



Potomac River Basin  
Drinking Water Source Protection Partnership  
**2010 Annual Meeting Summary**  
October 12, 2010  
Shepherdstown, WV

*Thank you to West Virginia Department of Health and Human Services  
for helping coordinate the 2010 Annual Meeting!*

## **Attendees**

### Utilities

Fairfax Water:

Melissa Billman

Traci Kammer Goldberg

Chuck Murray

Greg Prelewicz

Niffy Saji

Loudoun Water:

Tom Bonacquisti

Beate Wright

Washington Aqueduct:

Tom Jacobus

Shabir Choudhary

WSSC:

Martin Chandler

Plato Chen

Teresa Daniell

Mohammad Habibian

### State and Local Government

City of Rockville:

Judy Ding

Frederick County, MD:

Mark Schweitzer

Ken Orndorff

MD Department of the Environment:

John Grace

Saeid Kasraei

PA Department of Environmental Protection:

Pat Bowling

Joe Lee

VA Department of Environmental Quality:

Sara Grove Jordan

VA Department of Health:

Barry Matthews

Steve Pellei

Washington County, MD:

Julie Pippel

WV Department of Health and Human Resources:

Dave Smith

Bill Toomey

### Federal and Regional Agencies

EPA Region 3:

Vicky Binetti

Chuck Kanetsky

Ellen Schmitt

MWCOG:

Steve Bieber

Mid-Atlantic Water Program:

Daphne Pee

ICPRB:

Karin Bencala

Curtis Dalpra

Carlton Haywood

Audra Lew

USGS:

Bob Shedlock

## Issue Updates

### EPA's Drinking Water Strategy

Vicky Binetti, EPA Region III, provided meeting participants with a description and update of the EPA's strategy to provide clean drinking water. Slides from her presentation are available on the Partnership's website. The basic approach of the strategy is to address contaminants as groups, encourage new drinking water treatment technologies, use multiple authorities to protect drinking water, and share public water system monitoring data. Through a series of events held over the summer, groups of contaminants for regulation and an approach to addressing them have been suggested.

### Water/Wastewater Agency Response Network (WARN) Demonstration

Steve Bieber, MWCOG, and Carlton Haywood, ICPRB, ran a demonstration of how the WARN system could be used by utilities and government agencies in the event of a hazardous spill in the Potomac basin. This system has the potential to be better suited to the needs of Partnership members as access can be limited, it can store documents, and it will track information posted to the site chronologically. The Early Warning/Emergency Response workgroup will run communication exercises this year using WARN and RICCS, and a decision will be made about using either or both of the systems. More information on WARN can be found at <http://www.ncrwarn.org>.

## 2010 Workgroup Activities and 2011 Priorities

Curtis Dalpra, Reaching Out workgroup co-chair, provided participants with a summary of workgroup activities in the past year and highlighted each group's priorities for the coming year. A full report can be found in the 2010 Workgroup Activity Report that follows the meeting summary.

## Strategic Plan Progress Review

The Partnership's 2005 Strategic Plan was reviewed by the workgroup chairs prior to the meeting to gauge progress on the specified objectives and goals. A handout providing an update on this progress was provided both before and at the meeting and a copy follows this meeting summary. Discussion at the meeting focused on identifying issues that the Partnership should consider addressing and how they fit within the workgroup framework and on workgroups that need new objectives and/or goals. The following notes summarize the main points of the discussion for each workgroup, the additional concerns to be discussed as potential topics, and how best to structure the workgroups around these issues.

### Pathogens

Workgroup chair Plato Chen described the original intent of the workgroup and the activities that the group has undertaken over the past couple of years and discussed why the *Cryptosporidium* work has been taken over by the Agricultural Issues workgroup. **A suggestion was made that because pathogens in our water originate from our urban and agricultural landscapes that they would be better addressed in those workgroups.**

Also addressed in this discussion was **how the previous mapping efforts of the workgroup could be used in the context of the Chesapeake Bay Watershed Implementation Plan process to raise awareness of related drinking water issues.** This likely won't be able to be done with data received originally by the Partnership due to confidentiality agreements, but a few members are looking for ways to provide similar information using different datasets.

## **Agricultural Issues**

The focus of the Agricultural Issues workgroup has been on *Cryptosporidium* and developing a message to convey the importance of preventing it from entering our source waters to the agricultural community. The main challenge in doing this is figuring out the most effective way to engage the agricultural community. The group chose to form an advisory committee of agriculture experts to help develop a strategy for doing so.

In addition to a specific outreach strategy related to *Cryptosporidium*, the workgroup would like to have a set of formal objectives and goals that can be added to the Partnership's strategic plan.

The issue of other pathogens originating from ag land was raised as an additional topic for the group. While the main thrust of the group's work is *Cryptosporidium*, the outreach message that has been developed stresses that the same management actions that can prevent *Cryptosporidium* contamination can also address other pathogen and nutrient concerns.

Fairfax Water has experienced seasonal water quality issues related to algae (which is believed to be due to nutrient input from the watershed) that required pre-chlorine treatment. It was suggested that the group to look into this issue. At the same time, it was stressed that the source of the nutrients is likely not limited to agriculture and some research should be done to identify the source before taking any management measures. ICPRB has access to the Chesapeake Bay model and others that might be able to help identify the source(s) of these nutrients. If the Partnership chooses to look into this, one place to start might be to look at water quality data from the utilities. While nutrients can be part of the Ag Issues group's message, the workgroup is not the best place to address the broad nature and potential sources of the problem. **A suggestion was made to form an ad-hoc group to look at the issue and to discuss how to move forward at one of this year's quarterly meetings.**

## **Disinfection By-product Precursors**

This workgroup has attempted to address the issue of disinfection by-product precursors by applying for funding to research both the sources of DBP precursors and how to address them. While funding has not been obtained to date for a project directly in the Potomac watershed, the workgroup remains engaged with related Water Research Foundation projects (particularly two closely related on-going projects on which Partnership members serve on the PAC) and will continue to track these and use the resulting information.

## **Emerging Contaminants**

The Emerging Contaminant workgroup has, for the most part, been dealing with problems as they arise, not necessarily following the path laid out in the strategic plan. Many of the current objectives are being addressed in some form and are really meant to be on-going activities for the group. Other objectives are beyond the capabilities, both in terms of expertise and resources, of the group. As a step toward addressing some of the not-yet-pursued goals, the workgroup plans to identify the pharmaceutical manufacturing plants in the basin this year. **Issues related to hydraulic fracturing associated with shale gas development and uranium mining in Virginia were suggested as possible additional topics that warrant attention.**

## **Early Warning and Emergency Response**

The workgroup's objectives are all on-going efforts. The group plans to continue pursuing available funding from the EPA to conduct a spill exercise and has made developing a relationship with Colonial

Pipeline a priority. No work has been done on the objective to “investigate the feasibility of establishing an enhanced monitoring system and a data sharing network.” Those present at the meeting determined that this does not need to be addressed by the Partnership as MWCOG is working on the issue.

**Urban Issues**

A significant amount of work has been done by the Urban Issues workgroup to identify the sources of urban pollutants and how these pollutants are regulated. The group has found the task of implementation to be difficult and welcomes any feedback or ideas. In the coming year the workgroup would like to hold a webinar focused on deicing practices.

