**DRAFT Meeting Summary**

**Source Water Collaborative**

Monday, October 5, 2015

11:00 AM-2:00 PM Eastern

**Key Action Items**

* *Innovation Challenge*:
  + (all members) Update Outreach Plan (SWC)
    - Identify how your organization will promote launch to its network
    - Identify how your organization will reach out to potential solvers
    - Identify which conferences and/or events through which your organization will promote the Innovation Challenge, send list to Christene Jennings, [christene.jennings@saltermitchell.com](mailto:christene.jennings@saltermitchell.com)
  + (Salter>Mitchell) Develop draft outreach materials for dissemination by member organizations
  + (Salter>Mitchell, EPA) Coordinate with Top Coder to provide Evaluation Plan with schedule and potential points of involvement for members
  + **Details on several action items—e.g., input on evaluation, outreach during Innovation Challenge launch, and tool implementation—will follow within the next few weeks.**
* *Additional Action Items*
  + (all members) Review the updated [SWC website](http://www.sourcewatercollaborative.org), email Christene Jennings with additional resources to include, and follow the SWC on [Twitter](http://twitter.com/SourceWaterCol).
  + (all members) Forward questions related to the Ohio Environmental Agency's HABs mitigation activities to Heather Raymond
  + Lynn Thorp/Clean Water Action to write up summary of Bromide example for display on SWC website and further promotion [action completed]

**Meeting Objectives**

* Update SWC members on Innovation Challenge to prepare for a fall 2015 launch
* Discuss plan for promoting SWC Innovation Challenge and secure member commitments
* Share member updates and activities
* Review SWC 2015 goals/roadmap, and track our progress along the “Call to Action”

**Meeting Materials**

Please note that all meeting materials are available on the Source Water Collaborative website at the [Learn About Source Water Collaborative](http://www.sourcewatercollaborative.org/learn-about-source-water-collaborative/) webpage. If you have further questions or requests, please email Christene Jennings at christene.jennings@saltermitchell.com.

