Partnership's concerns given the Coast Guard's focus on the tidal area of the Potomac. While the EPA has jurisdiction in the event of a spill above the metro area intakes, the Coast Guard often assists in the response efforts. Participation with these committees may provide an opportunity to better understand response procedures and familiarize ourselves with the organizations involved. A suggestion was made to attend one or two of their meetings before deciding how much effort to invest in participation.

AMSC

June 1 - location TBD

October 5 - Alexandria, VA

Area Committee

May 4-5 - Oil spill exercise in the Port of Baltimore. Someone could attend as an observer on May 5.

June 9 - 9:30-11:30, Salisbury Fire Department in Salisbury, MD

Carlton received the contact information for the contractor Colonial Pipeline uses for their spill modeling. He is hoping to get examples of their modeling scenarios and results that can be compared to the results from the models used by ICPRB.

Steve Bieber, MWCOG, is working with Colonial Pipeline to set up another meeting with the utilities. Colonial Pipeline would prefer to share their Emergency Response Plan in-person instead of sending around a redacted version. They are also interested in touring a water treatment plant and learning about utility response plans and updating critical contact lists. A

set of possible dates are being finalized. Members are also interested in reviewing Colonial's Integrity Management Plan and focusing on issues of prevention at the meeting.

Steve reported that the updates to the WARN system discussed at the 2010 annual meeting are set to be completed in the summer of 2012.

Disinfectant By-product Precursors – Mohammad Habibian, WSSC

The workgroup continues to tract two WaterRF projects taking place in other watersheds to better understand sources and control of DBPs. Project updates were provided via email by WSSC's Dr. Jin Shin:

WSSC is currently participating in an advising role (member of Project Advisor Committee) for two Water Research Foundation's Tailored Collaboration projects on watershed sources of disinfection byproducts. The first project, "*Watershed Analysis of Dissolved Organic Matter and Control of Disinfection By-Products*", is led by University of Colorado at Boulder and the City of Fort Collins and aims at characterizing the sources of NOM from the recent pine beetle epidemic in the Rocky Mountain region and how it impacts the formation of DBPs before and after treatment. Preliminary conclusions indicate that the NOM from fresh litter leachate, found in areas close to the infected region, were the hardest to remove by coagulation, while coagulation efficiency improved as NOM characteristics changed by biodegradation further downstream of the watershed. The fresh leachate showed the lowest DBP yield while the old established leachate showed the highest. The results are consistent with the fluorescent and other optical analysis of the NOM that indicated high correlation between DBP formation and NOM aromaticity, which was more abundant in old leachates. The project team has completed most of the planned sampling and analytical work. Remaining tasks include establishing mass balance of NOM throughout the watershed and developing GIS tool for sampling locations.

The second project, "*Sources and Characterization of Organic Carbon in the Clackamas River Basin, Oregon, and their Effects on the Formation of Disinfection By-Products in Finished Drinking Water*", is led by USGS and several utilities in the Clackamas River Watershed (CRW), Oregon. While the first project focuses on the NOM from pedogenic origin, this project investigates the aquagenic organic matter, mainly driven by the seasonal algal bloom in the CRW. The project objectives include identifying the sources of NOM in the Clackamas River Basin that contributed to the seasonal increases in trihalomethane levels, as well as developing optical tools using in-situ fluorescent dissolved organic matter (FDOM) sensor for cost effective monitoring of NOM quantity and quality. The project team has successfully developed and deployed multi-band fluorometer. The monthly and synoptic sampling results showed good correlation with conventional monitoring parameters for NOM, such as SUVA, DOC, and DBPFP. They also initiated pilot studies to investigate treatability of various NOM by coagulation and filtration, and biodegradation study to compare optical properties and DOM precursor content of soil and algal derived NOM. The planned sampling will continue through September 2011.

Utility Committee – Mohammad Habibian, WSSC

WSSC, Fairfax Water, Washington Aqueduct, and the City of Rockville signed a letter and provided comments in response to an Advance Notice of Proposed Rulemaking (ANPRM) issued by the Pipeline and Hazardous Material Safety Administration (PHMSA) regarding on-shore pipeline safety. Similar letters were sent to the EPA administrator and the Homeland Security secretary. The comments focused on the need for special proactive provisions of “Critical Segments” of HCAs such as the Potomac River which serves about 5 million people in the “Federal City” area.

Government Committee – Wes Kleene, VDH

The committee did not meet this quarter, but will be scheduling a call in the next couple of weeks.

2. Water Quality Data workgroup scoping survey

Ellen Schmitt, EPA Region III, summarized results from the survey distributed to members in March. The goal of the survey was to elicit feedback on the interest in creating a workgroup to address issues that could make use of water quality data available for the Potomac River. This survey built on discussions at previous Partnership meetings and focused on whether the Partnership has the resources and interest to pursue the issue further. Eleven member organizations responded to the survey. Results are attached to the email (file name: Survey results re possible WQ data workgroup_April2011.pdf).

While most members support the idea, major concerns remain. Most concerns centered on needing a defined purpose for the group and the potential need for and lack of resources to support IT, data, and staff requirements.