**Reaching Out**

A questionnaire will be emailed out to get feedback on the issues members would like the workgroup to focus on. **A suggested objective was to promote source water knowledge in the basin.** This could be done through presentations at national meetings and conferences. The workgroup is going to develop a presentation that any member could use for outreach presentations.

**Proposed changes**

During the discussion, a number of suggestions for new workgroups or new issues to be addressed were raised. The ideas are listed below and will be discussed by the Partnership in the coming year.

- **Dissolve Pathogens group and have issue addressed within Ag Issues and Urban Issues**
- **New workgroups: Non-point source workgroup, Nutrient workgroup, Data workgroup**
- **New issues of concern: Marcellus Shale, potential for uranium mining in Virginia, invasive species (zebra mussels and water chestnuts), WIP process**

**Next Steps**

Workgroups will work to revise their respective portion of the strategic plan in the coming year. Changes will be discussed and reviewed throughout the year at quarterly meetings with a presentation for final membership approval at the 2011 annual meeting.

**Financial Update**

An update of revenue and expenses as of August 31, 2010, was provided by ICPRB’s Karin Bencala. The handout with this information follows the meeting summary.

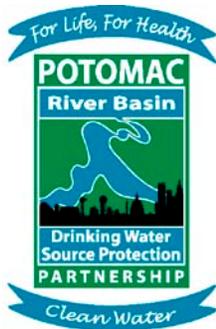
**Passing of the Gavel**

2010 Metro Utility Chair Teresa Daniell, Deputy General Manager of WSSC, passed the gavel to Steve Pellei of Virginia Department of Health (VDH). Steve accepted the gavel on behalf of Wes Kleene, Director of VDH’s Office of Drinking Water, who will be this year’s Government Committee chair.

Committee chair rotation – past and future. **Bold** indicates Partnership chair position.

Year	Metro Utility Chair	Government Committee Chair
2005	WSSC – Mohammad Habibian	<b>ICPRB – Julie Kiang</b>
2006	<b>Fairfax Water – Chuck Murray</b>	EPA – Jon Capacasa
2007	Washington Aqueduct – Tom Jacobus	<b>EPA – Jon Capacasa</b>
2008	<b>Washington Aqueduct – Tom Jacobus</b>	MDE – Bob Summers
2009	Washington Aqueduct – Tom Jacobus	<b>MDE – Bob Summers</b>

2010	<b>WSSC – Teresa Daniell</b>	VADEQ – Scott Kudlas/Jason Erikson
2011	WSSC – Teresa Daniell	<b>VDH – Wes Kleene</b>
2012		<i>West Virginia</i>
2014		<i>District of Columbia</i>
2016		<i>Pennsylvania</i>



## Potomac River Basin Drinking Water Source Protection Partnership

### 2010 Workgroup Activity Report Annual Meeting – October 12, 2010

#### Urban Issues

*This workgroup helps the Partnership to better communicate drinking water needs in the Potomac River basin to the agencies who oversee implementation of urban stormwater management and other NPDES programs. The workgroup has made the impact of roadway deicer salts on drinking water sources and the better use of Clean Water Act programs to protect water supply at intakes as priority issues. The goal of this workgroup is to promote implementation of better stormwater management and other management practices to protect drinking water in the Potomac basin. The initial steps include sponsoring workshops on technical issues, furthering dialogue with agencies responsible for NPDES discharges, stormwater, and roadway management, and gathering information on urban land use trends and current stormwater management practices throughout the basin.*

#### Activities Completed in 2010

- Held an informational workshop on “Leveraging Clean Water Act water quality standards for Source Water Protection in the Potomac Basin.” The keynote talk was provided by Tracy Mehan, former EPA Assistant Administrator for Water, on Clean Water Act and Safe Drinking Water Act objectives and regulatory issues. A presentation summarizing Water Research Foundation Project 4007 (Drinking Water Source Protection Through Effective Use of TMDLs) and Project 2944 (Total Maximum Daily Loads and Drinking Water Utilities) was provided. These projects describe specific measures that have been used to include drinking water objectives in TMDLs. The session also featured presentations from the Potomac basin states on water quality standards (WQS) for stream stretches designated as drinking water supplies. The results of this workshop could be used to help members suggest changes to the WQS during the review process undertaken by each state (typically on a triennial basis). **(Achieves 2010 objective)**
- Participated in the Metropolitan Washington Council of Governments Green Highways workshop in November 2009. **(Achieves 2010 objective)**
- Drafted comments for consideration on proposed EPA Airport Deicing Effluent Guidelines regulation for consideration by selected Partnership utilities and agencies. **(Achieves 2010 objective)**
- Drafted comments on proposed legislation requiring the Maryland State Highway Administration and each local jurisdiction that is responsible for highway maintenance in the state to establish and implement a best practices road salt management program.
- Tracked several regional programs and initiatives that may impact urban source water protection efforts in the Potomac Basin, including the Chesapeake Bay TMDL, State Watershed Implementation Plans, and Clean Water Act Reauthorization for the Chesapeake Bay Program. **(Achieves 2010 objective)**

## **Future Activities**

1. Participate in the development of water quality standards criteria for public water supplies in the Potomac basin by meeting directly with State agencies responsible for WQS development and providing input on water quality issues of interest.
  - As necessary, solicit source water quality data from water utilities that can be submitted to the State agencies to facilitate the development of water quality criteria to enhance existing source water protection in the Potomac basin.
2. Continue to advocate for minimizing the impacts from roadway and airport deicing chemicals on sources of drinking water in the Potomac basin.
  - Enhance existing outreach efforts (including presentation materials) to convey the message of drinking water impacts from chemical deicers. Outreach efforts will consist of meeting with three new stakeholders and/or the development of a webinar to educate stakeholders on the impacts of sodium chloride-based deicers on water supply and provide information on alternative chemicals and snow clearing methods.
3. Continue to track several regional programs and initiatives that may impact urban source water protection efforts in the Potomac basin, including the President's Chesapeake Bay Executive Order, Chesapeake Bay TMDL, State Watershed Implementation Plans, and Clean Water Act Reauthorization for the Chesapeake Bay Program.
4. Identify one specific "urban" project among the State Watershed Implementation Plans where the Partnership can get involved with promoting the message of source water protection. Efforts to assist with implementation of the project will be explored.
5. Invite representatives with Maryland Department of the Environment (or other basin state agency) to speak about municipal separate storm sewer (MS4) permit renewals and the conditions that have been incorporated to provide urban stream protection, including road salt management.

## **Reaching Out**

*This workgroup provides the Partnership with a mechanism to transfer information on Partnership activities and a way to assist in growing the Partnership by developing a marketing strategy to reach out to others in the watershed. The workgroup works to create alliances with other stakeholders in developing a plan to increase communications throughout the Potomac River basin.*

## **Activities Completed in 2010**

- Assisted the Ag Issues workgroup with finding appropriate photos for the *Manure du Jour* webinar session.
- Served as a resource for reporters on the impacts of road salt and deicing chemicals on source waters during this year's large snow events.
- Monitored MWCOG water quality blogging initiative.
- Provided feedback to EPA Region 3 on blog posts for their blog "Healthy Waters for EPA's Mid-Atlantic Region."
- Maintained the Partnership's website.
- Presented to and held meetings with outside organizations interested in the Partnership's efforts, including at presentations ICPRB made to several international delegations.