# Source Water Collaborative Brown Bag/Member Sharing “Round Robin”

**Member Introductions, Sharing, Commentary, and Updates**

|  |  |
| --- | --- |
| Association of Metropolitan Water Agencies | Scott Biernat noted that AMWA has a growing interest in the link between agriculture and nutrients on the extent, intensity, and occurrence of Harmful Algal Blooms (HABs), and that AMWA will continue to explore options, including regulatory tools and advocating for legislation on nutrient runoff. Biernat mentioned that AMWA is focused on the [Des Moines Water Works lawsuit on the Raccoon River](http://www.amwa.net/event/2015-executive-management-conference). |
| National Ground Water Association | Cliff Treyens emphasized NGWA’s longstanding objective to improve professionalism in the groundwater sector, working regularly with well system professionals, engineers, and others to provide courses, education materials, and conferences on groundwater management, technologies, science, and more. Treyens noted that NGWA continues to engage municipal systems and private well owners and to work through U.S. EPA grants to target (well testing, improvements) private well owners. |
| Association of State Drinking Water Administrators | Deirdre Mason noted that ASDWA is in discussions with states on the issue of HABs and that they have encouraged state source water protection offices to coordinate with partners in agriculture. Mason mentioned that ASDWA continues to promote [Clean Water Act-Safe Drinking Water Act integration for protection of DW sources](http://www.gwpc.org/cwa-sdwa-coordination-toolkit) to key CWA and SDWA state authorities. ASDWA annual conference will be October 20th-23rd.  Jim Taft reemphasized ASDWA’s primary concern is the issue of HABs and that ASFWA is preparing to facilitate implementation of HR 212. Taft highlighted extreme weather-related events in the West and recently in South Carolina, and noted that source water protection is progressively more tightly linked with water security and resilience |
| National Rural Water Association | Bill O’Connell noted that NRWA is operating under a USDA-funded source water protection program and is working with mid-Western state Conservation Districts to promote cover crops in impaired watersheds. Partners are monitoring improvements to water quality. O’Connell noted that NRWA is advocating for [USDA-NRCS Environmental Quality Incentives Program (EQIP) grants](http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/) to give extra project prioritization points to projects in wellhead protection areas. |
| North American Lake Management Society | Bob Morgan alerted members to upcoming [NALMS Symposium](http://www.nalms.org/home/conferences-and-events/nalms-upcoming-symposium/nalms-symposium.cmsx) on Nov. 17th-20th. Morgan noted that NALMS recently developed policy for managing lakes from a systems perspective (water body treatments and watershed protection/restoration), and that NALMS will finalize a policy on SWP soon. Morgan mentioned that NALMS continues to hold seat on AWWA SWP committee and is collaborating with [U.S. Endowment for Forestry & Communities](http://www.usendowment.org/) and USFS. Will present research results at the [AWWA Water Sustainability Conference](http://www.awwa.org/conferences-education/conferences/sustainable-water-management.aspx) |
| American Planning Association | Anna Read alerted members to a new APA report on key points of leverage for planners in source water protection. Noted that APA is developing planning advisory reports and that the Green Infrastructure reports are out for the Greater Baltimore Wilderness. Read alerted attendants to [APA Green Infrastructure symposium on October 28th](https://www.planning.org/aicp/symposium/) and water session in [APA National Planning Conference](https://conference.planning.org/conference/) on April 2-5, 2016. |
| National Association of Conservation Districts | Katie Stump noted that NACD is utilizing [NRCS Conservation Innovation Grants](http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/cig/) to create outreach materials about water quality trading. Mentioned that NACD is promoting cover cropping. |
| American Water Works Association | Steve Via noted that Cyanotoxins have been focus-- treatment options, preparations, monitoring, etc. Via emphasized importance of SWP in preventing Cyanotoxins. |
| Clean Water Action | Lynn Thorp described how Clean Water Action worked with AWWA to get recognition in the final Clean Water Act rule, [“Effluent Limitations Guidelines and Standards (ELGs) for the Steam Electric Power Generating Point Source Category”](http://www2.epa.gov/sites/production/files/2015-09/documents/steamelg_2040-af14_finalrule_preamble_2015-09-30_prepub.pdf) (Sep. 30, 2015) that bromide discharges from coal plants are a problem for downstream drinking water treatment plants. Clean Water Action believes that notification of downstream Public Water Systems and other pathways outlined in the final document are a great example of Clean Water Act/SDWA integration and that this would not have happened without working together to bring high level attention to the problem. AMWA also participated in some of the meetings on this subject. |
