



National Water Quality Monitoring Council

Working together for clean water



Meeting Minutes – National Water Quality Monitoring Council (Council) Idaho Water Science Center, Boise, Idaho February 10-12, 2015

(Agenda and list of participants on pages 5-6, presentations posted on Council website at: <http://acwi.gov/monitoring/>)

Actions, Decisions and other Information

1. Council Updates

- Council Website was approved by the Council as it currently stands.

2. Water Information Strategies Work Group—Mary Skopec (Iowa DNR) presented on activities and deliverables for the WIS group. Doug McLaughlin presented a spreadsheet tool (The Statistical Decision Maker) that uses sample size and sample variability to calculate statistical confidence that a threshold is exceeded (for normally distributed data). The WIS Work Group plans to do another Extreme Events Webinar in the upcoming months (they will have a date and time scheduled by March 15th).

Action: The group will also release the “What Your Manager Needs to Know” Fact Sheet Series soon; the layout will be modified slightly from its current version. Final comments on the Fact Sheet Series are due back to the WIS Work Group by March 7th.

3. Sensors Work Group—Dan Sullivan (USGS) and Dwane Young (EPA) gave an overview of a white paper the group is working on along with other federal partners (COE, ARS, NOAA) and explained the importance of this publication as a variety of sensors enter the market. This guide will be published in a journal (targeting JAWRA) and will be accessible to the public.

- A related effort, the Sensors Data Strategy group, is working to produce a document that describes a recommended approach for how to enable a national data sharing network for water sensor data (both quantity and quality)

- Chuck Dvorsky (Texas CEQ) gave an overview of an effort to extend the Sensors Deployment Guide (see www.watersensors.org). The extension will include photos and information on enclosures and other equipment and considerations used in both successful and unsuccessful sensor field deployments. The concept is an “idea book” with photos and text to guide anyone wishing to field deploy sensors an array of options to house and deploy equipment in the field. (see [MBSWg](#) and [nwqmc_feb2015_sensors](#)).

Action: Sensors white paper will be published in a publically-accessible journal this fiscal year

Action: Sensors Deployment Guide will be available on the watersensors website later this calendar year.

4. National Monitoring Network—Hugh Sullivan (EPA), Dennis Apeti (NOAA), and Dan Sullivan (USGS) presented on the progress of the National Monitoring Network (see [nmn_nwqmc](#)). Dan’s presentation focused on USGS progress with respect to the proposed NMN flow and flux monitoring for inland tributaries to coastal waters; Hugh’s presentation focused on EPA National Coastal Condition assessment contributions NMN goals for coastal water-quality assessment, and Dennis’ presentation identified NOAA programs that contribute to multiple components of the NMN framework, including protected estuaries, contaminants at targeted trend sites, and open water marine monitoring (see [noaa_nmn_021215_da](#)). Council discussion recommended highlighting the data portal as a major contribution to the goals of the NMN and developing a map to represent these programs and the contributions of states and other organizations that add components of the NMN.

- The current Ocean Action Plan index period is ending. A discussion as to what the Ocean Action Committee (OAC) and/or the Council on Environmental Quality (CEQ) wants from the Council was held during a breakout session on Tuesday afternoon (2/10/15) attended by Susan Holdsworth, Gary Rowe, Greg Piniak, Dan Sullivan, Steve Wolfe, Hugh Sullivan, and Dennis Apeti (Hugh and Dennis by phone). The consensus of those in the breakout session was that a report from the Council summarizing progress to date should be produced and delivered to the OAC and CEQ after review and approval by ACWI in 2017.

Action: Gary Rowe will consult with Donna Myers (USGS Office of Water Quality) to identify scope of NMN report to OAC, CEO, and ACWI, resources required, and timeline for completion and will get back to Susan and others involved in the breakout discussion for confirmation before presenting plan to full Council.

5. **Methods Board/NEMI**—Dan Sullivan (USGS) presented on updates for the Methods Board and NEMI.
 - Dan would like to see a topic-specific networking block for sensors at the 2016 Conference
 - More methods are currently being added to NEMI; the Water Quality Portal is now connected to NEMI. Dan Sullivan gave a presentation (see [tuesday_mdcb_workgroup_update](#)).