- Assisted with the preparation and distribution of the 2009 Annual Report.
- Worked with the Utility and Government Committee chairpersons and ICPRB to organize the annual meeting.
- Began drafting 2010 annual report.

#### **Future Activities**

1. Discuss recruitment of new members, especially smaller, upstream systems and/or groundwater systems.
2. Coordinate with various Partnership workgroups to design informational webpages on specific topics of interest.
3. Continue to pursue contact with other federal agencies having mutual interests in the Potomac watershed.
4. Continue to update the website and increase the use of our logo as a branding tool.
5. Continue to promote DWSPP during ICPRB water resources outreach efforts.

### **Disinfectant By-product Precursors**

*Natural organic matter in source water can be transformed into disinfection by-products (DBP), such as trihalomethanes, as a result of water treatment processes. Incorporating source water protection measures to address the DBP problem is a crucial component of the multiple-barrier approach and may be more efficient than simply addressing the issue on a system-by-system basis. Most efforts at controlling disinfection by-product formation (DBPF) have focused on activities at the treatment plant and in the distribution system. One area of drinking water system management that has not been widely discussed in the context of DBPF is controlling the precursor types and level via source water protection measures. The DBP Precursors workgroup was formed to pursue research ideas related to this area.*

#### **Activities Completed in 2010**

The workgroup continues to track Water Research Foundation projects that are investigating the significance of land and water based disinfection-by-product (DBPs) precursors for controlling DBPs in drinking water. Two water utilities came up with considerable funding to support Water Research Foundation studies in their watersheds. The first project, being conducted by the University of Colorado and the City of Fort Collins (CO), aims to characterize the source of organic matter that contributes to DBP formation, primarily focusing on the land based sources of DBP precursors. Another group, led by U.S. Geological Survey, focuses on investigating water-based organics, as well as developing techniques to rapidly identify the characteristics of organic matter in a reservoir to better control DBPs. The WSSC is participating in both projects in an advisory role. Per our recommendation, the two teams have included treatability studies in their scope of work, with the goal of steering them to produce practical tools for DBP control. The total budget for these two projects is \$653,490, with \$230,000 provided by the Water Research Foundation and the remaining \$423,490 by those who proposed the projects. The projects are anticipated to be completed by 2012.

#### **Future Activities**

The DBP workgroup will continue to be involved in and monitor the progress and finding of these two projects in order to assess their applicability to our region and to determine if any additional projects may be needed for the Partnership.

## Emerging Contaminants

*The role of this workgroup is to support the Partnership by tracking and reporting on both research and monitoring efforts of persistent and newly identified threats posed to the Potomac River drinking water supply. An initial focus of the workgroup is on endocrine disrupting chemical (EDCs). The workgroup's short-term goals include defining and prioritizing EDCs based on a review of current knowledge and consultation with experts, assessing potential sources for the priority EDCs in the Potomac River, and identifying appropriate best management practices for their control. The workgroup's long-term goal is to enhance, through monitoring ongoing research, the Partnership's and local stakeholders' understanding of EDC sources, distribution, possible human and ecological health effects, treatability, and the management practices to limit their proliferation in the environment.*

### Activities Completed in 2010

- Tracked chemical regulation initiatives. **(Achieves 2010 objective)**
  - The Safe Chemicals Act of 2010 was introduced by Senator Lautenberg of New Jersey. The workgroup drafted a letter supporting the intent of the legislation but did not submit it after consulting the several national associations who advised the group to wait until it appeared likely to be voted on.
- Worked with the Government Committee and EPA Region 3 and Headquarters to support several of the participating locations in the Drug Enforcement Administration's National Take-Back Day on September 25, 2010. **(Achieves 2010 objective)**
- Workgroup members continued to participate in the Water Research Foundation project 4169, Water Utility Framework for Responding to Emerging Contaminant Issues. The project team completed an extensive literature review this year and a framework for how utilities could address emerging contaminants was drafted but did not fit the intent of the project. Thus, the consultants have a new team revising the framework. The workshop that was to be held this summer has been postponed. The hope is that the Potomac region will still be used as a case study once the framework is complete. **(Achieves 2010 objective)**
- Sponsored a EPA "listening session" on the EPA's new strategy for protecting public health as it relates to drinking water (<http://www.epa.gov/safewater/sdwa/dwstrategy.html>) on August 16, 2010, at the Metropolitan Washington Council of Governments. Presentations from the EPA Office of Ground Water and Drinking Water and Office of Research and Development were followed by an open forum for feedback from audience participants. The session focused on two elements of the proposed strategy – "address contaminants as groups rather than one at a time so that enhancement of drinking water protection can be achieved cost-effectively" and "foster development of new drinking water technologies to address health risks posed by a broad array of contaminants."
- Periodically updated the Partnership website with upcoming conferences, symposia, seminars, workshops, and webcasts.
- The workgroup continued to track information on various federal and state legislative efforts related to safe drug disposal and emerging contaminant research.

- A workgroup member attended the House Subcommittee on Energy and the Environment hearing entitled, "Endocrine Disrupting Chemicals in Drinking Water: Risks to Human Health and the Environment," on February 25, 2010, and reported that the panel members pushed for regulating these chemicals and enhancing water treatment to remove them from drinking water.
- A workgroup member attended a meeting for Water Resource Foundation project 4261 "Building a National Utility Network to Address EDC/PPCP Issues" workshop held in conjunction with the June American Water Works Annual Conference and Exposition in Chicago.
- Washington Aqueduct has made significant progress in its major study to prioritize anticipated future drinking water quality challenges. Using a process that is informed by an expert panel and community stakeholders, Washington Aqueduct is considering contaminants of emerging concern as well as pathogens, disinfection byproducts, and other contaminants that might pose health or aesthetic concerns. Ultimately, the project will identify the most promising treatment and/or non-treatment strategies to pursue.
- Three workgroup members attended the PA Water Symposium on May 5 and 6, which included oral presentations and posters on the occurrence of emerging contaminants and innovative treatment.
- Some workgroup members tracked issues related to the composition of water used in the hydraulic fracturing of the Marcellus Shale to stimulate gas production based on concerns over the volume of water that could be discharged after use and reports that some of the additives might have endocrine disrupting potential.

### Future Activities

2011 priorities appear in **BOLD**.

#### Pharmaceutical Disposal and Waste

1. **Determine the location of pharmaceutical manufacturing facilities within the basin as they have recently been identified as major sources of pharmaceuticals in the wastestreams sent to sewage treatment plants. Develop a map of these locations. Consider contacting and/or meeting with the manufacturers to discuss possible source water protection efforts.**
2. Coordinate with the Reaching Out workgroup and the Government Committee on safe medicine disposal outreach and/or promoting national and regional take-back events.
3. Track significant legislative efforts related to safe drug disposal for applicability within jurisdictions within the Potomac River basin.