| EPA OGWDW | Karen Wirth noted that EPA is collaborating with colleagues through [Urban Waters Small Grants Program](http://www2.epa.gov/urbanwaters/urban-waters-small-grants) and [Healthy Watersheds Consortium grants](http://water.epa.gov/polwaste/nps/watershed/consortiumgrant.cfm) to include SWP language into RFPs and project scoring. Also exploring how to work with states to better utilize CW and DW SRF funds.  Rachel Carlson alerted members to upcoming release of public version of the Drinking Water Mapping Application for Protecting Source Waters (DWMAPS), an online mapping tool to support source water assessment and protection. Carlson noted that EPA will be reaching out to focus groups of states, utilities, and federal staff in Oct.-early Nov. for feedback. Carlson recapped Sep. 28-Oct. 2 HABs workshop in South Dakota and announced that OGWDW will fund regional 2-3 HABs workshops in 2016 (please contact Regional EPA HABs or SWP coordinator to propose a workshop). EPA is also working on Strategic Plan for HABs as required by H.R. 212, to be submitted to Congress in November. Carlson reported [Coca Cola Replenish Program](http://www.coca-colacompany.com/stories/collaborating-to-replenish-the-water-we-use/) collaboration and successful funding of SWP projects through the [Schuylkill River Restoration Fund](http://www.schuylkillriver.org/restoration_fund.aspx) and [National Fish & Wildlife Foundation Five Star/Urban Waters grants program](http://www.nfwf.org/fivestar/Pages/home.aspx). |
| Ground Water Protection Council | Joe Lee noted prominent place of Cyanotoxins and SWP at recent GWPC Forum. Alerted members [to Induced Seismicity report](http://www.gwpc.org/resources/publications) available online and the [Underground Injection Control conference on February 23-26, 2016](http://www.gwpc.org/events/2016-uic-conference) |
| River Network | Katherine Baer noted that River Network continues to focus efforts on direct engagement of watershed groups, specifically in promoting CWA-SDWA integration. Alerted members to [National River Rally](http://www.rivernetwork.org/programs/river-rally) on May 20-23, 2016, ongoing collaboration with EPA on the [Urban Waters Learning Network](http://www.urbanwaterslearningnetwork.org/), and [Clean Water Act Users Manual](http://content.yudu.com/Library/A1xrkp/CleanWaterAct/resources/index.htm?referrerUrl=http%3A%2F%2Fwww.rivernetwork.org%2Fresource-library%2Fonline-publications). |
| USDA-NRCS | Martin Lowenfish reported on [NRCS National Water Quality Initiative](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/home/?cid=stelprdb1047761) efforts with small watersheds, [Mississippi River Basin Healthy Watersheds Initiative](http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/nm/home/?cid=stelprdb1048200) financial and technical assistance, [Great Lakes Restoration Initiative](http://greatlakesrestoration.us/) expanded investment in water quality. These efforts will increase resources towards HABs and non-point source pollutants. |
| Association of Clean Water Administrators | Melissa McCoy highlighted importance of developing numeric water quality criteria for Nitrogen and Phosphorous to states and need for EPA to develop nutrient reduction tracking to monitor progress, as this will inform CWA permit limits on nutrients. Noted that ACWA is supporting water quality trading by developing trading toolkit, to include templates, rule guidance, permitting language, etc. Monitoring of all waters is integral to demonstrate effectiveness of BMPs and to develop effective water quality trading. Mentioned [Nutrient Sensor Challenge](http://www.act-us.info/nutrients-challenge/) as a vehicle for expanding access to less expensive nutrient sensors. |
| USGS | Sandy Eberts noted USGS efforts on HABs, specifically:   * USGS has HAB related activities in 20 states * USGS HAB research is interdisciplinary and is conducted collaboratively with local, state, federal, tribal & university entities. * USGS HAB work includes (i) method & protocol development, (ii) occurrence, fate & transport studies, (iii) ecology & toxicology studies, and (iv) direct management applications, such as modeling to predict HAB occurrence. Occurrence work includes recent one-time sampling for microcystis in wadeable streams in 5 states in the southeast (100 sites) and 2 states in the Pacific Northwest (78 sites). These data are not yet available. USGS SPARROW models also provide insight into the source and strength of nutrient input in watersheds. * USGS is developing a unified vision and strategic plan for its HAB and hypoxia research.   The USGS HAB coordinator is Jennifer Graham, USGS Kansas Water Science Center, jlgraham@usgs.gov, 785-832-3500. |