Many ideas for next steps and what the group should take on were discussed at the meeting. Below is a brief summary of proposals:

- Look into the water quality issues experienced during the summer of 2010 at Washington Aqueduct and Fairfax Water. The water was difficult to treat, but little has been done to figure out the source of the problem.
- Develop ability to answer immediate water quality questions. Know who has the data, who to contact, and who the experts are.
- Start identifying data sources
- Structure the group to allow it to address various issues – from emerging contaminants detected in the water to temporary treatability issues. Don’t limit the group to a specific set of issues.
- Need to be able to respond quickly. Therefore need an existing familiarity with the data and analytical methods.
- Workgroups could pose questions that they are interested in and the WQ data group could start pulling relevant data together.
- Purpose and needs should be well defined before the group takes on projects.
- Develop data switchboard/registry to figure out what data is available and who is collecting it.

Generally, there was support for continuing to explore the idea. It was agreed that an ad hoc workgroup would work to further flesh out the group's purpose and possible projects. Cherie Miller (USGS), Beate Wright (Loudoun Water), Steve Bieber (MWCOG), Ellen Schmitt (EPA), and Fairfax Water all volunteered to participate. A call will be held soon to figure out next steps. Contact Karin Bencala if you would like to participate in this effort.

3. Strategic Plan update

Each workgroup chair ran through their proposed changes to the strategic plan. The proposals are attached to the email (file name: DWSPPlan_April26_tracked.doc). If you have comments on any of these plans, email the workgroup chair directly by Friday, May 13.

Reaching Out – The workgroup envisions itself as providing administrative support to other workgroups and Partnership-wide efforts. The group proposes not to proactively seek out projects, but participate at the request of the workgroups. The workgroup intends to help distribute general information (articles, research papers, legislation, etc) to the Partnership.

Questions/comments raised for consideration by the group:

- Should the workgroup use other outreach platforms like Facebook?
- Audience needs to be better defined. Are we trying to reach other utilities, ag groups, watershed groups, and/or the general public?
- How much overlap is appropriate with individual utility outreach efforts on source water issues?

Emerging Contaminants – The group proposes to expand efforts beyond endocrine disrupting chemicals. Results from forthcoming WaterRF projects will be reviewed for information that may inform the workgroup's future plans.

Urban Issues – The mission statement for the group was updated. The workgroup's objectives and goals are proposed to remain the same. They would like to focus on completing a list of recommended stormwater management practices.

Agricultural Issues – The strategic plan was written to include other ag-related contaminants such as nutrients to be addressed following the Crypto effort.

Disinfection By-product Precursors – No changes were proposed. The short term goal to “coordinate efforts with on-going research work for Washington Aqueduct Division of the U.S. Army Corps of Engineers” was removed during the meeting.

Early Warning Monitoring/ Emergency Response – Proposed name change to Early Warning/ Emergency Response since monitoring has never been a focus of the workgroup. Language was added regarding building a mutual understanding of issues between water utilities, emergency response agencies, and operators and owners of significant hazardous waste sources.

References to the NCR WARN system, in addition to the RICCS system, were added.

Joe Hoffman, ICPRB, suggested that the Partnership consider the provision in the Partnership's framework to develop Local Advisory Panels as a means to engage others in the watershed working on pertinent issues. He noted that drinking water quality is a major concern for the general public ([March 28, 2011 Gallup poll](#)). The Potomac Conservancy and Potomac Riverkeeper ([strategic plan](#)) were mentioned as examples of the types of groups we could reach out to. Some members like this idea, but are not sure of the best way to engage these groups. Others think this can be done as long as thought is given to the type and scope of relationships that we are looking for.

Schedule

- Submit written comments on spring version to workgroup chairs by May 13.
- May and June – Workgroups incorporate comments received on first draft and make changes.
- June 20 – Send Karin draft updates.
- June 27 – Karin will send out compiled drafts to members and participants. Please try to get a high level review within your organization before the quarterly meeting.
- July 19 – Review at quarterly meeting. Final comments can be submitted for an additional week.
- July and August – Workgroups make changes taking comments into account.
- August 8 – Send updated version to Karin.
- August 15 – Karin will send out compiled update to members and participants. Please review for approval within your organization. Submit any concerns as soon as possible.
- September 9 – Deadline to submit final comments.
- October 4 – Formal presentation and approval at the annual meeting.

4. Funding

FY2012 contribution requests will remain at the existing level.

5. Announcements

- Pharmaceutical Take Back Day (DEA-sponsored) – Saturday, April 30: many Partnership members have been engaged with locations for this event including Marjorie Copeland, Pat Bowling, and Ellen Schmitt. Information is available on the [DWSPP website](#), including a map of participating locations in the basin. A flyer from the EPA on proper disposal and water quality benefits is attached to the email (file name: TakeBackFlyer4.26.11.pdf).
- Fairfax Water met with a researcher from the Environmental Working Group who was interested in learning about the Partnership and source water protection.
- [Forest Service Federal Register notice](#) on a proposed rulemaking for National Forest System Land Management Planning. The rule would set guidelines for national forest land management plans, including managing forests for drinking water protection. Comments due on May 16.

- A strategic planning effort is underway for the George Washington National Forest. In the document, George Washington Plan Revision: [Analysis of the Management Situation – Evaluation of the need for Change](#), there is a section on drinking water. Downstream intakes in West Virginia and Virginia are listed, but not those in Maryland.

Upcoming meetings:

Tuesday, July 19

Annual Meeting - Tuesday, October 4