#### Emerging Contaminant-Related Regulation

4. **Monitor the development of EPA's proposed Drinking Water Strategy especially the items on regulating contaminants as groups and innovative technologies to address health risks from a broad suite of chemicals.**
5. **Track new efforts by the federal government to transform the way that industrial chemicals are regulated (Safe Chemicals Act) with the goal of drafting a statement or white paper in coordination with national organizations.**

#### Water Research Foundation Projects

*Potomac River Basin Drinking Water Source Protection Partnership  
2010 Workgroup Activity Reports*

6. **Continue participation in the ongoing Water Research Foundation research project #4169, Water Utility Framework for Responding to Emerging Contaminant Issues, to ensure the project provides a valuable tool for water utilities and the Potomac Partnership.**
7. Participate in Water Research Foundation project #4261 "Building a National Utility Network to Address EDC/PPCP Issues".
8. Track Water Research Foundation projects related to emerging contaminants and, when needed, propose in-kind or cash support to facilitate them.

#### Emerging Contaminant Research

9. Continue tracking research on emerging contaminants by reviewing academic, industry, and government publications and reports; and by attending conferences, seminars, symposia, workshops, and webinars.
10. Track, support, and participate in emerging contaminant monitoring programs that may be undertaken by government agencies or utilities, if of value to the Partnership.

#### Communications

11. Support the Reaching Out workgroup in its efforts to update the Partnership's website and to develop public communications tools for responding to emerging contaminant issues.
12. Periodically update and post the list of upcoming conferences, webinars etc. on the Partnership website.

### **Agricultural Issues**

The Agricultural Issues (Ag) workgroup was formed to take an active role in building alliances with the agricultural community in order to minimize water pollution, particularly *Cryptosporidium*, in the region's sources of drinking water. The Pathogens workgroup identified *Cryptosporidium* as the most significant pathogenic public health threat to water suppliers. Since the completion of the *Cryptosporidium* Source Tracking Project in 2008, which identified the sources of *Cryptosporidium* in the basin, the Pathogen and Ag workgroups have joined together to develop an educational outreach program to raise awareness of the links between agriculture, *Cryptosporidium*, and drinking water.

The Ag workgroup is planning to reach out to the United States Department of Agriculture (USDA) Natural Resource Conservation Service, local soil and water conservation districts, USDA Farm Service Agency, and USDA Cooperative State Research, Education and Extension Service. The Ag workgroup will benefit from these agencies in terms of their established relationships with the agricultural community, technical and educational expertise, and knowledge of, and access to, federal and state programs that aid in the implementation of best management practices (BMP).

#### **Activities Completed in 2010**

- **Presented to and received feedback from the Maryland State Technical Committee (STAC)**  
In November 2009, Ag Issues Workgroup members presented to the Maryland STAC on the Partnership's work and efforts related to reducing the risk of *Cryptosporidium* entering our source waters. Ag Issues workgroup members also requested and received feedback on the *Cryptosporidium* message developed and asked for advice on how to engage the agriculture community in the issue of *Cryptosporidium* and drinking water. **(Achieves 2010 objective)**
- **Engaged local and national experts and formed an advisory committee**

After talking with many agricultural researchers and technicians, there were several clear recommendations: work with the conservation districts, local extension specialists, and veterinarians; form an advisory committee; and make the message less technical and add more information on herd health. The Ag Issues Workgroup decided that each of these goals would be much more achievable with the help of an advisory committee comprised of a number of individuals with expertise in various areas, from veterinarian researchers to extension agents. A current list of the Ag Issues Advisory Committee members can be found on the Potomac DWSP's website.

- **Education and information-gathering webinar on *Cryptosporidium*, Cattle and Drinking Water**  
The Ag Issues workgroup, with input from the Ag Advisory Committee, organized a webinar entitled, "*Cryptosporidium*, Cattle & Drinking Water: Critical linkages between best management practices (BMPs) and safe drinking water." This ran live on July 22 as part of the Penn State University Agriculture and Environment Center's *Manure du Jour* webinar series. The purpose was to provide information on the link between *Cryptosporidium* and drinking water and to gather information from participants on the best way to present this information to other audiences. The webinar will be archived at the Penn State webinar library ([www.aec.cas.psu.edu](http://www.aec.cas.psu.edu)) where participants can continue to view the slides and complete the survey questions. **(Achieves 2010 objective)**

#### **Future Activities**

1. Review feedback from *Manure du Jour* webinar participants on *Cryptosporidium* message and outreach approach.
2. Develop draft outreach strategy for Ag Issues workgroup.
3. Coordinate with the Ag Advisory Committee to finalize the workgroup's outreach strategy.
4. Look for outreach opportunities at existing workshops and ag events in the basin.
5. Coordinate with ag agencies to conduct on-farm audits.
6. Identify common issue areas with the Emerging Contaminants workgroup where efforts could have synergistic benefits.

### **Pathogens**

*The Pathogens workgroup was formed to provide the Partnership with information on the sources of pathogens that may affect the raw water supplied by the Potomac River and its tributaries. The workgroup has identified Cryptosporidium as the most significant pathogenic public health threat to water suppliers. In 2006, the DWSP was awarded a grant by the EPA Regional Applied Research Effort (RARE) to conduct a Cryptosporidium monitoring and source tracking project in cooperation with the EPA Office of Research and Development and the Centers for Disease Control and Prevention.*

#### **Activities Completed in 2010**

The Pathogens workgroup is supporting the Ag Issues workgroup to address *Cryptosporidium* as necessary, but is otherwise not currently active. This year the workgroup provided comments on the webinar presentation "*Cryptosporidium*, Cattle & Drinking Water: Critical linkages between best management practices (BMPs) and safe drinking water." Led by the Ag Issues workgroup and participated in conversations on the development of an outreach strategy.

#### **Future Activities**

Continue to assist the Ag workgroup and others as needed.

## **Early Warning and Emergency Response**

*Early warning systems can potentially detect contamination events before they reach water supply intakes. This workgroup was formed to monitor ongoing work in this field, to propose specific projects to benefit water suppliers in the Potomac basin, and to ensure that an emergency response plan is in place.*

### **Activities Completed in 2010**

- At the 2010 annual meeting the capabilities of the Water/Wastewater Agency Response Network (WARN) and its interaction with the Regional Incident Communication and Coordination System (RICCS) were demonstrated and an update of the early warning monitoring system on the Potomac was provided by MWCOG staff. **(Achieves 2010 objective)**
- The After Action Report from the 2008 spill exercise was reviewed and utilities provided progress updates on items specific to them.
- The workgroup chair met with Metropolitan Washington Council of Governments (MWCOG) staff to learn more about the WARN system that is being developed for the Nation Capital Region (NCR). The NCR WARN website has the ability to exchange messages among members during an event via a password-protected portal. All of the messages are time and date stamped making it easier to prepare an after action report. Several enhancements were made to the system to allow for the possibility of the tool to be tailored to the needs of Partnership members and upstream utilities.
- The possibility for holding another hazardous spill response exercise to build off of the lessons learned from the 2008 exercise was discussed with the EPA, which has funds available for this.
- Communication procedures between the RICCS system and ICPRB staff responsible for running time-of-travel models were reviewed and tested.
- The factsheet, Interstate Notification & Time-of-Travel Estimates for Spills in the Potomac River Basin, was updated with current contact information for regional response personnel. This information was posted to the DWSPP and ICPRB websites and distributed at the annual meeting.