**Ohio EPA: Reducing Risk from Harmful Algal Blooms (HABs)**

Heather Raymond of Ohio Environmental Protection Agency (EPA) presented on Ohio EPA’s strategies for using the Clean Water Act (CWA) to reduce risk at PWS from nutrients and Harmful Algal Blooms. Raymond noted that Ohio EPA is leveraging the CWA to assess nutrient impairments in public water supplies. Specifically,

* Recently, several PWS in Ohio have experienced spikes in nutrient levels. However, Ohio EPA did not find impairments for nutrients in waters upstream of PWS using established assessment methodologies. Nutrient criteria are often aquatic life criteria and not human health criteria, and are often narrative, not numeric.
* Ohio EPA is developing assessment methodologies for nutrients and cyanotoxins based on updated assessment indicators.
  + Have found that several large rivers are impaired for nitrates
* Ohio EPA also developed a water quality criteria for cyanotoxins based on the number of cyanotoxin events within a 30-day period.
* Ultimately, the goal is for PWSs to treat water conventionally without the economic burden of treating for upstream contamination.
* Lake Erie has been listed as impaired for cyanotoxins. So far, the approach to the impairment has been incident-response based. Has led to enhanced lake monitoring—next step is to establish additional sampling rules/protocols.

# Source Water Collaborative Full Member Meeting

**Welcoming Remarks**

Peter Grevatt, Office Director of the EPA Office of Ground Water and Drinking Water (OGWDW), welcomed the Source Water Collaborative members. Grevatt noted several examples of using the CWA to protect drinking water, which reflects the power of collaboration and cooperation in achieving water quality protections.

Grevatt pointed out several events in 2015 that exemplify current and future challenges to SWP and drinking water protection that emphasize the importance of collaborative work:

* Bank-to-bank HABs bloom on the Ohio River (credit to AWWA and States that there were no intake shutdowns);
* Gold King Mine, which is one of thousands of additional abandoned mines

In light of challenges to source water protection, Grevatt showcased several significant and exciting developments, new tools, and emerging partnership opportunities that promise to bolster source water protection:

* DWMAPS (Drinking Water Mapping Application for Protecting Source Waters)
  + It will give communities an opportunity to look at source watersheds to assess threats
* HABs
  + H.R. 212, Congress is looking closely at HABs
  + States are also committing resources and attention, particularly the Great Lakes states
* Unconventional new partners
  + EPA (Peter Grevatt) attended Keurig-Green Mountain conference and found it enlightening to listen to corporate participants who are increasingly committing resources to water risk reduction and public campaigns
  + Noted that Keurig-Green Mountain has committed $5 mil to protect Lake Champlain where headquartered
  + Encouraged members to consider where there are other leverage points

Grevatt addressed [Call to Action](http://sourcewatercollaborative.org/wp-content/themes/sm-swc/img/SWC-calltoaction-v11.pdf): mentioned that this year, the "year of implementation," the Source Water Collaborative has made significant strides towards implementing Key Actions, including CWA-SDWA integration and restructuring the SWC website after the Call to Action. Grevatt highlighted the upcoming Innovation Challenge as a particularly exciting opportunity to engage new stakeholders in SWP.

Grevatt challenged member organizations to take stock of commitment and progress towards implementation of Call to Action and to take the opportunity provided through recent events (e.g. Ohio River HABs bloom) to push for progress. Grevatt highlighted several key strategic opportunities to promote SWP, such as measuring results from SWP actions and translating the economic benefits of SWP.

**Innovation Challenge Overview & Discussion**

Christene Jennings of Salter>Mitchell introduced Jim Taft (Association of State Drinking Water Administrators) and Melissa McCoy (Association of Clean Water Administrators) to present the Innovation Challenge to SWC members. **Jennings referred members to the Innovation Challenge FAQ document for more information.**

Jim Taft (ASDWA) reemphasized Peter Grevatt's comments that the SWC and its member organizations should focus on implementing the Call to Action over the next year and that the Innovation Challenge addresses a key component of the Call Action: CWA-SDWA integration. Innovation Challenges are prize competitions intended to reward winning solutions to a common challenge—e.g., a common problem faced by source water protection practitioners.

Taft described why the SWC has selected an Innovation Challenge model:

1. Want to engage new parties/stakeholder groups
   1. Provide them with an opportunity to learn source water protection by doing
2. Tap into underutilized disciplines to bring in diverse perspectives and talents

Taft described the problem/issue that the SWC hopes to tackle with the Innovation Challenge:

* Contaminants of concern are plentiful: ~150 numeric water quality criteria presented in EPA’s National Recommended Water Quality Criteria, but thousands of contaminants do not have water quality criteria (WQC) under the CWA to ensure greater protection of drinking water.
* States have narrative standards and need information for translating those to numeric
* The Innovation Challenge will produce tool that helps states address these contaminants and issues: a clearinghouse for the exchange of information on water quality criteria
* Tool will:
  + Include information on criteria derivation, supporting technical documents, etc.
  + Will answer questions such as: What are critical drinking water contaminants? What criteria or technical approaches are others using to address these contaminants? What are other states’ draft and final criteria?
  + The Innovation Challenge will focus on design: crafting the interface and blueprint for a tool that compiles this vast amount of information in an easy-to-use format.