6. **National Network of Reference Watersheds (NNRW)** – Mike McHale, USGS, gave an update of the NNRW and presented the current version of the website.
 - The NNRW website has been completed and is ready to be sent to the user group in the upcoming weeks. Several Council members expressed an interest in participating in the user group review of the draft NNRW website.
 - The idea behind the NNRW resource is to allow people to make their own decisions when selecting reference watersheds. In addition, the site includes core reference watersheds that meet a specific definition of minimally disturbed based on several human disturbance criteria.
 - More watersheds from other agencies will be added in the upcoming year (a gaging station is not required for new watersheds).
 - Action:** A sign up list for those interested in participating in the NNRW website review was circulated among the attendees and contact information of those who signed up was forwarded to Mike after the meeting.
 - Action:** NNRW website will be launched (most likely by April) and database will be refined to operate more efficiently in the upcoming year

7. **Water Quality Portal**—Jim Kreft (USGS) reviewed the progress of the Water Quality Portal up to date, as well as use statistics and resources available for additional work on the Portal. The Vision of the Portal as it moves into the future was discussed by the entire Council in two breakout groups. The Council agreed that data accessibility (discoverability) and data integrity are essential as the Portal moves forward – one place for water quality data in a common format with documented quality. Near term goals include (1) getting data from all 50 states into the Portal, (2) working with NOAA to make NOAA discrete monitoring data available through the Portal, (3) serving biological assemblage data through the Portal, (4) increasing the amount of groundwater-quality data in the Portal, and (5) developing a long-term vision for what the Portal will look like 10 years from now. Communication products for the Portal will focus on the power of the Portal (fact sheets, statistics, and example projects) and the efficiency that it provides in discovering available water-quality data (see presentation [portal_vision_021115](#)).
 - Action:** Produce a written version of the Portal Vision (with Council's included input), define the steps necessary to achieve the vision, and develop a strategic plan that describes the scope, timing, and resources required to achieve the Portal vision.
 - Action:** Develop traveling PowerPoint presentation on Portal basics that Council members can use for presentations to different groups to publicize the Portal (Mike Woodside can assist with this).
 - Action:** Continue work on adding additional data (water quality, biological, metadata) to the Portal from new and existing sources at the local, State, and Federal level.

8. **Conference Planning Committee**—Alice Mayo and Callie Oblinger
 - Alice gave an overview of Conference Workgroups and called for participation (See Presentation "[The Conference Planning Committee 2_10_15](#)" for details.) Many attendees signed up for conference committees.
 - The CPC drafted a set of conference themes and made many decisions about the 2016 Conference, including keeping the networking session but possibly organizing by topic, having two poster viewing sessions, holding field trips on Monday, Friday, and some on Wednesday, and investigating use of interactive smartphone apps for conference goers.
 - Jeff Schloss (NALMS) updated the Council on the logistics of the Tampa Convention Center and logistics involved with planning the 2016 Conference in this facility. The dates of the 2016 Conference will be May 2-6, 2016 (see [nwqmc16_logistics](#)).
 - Action:** The Program Committee will work on drafting a "Save the Date" announcement. Feedback on conference themes is due to Monty by March 3. The final draft of the Save the Date will be sent out the following week.
 - Action:** The Call for Abstracts will be sent on April 16th; feedback on this document will be requested before then. Abstracts will be due on September 18th.