### **Future Activities**

1. Establish an annual review process between the Partnership and Colonial Pipeline to ensure that the best source water protection measures are in place and that Colonial Pipeline is aware of and acting on the Partnership's drinking water concerns.
2. Test communication procedures between ICPRB, RICCS, and WARN systems. Provide support to agencies not familiar with the tools.
3. Review and work to resolve communication gaps that were brought up in the 2008 exercise or that continue to be an outstanding issue.
4. Develop a plan for holding another spill exercise with the EPA, including goals, participants, and a timeline.
5. Complete annual update of the factsheet, Interstate Notification & Time-of-Travel Estimates for Spills in the Potomac River Basin.

# Potomac River Basin Drinking Water Source Protection Partnership Strategic Plan Progress Review

October 2010

## **Mission Statement** (updated 2009)

*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.*

## **Partnership Objectives**

- Identify regional priorities for source water protection efforts.
- Coordinate, where appropriate, source water and drinking water protection efforts to benefit multiple water systems.
- Establish and maintain a coordinated dialogue between water suppliers and government agencies involved in drinking water source protection within the Potomac River Watershed.
- Establish and maintain a coordinated dialogue between the Partnership agencies and other groups working towards watershed protection within the Potomac River Watershed.
- Promote information sharing among groups working on, and affected by, safe drinking water issues.
- Enhance coordinated approaches to water supply protection measures in the Potomac basin, especially for boundary waters and for project planning that impacts interstate waterways.
- Develop new initiatives within the drinking water community and with partners that will fill program voids ensuring higher quality drinking water supplies.

## Pathogens

*This workgroup will provide the Partnership with information on pathogens which may affect the raw water supplied by the Potomac River and its tributaries. The workgroup will seek to understand the sources of pathogens in the Potomac watershed and methods for controlling their introduction into the water supply. The workgroup will try to create alliances with other stakeholders in developing a plan to reduce pathogen loads in the river.*

### Workgroup Objectives

A1) Develop an understanding of the possible sources of *Cryptosporidium* in the Potomac watershed, especially *Cryptosporidium parvum*. **{COMPLETE}**

A2) Evaluate the available methods for identifying and characterizing the actual sources of *Cryptosporidium* in the Potomac watershed. **{COMPLETE}**

A3) Compile information on pathogens data in the Potomac basin including identification of watersheds that contribute significant loadings of *Cryptosporidium* to the main stem of the river (upstream of Little Falls). **{PARTIALLY COMPLETE}**

A4) Develop a strategy to incorporate stakeholders and communities in a plan to reduce pathogens in the Potomac River, including the agricultural community. **{COMPLETE}**

### Workgroup Activities

Short term:

- Conduct GIS mapping of intake locations and possible sources of pathogen contamination including combined sewer overflows, wastewater treatment plants, and agricultural operations from existing databases. **{PARTIALLY COMPLETE}**
- Review current field studies on *Cryptosporidium* sources. Investigate the best available methods for source identification. **{COMPLETE}**
- Conduct workshop on pathogens, focusing on *Cryptosporidium*. **{COMPLETE}**

Long term:

- Develop proposal for more detailed study of areas that are likely sources of pathogens. **{NOT YET PURSUED}**
- Contact stakeholder communities to develop a plan to reduce pathogens in the Potomac River. **{NOT YET PURSUED}**

### Workgroup Measures of Success:

- Conduct pathogens workshop. **{ACHIEVED}**
- Create database and mapping of potential pathogen sources. **{ACHIEVED}**
- Identify best candidate methods for field and laboratory studies to characterize pathogen sources, and in particular, sources of *Cryptosporidium*. **{ACHIEVED}**
- Develop scope of work for future research. **{ACHIEVED}**

## Additional Projects

**2005:** One-day pathogen workshop focused on *Cryptosporidium*

Contacted state agencies to obtain animal populations data for determining hotspots in the watershed.

**2006:** Submitted USDA National Research Initiative (NRI) grant - Submitted in January 2006; notified that grant was not approved in September 2006.

EPA RARE grant - Project approval received in February 2006

Develop a sampling plan for *Cryptosporidium* in the Potomac River watershed. - Partially completed through source tracking project

Evaluate the available methods for identifying and characterizing the actual sources of *cryptosporidium* in the Potomac watershed. - Completed through the source tracking project

**2007:** Carried out the EPA RARE grant.

**2008:** Completed crypto monitoring and report the finding

Established a dialogue with state agriculture agencies and cattle operator association regarding BMPs and stream fencing - partially completed through Ag workshop.

Held Ag 101 workshop.

Toured dairy and beef cattle farms.

Completed *Cryptosporidium* source tracking report.

**2009:** Reviewed literature and talked with researchers about effectiveness of specific BMPs in reducing *Cryptosporidium* from agricultural runoff.

Organize meeting of Partnership members, with assistance from an external advisory group (made up of representatives from Natural Resources Conservation Service (NRCS) , universities, state agencies, Soil and Water Conservation Districts (SWCDs), private sectors), to develop a strategy for addressing Crypto. (On-going)

**2010:** Supported the Ag workgroup to address *Cryptosporidium* as necessary.

Assisted with *Manure du Jour* webinar in July 2010.

## Disinfectant By-Product (DBP) Precursors

*This workgroup is intended to develop better information for Partnership utilities to address disinfection byproducts issues from a source water protection approach. This workgroup shall focus on prioritizing and conducting research to assess the relative contribution of different watershed sources (i.e., land-based/allochthonous vs. in-river/autochthonous) of natural organic matter/DBP precursors to treated/distributed water DBP levels. The goal of this workgroup is to focus source water protection efforts on those sources most significant to DBP levels in treated/distributed water and to identify the most feasible and cost effective source water protection measures. The initial steps include identifying priority research and partners as well as preparing technical proposals and obtaining funding. The research findings will then be used to identify the significant contributing sources in the watershed and to assess whether source water protection measures targeted at these sources would be feasible and cost-effective. This workgroup will develop recommendations for source protection measures to address regional utility DBP issues.*

### Workgroup Objectives

- C1) Identify significance and nature of DBP concerns for specific Potomac River water utilities and, if possible, prioritize sources of DBP precursors. **{ON-GOING}**
- C2) Identify priority research regarding relative source contributions of DBP precursors (i.e., how much of the DBPs in treated water can be attributed to allochthonous/land vs. autochthonous/algae sources). **{ON-GOING}**
- C3) Obtain funding to perform priority research on relative source contributions of DBP precursors in the Potomac. **{PARTIALLY COMPLETE}**
- C4) Recommend measures for source water protection activities. **{NOT YET PURSUED}**

### Workgroup Activities

#### Short term:

- Perform literature review and develop draft scope of work for priority research regarding relative source contributions of DBP precursors. **{COMPLETE}**
- Identify potential research partners and funding sources (grants, in-kind services, etc.). **{COMPLETE}**
- Coordinate efforts with on-going research work for Washington Aqueduct Division of the U.S. Army Corps of Engineers. **{NOT YET PURSUED}**
- Obtain information from state agencies to identify which systems on the Potomac may have DBP issues. **{NOT YET PURSUED}**

#### Long term:

- Oversee and coordinate research efforts on successful grants. **{PARTIALLY COMPLETE}**
- Continue to collect information from related research efforts for other sources as appropriate. **{ON-GOING}**
- Identify primary targets for source protection based on research findings. **{NOT YET PURSUED}**

### Workgroup Measures of Success

- Identify DBP issues. **{PARTIALLY COMPLETE}**
- Identify priority research in detailed scope of work. **{PARTIALLY COMPLETE}**
- Development of grant and funding applications. **{PARTIALLY COMPLETE}**

## Additional Projects

**2005:** Held subcommittee meetings to develop framework for studies.

A literature review was initiated by the subcommittee to find relevant studies on the issue of relative contributions of different DBP precursor sources within watersheds and their fate and transport through the watershed and treatment plant.