Melissa McCoy (ACWA) added that the final tool will be tremendously valuable to states as they develop water quality criteria (WQC). McCoy mentioned that it is a difficult and resources-intensive for states to develop WQC, and this tool will facilitate speedier and cheaper development.

Traci Iott of Connecticut Department of Energy and Environmental Protection added that the current system (independent development of state WQC) is inefficient and that the tool will allow states to learn from each other. Tracy noted that the tool will also invite the public to further engage in the process.

**Innovation Challenge User Requirements**

Rachel Carlson, EPA OGWDW, outlined the process and staging of the challenge. **Carlson presented the User Requirements document** for the Innovation Challenge and discussed key points and deliverables from the User Requirements and challenge:

*Challenge Scope (what will the Challenge deliver?)*

* The Innovation Challenge is a graphical user interface design and coding challenge and will emphasize the need for an easy-to-use tool
* The Innovation Challenge will produce
  + “Blueprint”/wireframe (i.e., roadmap for development)
  + Graphical user interface designed to support user requirements.
* Upon delivery of these products by the Innovation Challenge, the SWC will identify the appropriate contractor to build the tool.
* Steering committee has been working to develop **user requirements** for the tool/Innovation Challenge parameters

*Challenge Process (how will the Challenge be run?)*

Carlson described how the Steering Committee decided that the SWC could benefit from technical assistance in launching, staging, and evaluating a Challenge that rests on coding and programming skills. SWC has enlisted help from Top Coder, a prize competition host that targets the data management and design community. SWC may engage Top Coder to

1. conduct outreach its network of 800,000 “solvers” for the Innovation Challenge,
2. host the Challenge, along with the SWC website and [www.challenge.gov](http://www.challenge.gov), and
3. help the SWC evaluate solutions with an eye toward technical feasibility.

Carlson introduced Any LaMorra of Top Coder to describe the Top Coder process.

Andy LaMorra described aspects of prize competitions held through Top Coder's online platform. LaMorra noted that crowdsourcing is a way to bring in a wide audience to solve a problem (only pay for winning solution), and that challenges held through Top Coder's platform offer the benefits of crowdsourcing through a competition model.

LaMorra highlighted the stages/steps in a typical innovation challenge and described the evaluation process. He noted that there are many points of input that will require input from the SWC and that Top Coder will also pre-screen all submissions for technical feasibility.

Christene Jennings of Salter>Mitchell restated Andy LaMorra's comments on the process for staging an Innovation Challenge through Top Coder and noted that the evaluation process will offer plenty opportunity for input from SWC members.

Andy LaMorra described how **Top Coder and the Steering Committee will develop a"game plan" that can be adjusted for SWC members. Top Coder will provide a project manager, weekly updates, and an online tool called ‘Review’ (i.e. a project dashboard) which will provide information on the project and opportunities for involvement.**

*For more information on the specifics of the Innovation Challenge, the User Requirements, and Top Coder, please refer to meeting materials on the Source Water Collaborative website.*

**Outreach Plan Overview and Discussion**

Rachel Carlson, EPA OGWDW, noted that the Innovation Challenge launch will be presented on the SWC website and the SWC would like to receive as many applicants/submissions as possible.

Jim Taft, ASDWA, asked how Collaborative can members can get involved in the Innovation Challenge.

Rachel Carlson, EPA OGWDW, responded that Collaborative members can

* Reach out to potential "solvers"
* Help ensure the tool is populated (i.e. with information/data) upon completion, and
* Assist in evaluation and tool development.