9. **Collaboration and Outreach Work Group** – Danielle Donkersloot (NJ DEP) and Candice Hopkins (USGS) presented to the group about the goals and vision of the C&O Work Group. Barb Horn (CO Parks and Wildlife) gave input on the history of the Work Group and helped facilitate conversation about products.
- Every Council member serves as a liaison for the Council. They should be promoting our products at local and regional meetings; the C&O Work Group has resources to help with this effort.
 - Barb Horn will work on helping to contact State and regional Councils to update contact information with these groups
 - Webinars are posted on YouTube and webinars are scheduled to occur frequently. C&O needs Council members to help spread the word about this resource
 - Dan Sullivan (USGS) presented the most recent version of the website. Dan will launch the new homepage within the next few weeks.
 - Action:** C&O plans to publish two “Calling Cards” this year (a sheet with more information and a smaller business-card style handout). A draft of the calling cards will be available to the Council by November 1st.
 - Action:** Spring Newsletter deadline is March 1, 2015. Please encourage submission of articles by this date.
 - Action:** Candice Hopkins will work with USGS Social Media to launch a LinkedIn Group to help share Council information among water quality professionals. This account should be set up by April 1st.
 - Action:** Work Group chairs need to work with Dan and Kim Martz on content for secondary pages for the website.
 - Action:** Work Group will consider updating EPA State Manager’s Guide for working with Volunteer Monitoring Groups
10. **Suggestions:**
- Doug McLaughlin suggested making a resolution to ACWI that the Water Quality Portal is an important resource, and that it should be supported in its vision moving forward.
 - Mary Skopec suggested that the Council should have a resolution for a data standard for sensors
11. **Presentations**
- Lori Sprague (USGS) gave a presentation on data considerations in trend analysis using multi-agency data. Issues covered include detection limit changes over time, correlation of water-quality gages with surface-water gages, as well as field and lab method changes. Lori emphasized the importance of consistency between naming and analytical conventions (see presentation [data_considerations_nwqmc_meeting-0215](#)).
 - Bob Hirsch (USGS) gave an overview of dataRetrieval and EGRET (two USGS R packages). Bob’s presentation included the motivations behind creating these packages, as well as an overview of WRTDS and EGRET. Some lines of R code are also available in Bob’s presentation (see presentation [dataRetrieval-EGRET_2015-02-1-1rev](#)).
 - Danielle Donkersloot (NJ DEP) discussed the differences between Citizen Science and Volunteer Monitoring. Danielle gave examples of both of these types of monitoring and highlighted why both are so appealing, including the point that citizen scientists and volunteer monitors produce a data of known quality that may be used for decision making (see presentation [feb15donkersloot](#)).
 - Jon Marshack (CA Water Quality Monitoring Council) gave a presentation on turning data into information which introduced the Council to ways that the California Water Quality Monitoring Council has compiled data and turned it into helpful resources for the public. Jon discussed the set-up, upkeep, and use of the CA Water Quality Portal, as well as its wide use by the public (see [ca_council_workgroups_portals](#)).
 - Alex Etheridge (USGS) presented on Continuous Water-Quality Monitoring implementation and application. Alex highlighted the use of surrogates, the importance of having real-time data, important project considerations, and data considerations (see [overview_etheridge](#)).
 - Britta Bierwagen (EPA) presented on Regional Monitoring Networks that detect climate change in streams. This effort integrated state monitoring with climate monitoring, as included categorization of stream types, determination of consistent methods, and a workshop on sensor deployment. There will soon be a report released on this effort (see [nwqmc_rmn-overview_bierwagen](#)).

MEETING AGENDA

Tuesday, February 10, 2015

7:30 a.m. – Meet & Greet

8:00 a.m. – Welcome and Introductions (Gary Rowe and Susan Holdsworth)

- Housekeeping and logistics
- Introductions
- Membership updates

8:20 a.m.—11:45 am— **Updates from Workgroups**

- Collaboration and Outreach (Danielle Donkersloot and Candice Hopkins)
- Methods Board/NEMI/Sensors Workgroup (Dan Sullivan)
- Conference Planning Committee (Alice Mayo and Callie Oblinger)
- National Network of Reference Watersheds (Mike McHale)
- Water Information Strategies Workgroup (Mary Skopec and Dough McLaughlin)

LUNCH

1:00 pm—3:00 pm—**Work Group Breakout Sessions (led by work group chairs)**

- Collaboration and Outreach (Candice Hopkins and Danielle Donkersloot) and Conference Planning Committee (Alice Mayo and Callie Oblinger)
- Water Information Strategies (Mary Skopec)
- National Monitoring Network (Dan Sullivan)
- National Network of Reference Watersheds (Mike McHale)

3:15 pm – 5:15 p.m. – **Work Group Breakout Sessions (led by work group chairs, continued)**

- Conference Planning Committee (Alice Mayo and Callie Oblinger)
- Methods Board and Sensors Workgroup (Dan Sullivan)

5:00 p.m. – Recap for the Day and Identify Action Items (Gary Rowe and Susan Holdsworth)

Wednesday, February 11, 2015

8:00 a.m.—8:30 am – Conference Planning Update (Jeff Schloss)

8:30 a.m. – 9:15 am – Training: Data Considerations for trend analysis (Lori Sprague, USGS)

9:15 am – 10:15 am—Training: Overview of new open-source software: dataRetrieval and EGRET (Bob Hirsch, USGS)

10:30 am—11:30 am-- Citizen Scientists versus Volunteer Monitors—What's the Difference (Danielle Donkersloot)