**2006:** Finalized framework of research plan/proposal for determining relative DBP precursor source contributions and identified funding sources/research partners.

**2008:** Pursued a Tailored Collaboration project with AwwaRF on the relative contributions of watershed vegetation and algae to DBP levels in finished water for several Potomac WTPs. Project not selected.

**2009:** Contacted appropriate organizations and volunteered to serve as case study for potential 2009 WRF project on watershed sources of DBP precursors. Project not selected.

Organized Potomac River utilities to serve as participating utilities and regional case study in proposed 2009 WRF project #4245 (Effect of Terrestrial and Aquatic Sources of Precursors on Disinfection By-Product Formation and Control Formation). Project not selected.

**2010:** Pursued funding approval by the Water Research Foundation for the first phase of the study entitled, Impacts of Coagulation-Sedimentation and Precursor Types on Disinfection Byproducts Formation, and support the study if it is funded. Project not selected.

## Emerging Contaminants

*The role of the Emerging Contaminants Workgroup is to support the Partnership by tracking and reporting on findings of research and monitoring of persistent and newly identified threats posed to the Potomac River drinking water supply. An initial focus of the workgroup shall be on endocrine disrupting chemicals(EDCs). The workgroup's short-term goals include defining and prioritizing EDCs based on a review of current knowledge and consultation with experts, assessing potential sources for the priority EDCs in the Potomac River, and identifying appropriate best management practices for their control. The workgroup's long-term goal is to enhance, through monitoring of ongoing research by others, the Partnership's and local stakeholders' understanding of EDCs identity, sources, distribution, possible human and ecological health effects, treatability, and management practices to limit their proliferation in the environment*

### Workgroup Objectives

- B1) Define and prioritize emerging contaminants; modify and amend as new data are reported. Focus initially on contaminants that are or have potential to be endocrine disrupting and that have already been observed in rivers or ground water used for water supply. **{ON-GOING}**
- B2) Monitor research on detection methods, surrogate indicators, human and ecological/environmental health effects, and epidemiological/toxicological studies. **{ON-GOING}**
- B3) Identify potential sources (point source and non-point source) of identified priority emerging contaminants. **{ON-GOING}**
- B4) Identify patterns of contaminant distribution and persistence, especially downstream of identified point sources. **{NOT YET PURSUED}**
- B5) Provide information to the Partnership on any observed effects in river biota in the areas of contamination. **{PARTIALLY COMPLETE}**
- B6) Identify control measures and best management practices to reduce or minimize proliferation of emerging contaminants in the Potomac River. **{ON-GOING}**
- B7) Develop a communication strategy to educate stakeholders on control measures and best management practices. **{PARTIALLY COMPLETE}**

### Workgroup Activities

#### Short term:

- Identify and contact interested agencies and individuals to facilitate non-duplicative coordination of efforts and communication of unpublished research; survey interested parties to assess what resources are already available. **{PARTIALLY COMPLETE/ON-GOING}**
- Develop a GIS of potential contaminant source locations. **{NOT YET PURSUED}**
- Conduct workshop on issues relating to emerging contaminants that are relevant to the Potomac Basin. **{COMPLETE}**

#### Long term:

- Track ongoing research to identify and detect priority emerging contaminants, and track ongoing research on human and ecological/environmental health effects of exposure to specific substances; track progress in understanding which substances are responsible for observed wildlife effects. **{PARTIALLY COMPLETE/ON-GOING}**
- Prepare a brief annual literature survey summary/newsletter to track the state of research; when feasible, attend local and national conferences, symposia and seminars on relevant topics. **{ON-GOING}**
- Approximately every 5 years sponsor a seminar or workshop on current research. **{PARTIALLY COMPLETE/ON-GOING}**
- Identify funding sources and resources needed to support monitoring. **{NOT YET PURSUED}**
- Provide information on the effectiveness of biological indicators for potential harmful effects of human consumption of source water. **{NOT YET PURSUED}**

### Workgroup Measures of Success

- Listing of identified priority emerging contaminants to be monitored. **{NOT YET PURSUED}**
- Preliminary GIS layer(s) showing potential sources (point and non-point). **{NOT YET PURSUED}**
- Initial literature survey of research progress. **{ACHIEVED}**
- Conduct emerging contaminants workshop. **{ACHIEVED}**

### Additional Projects

**2005:** Workshop on emerging contaminants and water supply

**2007:** Reviewed USGS research report containing results of a reconnaissance of emerging contaminants in upstream waters of the Potomac River basin and in fish plasma. Prepared a summary and offered comments, emphasizing its stated intent as a study of contaminant occurrence only. The workgroup also recommended further studies to examine contaminant fate and transport, distribution patterns, and human health and ecological health effects.

Convened a workshop on Emerging Contaminant Challenges – Alternative Approaches for Water Utilities

Tracked research on contaminants of emerging concern, by attending conferences and symposia, reviewing publications and research reports, and by contacting researchers directly.

**2008:** Using the information from the foregoing resources, the workgroup prepared a comprehensive compilation of information about EDCs and PPCPs. A first draft in “frequently-asked-questions” format was circulated to both EC and Reaching Out workgroup members.

**2009:** Updated EC Workgroup webpages, adding relevant links to other websites including individual utilities, WRF, USGS, and also links to workgroup review summaries.

Drafted comments on the Drug Enforcement Administration's request for input on the disposal of controlled substances by persons not registered with DEA. Submitted by ICPRB on behalf of the Partnership.

Utility members of the workgroup drafted comments to an EPA Information Collection Request regarding a Questionnaire for Drinking Water Utilities Participating in Emerging Contaminant Sampling Program. Comments were submitted by the Metropolitan Area Utility Source Water Protection Committee.

Some members helped organize an educational event in Frederick County, MD, on proper disposal of medicines.

**2010:** Worked with EPA and others to organize three take back events in conjunction with the nationwide Drug Enforcement Administration take back initiative.

Sponsored a EPA “listening session” on the EPA’s new Drinking Water Strategy.

**On-going:** Support the Reaching Out workgroup in updating the Partnership’s website and developing public communications tools for responding to emerging contaminant issues. The development of a communications tool to respond to emerging contaminant issues has not been started. This is the focus of a WRF project and the workgroup will wait for the results of the project before acting.

Track new efforts by the federal government to transform the way that industrial chemicals are regulated with the goal of drafting a statement or white paper. Tracking is an on-going effort. In 2010, tracked the Safe Chemical Act of 2010. A white paper is likely not possible, but letters in support of legislation may be.

Track significant legislative efforts related to safe drug disposal for applicability within the Potomac basin.

Track WRF projects related to emerging contaminants and, when needed, propose in-kind or cash support to facilitate them.

Track, support, and participate in emerging contaminant monitoring programs that may be undertaken by government agencies or utilities, if of value to the Partnership.

Periodically update list of upcoming conferences, symposia, seminars, workshops, and webcasts.