Carlson also noted that the SWC may hold a follow-up innovation challenge with outreach objectives. **Editorial note: please refer to FAQs and updated User Requirements for a list of ways members can get involved.**

Christene Jennings, Salter-Mitchell presented the Innovation Challenge Outreach Plan (available on the SWC website) to the members. Jennings noted that the Innovation Challenge offers an opportunity to:

* Attract a wide range of participants to the Innovation Challenge and in achieving source water protection
* Promote resources and objectives of the Source Water Collaborative

Jennings asked Collaborative members if they would suggest organizations or individuals in their networks that would be interested in submitting solutions/participating in the challenge (solvers) and/or contribute to launching and populating the finished tool.

Jennings: Who might contribute solutions to the Innovation Challenge?

* + Jim Taft, ASDWA: States: data managers and contract firms
  + Andy LaMorra, Top Coder: Cloud technologists--major challenge you’ll need to overcome is with maintenance. The cloud offers best solution.
  + Cliff Treyens, NGWA: Consulting firms, university students, academics
    - Sees value in getting feedback about the application
  + Joe Lee, GWPC: Oil and Gas industry—e.g., those involved in RBDMS tool or similar data projects
  + Environmental Finance Center MD: University campuses
  + Chi Ho Sham, CADMUS: Foundations
  + Lynn Thorp, CWA: Networks of developers in activist NGO community (e.g. The Nature Conservancy)
  + Jim Taft, ASDWA: Reach out to "bread and butter" foundations (e.g. Endowment for Forestry and Communities, National Academy of Sciences) and networks

Christene Jennings asked Collaborative members to utilize the User Requirements document, narratives, and other approaches to reach out to their networks and communities. Encouraged members to promote the tool under context of source water protection. **The Steering Committee will provide template outreach materials for members to personalize and pass on to networks.**

*For more information on the specific of the Outreach Plan, please refer to meeting materials on the Source Water Collaborative website or email Christene Jennings at* [christene.jennings@saltermitchell.com](mailto:christene.jennings@saltermitchell.com)

**Attendance**

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| Source Water Collaborative Meeting Attendees | |
| **SWC Member Organization** | **Participant** |
| Association of Clean Water Administrators (ACWA) | Melissa McCoy |
| American Planning Association (APA) | Anna Read |
| Association of Metropolitan Water Agencies (AMWA) | Scott Biernat |
| Association of State Drinking Water Administrators (ASDWA) | Jim Taft |
| Deirdre Mason |
| American Water Works Association (AWWA) | Steve Via |
| Clean Water Action (CWA) | Lynn Thorp |
| Environmental Finance Center of MD | Brandy Espinola |
| Groundwater Foundation (GWF) | Jennifer Wemhoff |
| Ground Water Protection Council (GWPC) | Joseph Lee |
| National Association of Conservation Districts (NACD) | Chris Heck |
| Katie Stump |
| North American Lake Management Society (NALMS) | Bob Morgan |
| National Ground Water Association (NGWA) | Cliff Treyens |
| National Environmental Services Center (NESC) | Jerry Iwan |
| National Rural Water Association (NRWA) | Bill O’Connell |
| River Network | Katherine Baer |
| USDA-NRCS | Jackie Slay-Davis |
| Martin Lowenfish |
| United States Geological Survey (USGS) | Sandy Eberts |
| EPA OW | Elana Goldstein |
| EPA Region 1 | Kira Jacobs |
| EPA Region 3 | Rick Rogers |
| EPA Region 8 | Judy Bloom |
| EPA OGWDW | Peter Grevatt |
| Ronald Bergman |
| Karen Wirth |
| Rachel Carlson |
| Howard Rubin |
| Sherri Comerford |
| Bo Williams (ORISE) |
| EPA OWOW | Tom Wall |
| EPA OST | Jeff Lape |
| **Invited Guests** | **Participant** |
| Appirio/TopCoder | Andy LaMorra |
| CADMUS | Chi Ho Sham |
| Salter>Mitchell | Christene Jennings |
| Ohio EPA | Heather Raymond |
| Connecticut Department of Energy and Environmental Protection (and ACWA state member) | Traci Iott |