Participate in the upcoming WRF research project #4169, Water Utility Framework for Responding to Emerging Contaminant Issues, to ensure the Potomac case study is prominent and successful.

## Early Warning Monitoring/Emergency Response

*This workgroup is intended to better prepare the Partnership's member utilities to respond in the event of a spill or other incident that affects their water supplies. The workgroup will evaluate the need for an early warning monitoring system for the Potomac River and its tributaries and help to coordinate the development of needed components of such a system. The workgroup will also assist in the development of an emergency response plan to improve communication among all affected utilities in the event of a water supply emergency.*

### Workgroup Objectives

- D1) Ensure that an emergency communications system and protocol reflecting the specific needs of the water supply community is in place and understood. **{ON-GOING}**
- D2) Investigate the feasibility of establishing an enhanced monitoring system and a data sharing network.
- D3) Establish liaison with petroleum pipeline industry and identify needs to develop liaisons with other industries. **{ON-GOING}**

### Workgroup Activities

#### Short term:

- The Metropolitan Washington Council of Governments (MWCOG) has developed the Regional Incident Communication and Coordination System (RICCS) to facilitate communications in the event of emergencies. RICCS allows registered users to notify others of significant events through a centralized system that delivers messages to email addresses, cell-phones, and pagers. For most types of emergencies, the RICCS system is confined to the immediate Washington, D.C. metropolitan area (D.C. metro area) that includes MWCOG's member jurisdictions. However, because of the upstream-downstream connection of the Potomac River and its tributaries as the area's water supply source, the DWSP Partnership will work with MWCOG to enroll Partnership members in the RICCS water group regardless of their location. **{IN PROGRESS}**
- The Partnership will create a one-page summary of emergency communications procedures for distribution to water utilities. The protocol will reflect the emergency plan developed for the DC metro area by MWCOG, with any needed modifications to accommodate the larger coverage of the Partnership. **{COMPLETE}**

#### Long term:

- An enhanced water quality monitoring system can provide early warning of contamination events before the materials reach water supply intakes. The Partnership will investigate the feasibility of developing an enhanced monitoring system. **{ON-GOING}**
- Water utilities already collect a great deal of water quality data as part of their normal operations. Sharing of this data amongst the many utilities sharing the Potomac River and its tributaries as their source can benefit operations. The Partnership will investigate the feasibility of developing a real-time data sharing network amongst the water utilities of the Partnership. Monitoring data from the United States Geological Survey (USGS) gages can also be included in this network to complete the early warning monitoring system.
- Establish contacts with petroleum pipeline industry and other industries as needed. **{ON-GOING}**

### Workgroup Measures of Success

- Increase participation of upstream water utilities in the RICCS system. **{IN PROGRESS}**
- Distribute concise emergency communication procedures. **{ACHIEVED}**
- Provide status report to the Partnership on the feasibility of developing an early warning monitoring system and data sharing network. **{IN PROGRESS}**
- Establish contact with petroleum industry. **{IN PROGRESS}**

## Additional Projects

**2004:** Held half-day seminar on early warning systems.

**2005:** Drafted a one-page summary of emergency procedures, outlining the communications plan should an event threaten Potomac River water supply. This summary is based largely on the MWCOG water emergency plan, and is pending finalization of that document.

Drafted emergency contact list.

Compiled a list of monitored parameters at each member water supplier.

Monitored the progress of MWCOG projects related to water security.

Wrote a proposal to install monitoring equipment at Whites Ferry.

**2006:** Evaluation of RiverSpill Model/Spill Exercises.

Updated emergency procedures and contact list.

**2007:** Initiated a pipeline safety review for the Potomac River basin.

Initiated contact with Colonial Pipeline.

Maintained a summary of emergency procedures, based largely on the MWCOG water emergency plan, outlining the communications plan should an event threaten Potomac River water supply. The list of emergency contacts for water utilities and government agencies, included in this plan, was updated.

ICPRB, MWCOG, and SAIC prepared a proposal to update the Potomac spill model to ICWater (Incident Command Tool for Protecting Drinking Water), calibrate with site-specific time-of-travel data, including new data from USGS, update/verify emergency contact information for upstream intakes, and conduct additional spill exercises

**2008:** Coordinated the Potomac River Spill Tabletop Exercise.

**2009:** Transmitted updated water supply intake locations to Colonial Pipeline.

Created a one-page information sheet on Potomac Basin spill notification procedures.

Initiated further discussion with the EPA Region 3 on-scene coordinator regarding Incident Command Structure in the event of a spill emergency that has a water supply impact

**2010:** Reviewed spill exercise after-action report by Horsley-Witten and tracked completion of recommended actions.

Updated contact information for "Interstate Notification & Time-of-Travel Estimates for Spills in the Potomac River Basin"

Conducted spill notification exercises.

## Urban Issues

*This workgroup is intended to position the Partnership to better communicate drinking water needs in the Potomac River Basin to the agencies who oversee implementation of urban stormwater management programs. These agencies may include state agencies, local jurisdictions, or regional planning districts or planning commissions. This workgroup shall focus on urban stormwater including urban runoff, combined sewer overflows, and sanitary sewer overflows associated with storm activity. The goal of this workgroup is to promote implementation of better stormwater management to protect drinking water in the Potomac. The initial steps include gathering information on urban land use trends and on current stormwater management practices throughout the basin. After this has been completed, priority communities will be identified and a dialogue started with those communities. This workgroup will develop a list of recommended urban stormwater practices to be used for advocacy throughout the watershed.*

### Workgroup Objectives

- E1) Improve communication between appropriate urban stormwater agencies to both educate Partnership members on urban stormwater issues in the Potomac River Basin and to educate agencies on drinking water concerns. **{IN PROGRESS}**
- E2) Advocate for implementation of management practices that will better protect drinking water in the Potomac River Basin. **{IN PROGRESS}**
- E3) Support relevant agencies in obtaining funding to implement projects where applicable. **{NOT YET PURSUED}**

### Workgroup Activities

#### Short term:

- Investigate and report on projected trends of urban areas in Potomac River Basin. Obtain currently available information on projected land use, specifically focusing on urban and suburban areas. **{COMPLETE}**
- Characterize currently established stormwater management requirements in the Potomac River Basin. Obtain information from state stormwater agencies to characterize how stormwater is managed within various areas of the Potomac River Basin. **{COMPLETE}**
- Prioritize communities with which to begin dialogue. A small number of communities should be identified as priorities, based on proximity, density, potential for protection, or other parameters. **{COMPLETE}**
- Investigate best management practices regarding use of deicing chemicals. Appropriate agencies will be contacted to determine what kinds of chemicals are used, whether there are alternatives that may reduce the risks to water supplies, and whether there are best management practices that can be applied to improve water quality. **{COMPLETE}**

#### Long-Term:

- Meet with priority jurisdictions to begin dialogue and exchange information. The purpose of the initial meetings will be to inform the jurisdictions about the Partnership goals, and educate the Partnership members on stormwater issues for those communities. **{NOT YET PURSUED}**
- Develop recommendations for urban stormwater management in coordination with state agency stormwater staff. **{IN PROGRESS}**
- Advocate for implementation of recommended stormwater practices. **{NOT YET PURSUED}**
- 

### Workgroup Measures of Success

- Provide presentation to Partnership on trends and priorities. **{IN PROGRESS}**
- Develop recommendations for stormwater management practices. **{NOT YET PURSUED}**

## Additional Projects

**2006:** Reviewed of stormwater management programs and regulations.

Held Urban Stormwater Dialogue session.

Scope of work to design and install one or more urban stormwater best management practices that will reduce sediment and/or phosphorus loading to the Potomac River upstream of the Metro area utilities.

Developed status/summary report on stormwater management requirements and practices in the Potomac River basin, based on a level of service or similar approach. Investigated projected urban trends in the Potomac River basin. Obtained currently available information on projected land use.

**2007:** Reviewed a draft presentation on roadway de-icers designed to initiate dialogue with state and local transportation agency staff on best practices for minimizing the impact of snow and ice operations.

Met with Maryland Department of Transportation (MDOT) and Virginia Department of Transportation (VDOT) to discuss snow and ice management operations.

**2008:** Prepared a list of resources on roadway and airport deicing activities for the Partnership's website. This includes information on practical measures to reduce winter weather-related deicing salt usage.

Obtained information on the use of deicing chemicals, including chemicals used, alternatives, best management practices, and issues associated with the use of various chemicals

**2009:** Reviewed major NPDES permits in the basin for issues of interest to water supply. Assessed the usefulness and feasibility of developing a position statement and common language that can be incorporated into NPDES permits in the basin. This is in progress. Draft language developed and an information session on NPDES permitting was held in 2009.

Prepare an opinion article on deicers that was published in the *Washington Post*.

Participated in the MWCOG-sponsored workshop on Green Highways.

**2010:** Drafted comments on proposed legislation requiring the Maryland State Highway Administration and each local jurisdiction that is responsible for highway maintenance in the state to establish and implement a best practices road salt management program.

Held a workshop on Clean Water Act water quality standards and Safe Drinking Water Act/source water issues.

Drafted comments on proposed EPA Airport Deicing Effluent Guidelines regulation.

**In Progress:** Continue dialogue with communities identified as possible locations for urban stormwater projects and other priority communities. Priority communities are identified based on proximity, density, potential for protection, or other parameters.

Pursue opportunities for education & training on snow- and ice-removal practices which improve protection of drinking water sources.

Invite states to present case studies of MS4 permits as potential "model permit".

Develop a working group in the Partnership to review major NPDES permits in the basin to determine if any water supply related issues are justified and develop comments.

Develop a small ad-hoc working group to meet with state NPDES representatives to discuss source water protection priorities. Meet with state agencies in the basin to discuss common issues and conditions that can be integrated into permits to benefit source water protection.

Look into the possibility of using secondary water quality standards that could lead to a reduction in road salt use, like a total dissolved solids limit.

Track regional programs and initiatives that may impact urban source water protection efforts in the Potomac basin.

## Ag Issues

**2008:** Coordinated with Pathogens Workgroup to hold Ag 101 workshop.

Coordinated with Pathogens Workgroup to tour dairy and beef cattle farms.

**2009:** Continued development of agricultural best management practice (BMP) implementation strategy.

Conducted literature search and contacted researchers to determine how much is known about effectiveness of farm BMPs and operational solutions for reducing Crypto, pharmaceuticals, other emerging contaminants.

Identified potential partners and scoped out potential pilot projects.

Reviewed 319 watershed plans to determine where best to start an educational outreach program to address *Cryptosporidium*.

Established alliance with Maryland Department of Agriculture Resource Conservation Operations.

Developed Ag Issues webpage.

Developed a *Cryptosporidium* message that targets the ag community.

Established alliance with NYC Watershed Agricultural Council

**2010:** Engaged Maryland State Technical Committee (STC) to solicit feedback on the *Cryptosporidium* message developed by the group in 2009.

Held a *Cryptosporidium* education session with Penn State's webinar program "Manure du Jour."

Engaged local and national *Cryptosporidium* experts and created an advisory committee.

## Reaching Out

**2008:** Participated in the development of informational material concerning EDCs, and road salts, among other things.

Worked with the Early Warning/Emergency Response workgroup in developing a strategy to meet with Colonial Pipeline Company to begin discussions of possible joint exercises on spill response.

**2009:** Construct DWSPP informational web pages on EDCs (with EC workgroup).

Worked with the Urban Issues workgroup to prepare an opinion article on the use of deicing chemicals for publication in the *Washington Post*.

Assisted in developing informational material concerning early warning and spill response, agricultural initiatives, EDCs, and road salts, among other topics for the Partnership's workgroups.

**2010:** Assisted the Ag Issues workgroup with finding appropriate photos for the "Manure du Jour" webinar session.

Served as a resource for reporters on the impacts of road salt and deicing chemicals on source waters during this year's large snow events.

Monitored MWCOG water quality blogging initiative.

Provided feedback to EPA Region 3 on blog posts for their blog "Healthy Waters for EPA's Mid-Atlantic Region."

**On-going:** Develop annual report.

Organize annual meeting.

Present to and meet with outside groups interested in learning about the Partnership.

Maintain website.



## Potomac River Basin Drinking Water Source Protection Partnership

### Administrative Revenue and Expenses Update July 1, 2009 through September 30, 2010

REVENUE FROM VOLUNTARY CONTRIBUTIONS	Budgeted	Received
<b>States</b>		
District of Columbia	7,696.76	7,696.76 <sup>†</sup>
Maryland	7,696.76	7,696.76
Pennsylvania	7,696.76	7,696.76
Virginia	7,696.76	0.00
West Virginia	<u>7,696.76</u>	<u>7,696.76<sup>†</sup></u>
<i>States subtotal</i>	38,483.80	30,787.04
<b>Utilities</b>		
Fairfax Water	12,827.94	12,827.94
Washington Aqueduct	12,827.94	12,827.94
WSSC	12,827.94	12,827.94
City of Frederick	375.00	0.00
City of Hagerstown	375.00	375.00
City of Rockville	375.00	375.00
Frederick County DUSWM	375.00	375.00
Loudoun Water	1,725.00	1,725.00
Town of Leesburg	375.00	375.00
Washington County	<u>375.00</u>	<u>375.00<sup>†</sup></u>
<i>Utility subtotal</i>	42,458.82	41,708.82
<b>Federal &amp; Regional Agencies</b>		
ICPRB contribution	<u>13,124.29</u>	<u>TBD</u>
<i>Federal &amp; Regional Agencies subtotal</i>	13,124.29	
<b>Total FY 2010</b>	<b>94,066.91</b>	<b>TBD</b>
<hr/>		
EXPENSES	Budgeted	Actual* (as of Aug. 31, 2010)
ICPRB staff (salary + fringe)	55,631.63	47,114.96
Equip. Maint. & Rental	0.00	0.00
Postage	62.50	0.00
Supplies & Office Exp.	1,000.00	1,428.00
Communications	500.00	643.15
Meeting Expenses & Travel	2,750.00	1,935.98
Publ. & Printing	187.50	0.00
ICPRB Indirect	33,935.29	24,223.95
<b>Total FY 2010</b>	<b>94,066.92</b>	<b>75,346.84</b>

<sup>†</sup> Contributions are in the process of being fulfilled.

\*Expense figures subject to accounting review during ICPRB's annual audit.