11:30 am – 12:00 pm: Website Update and Discussion (Dan Sullivan and Candice Hopkins)

LUNCH

1:00 p.m. – 2:00 p.m. – Turning Water-Quality Data into Information Stakeholders Can Use (Jon Marshack)

2:00 p.m. – 2:45 p.m. –Developing a Long-Term Vision for the Water-Quality Portal (Jim Kreft)

3:00 p.m. – 5:00 p.m. – Breakout Sessions on the Future of the Water-Quality Portal (Jim Kreft and Charles Kovatch)

5:00 p.m. – 5:30 p.m.—Group discussion on the future of the Water-Quality Portal

5:30 p.m. – Adjourn for the day

Thursday, February 12, 2015

8:00 a.m. – 9:15 a.m. – Training: Continuous QW Monitoring (Alex Etheridge, USGS)

9:15 a.m. – 9:45 a.m. – Sensors Work Group Deployment Guide (Chuck Dvorksy and Dan Sullivan)

10:00 a.m. – 10:45 a.m. – Progress on Developing Data Standards for Continuous Water-Quality (Dwane Young, Dan Sullivan)

10:45 a.m. – 12:00 p.m. – Implementation Status of the National Monitoring Network and Next Steps (Hugh Sullivan, Dan Sullivan, and Dennis Apeti)

LUNCH

1:00 p.m. – 1:45 p.m. -- Tracking Climate Change by Monitoring Streams – Proposed EPA-State Partnership (Britta Bierwagen, EPA)

1:45 p.m. – 2:30 p.m. – Conference Planning reconnect (Monty Porter, Aaron Broisenko, Jeff Schloss)

2:30 p.m. – 3:15 p.m. – Training (continued): Continuous QW Monitoring (Alex Etheridge, USGS)

3:30 p.m. – 5:00 p.m. Finalize work group plans, update entire Council on plans and accomplishments, and review meeting action items and timelines

5:00 p.m. National Water Quality Monitoring Council Meeting Adjourn

Attendees at Idaho Water Science Center:

Aaron Borisenko	borisenko.aaron@deq.state.or.us
Alan Ellsworth	alan_ellsworth@nps.gov
Alexandra Etheridge	aetherid@usgs.gov
Alice Mayo	mayio.alice@epa.gov
Barb Horn	barb.horn@state.co.us
Callie Oblinger	oblinger@usgs.gov
Candice Hopkins	chopkins@usgs.gov
Chuck Dvorsky	cdvorsky@tceq.state.tx.us
Dan Sullivan	djsulliv@usgs.gov
Danielle Donkersloot	danielle.donkersloot@dep.state.nj.us
David Chestnut	chestnde@dhec.sc.gov
Doug McLaughlin	douglas.mclaughlin@wmich.edu
Eben Hobbins	ehobbins@orsanco.org
Erik Host-Steen	ehostste@hach.com
Gary Rowe	glrowe@usgs.gov
Glenn Skuta	glenn.skuta@state.mn.us
Greg Piniak	greg.piniak@noaa.gov
Jeff Schloss	jeff.schloss@unh.edu
Jim Dorsch	JDorsch@mwr.dst.co.us
Jim Kreft	jkreft@usgs.gov
Jon Marshack	jon.marshack@waterboards.ca.gov
Leslie McGeorge	leslie.mcgeorge@dep.state.nj.us
Lori Sprague	lsprague@usgs.gov
Martha Clark Mettler	mclark@idem.in.gov
Mary Skopec	mary.skopec@dnr.iowa.gov
Michele Wheeler	michele.wheeler@wisconsin.gov
Mike Higgins	mike_j_higgins@fws.gov
Monty Porter	Monty.Porter@owrb.ok.gov
Nancy Schuldt	nancyschuldt@fdlrez.com
Steve Wolfe	shwolfe@fio.usf.edu
Susan Holdsworth	holdsworth.susan@epa.gov

Participating by Phone:

Bob Hirsch	rhirsch@@usgs.gov
Britta Bierwagen	bierwagen.britta@epa.gov
Carol Lewis	cilewis@usgs.gov
Charles Kovatch	kovatch.charles@epa.gov
Dennis Apeti	dennis.apeti@noaa.gov
Dwane Young	young.dwane@epa.gov
Hugh Sullivan	sullivan.hugh@epa.gov
Jane Caffrey	jcaffrey@uwf.edu
Kim Haag	khhaag@usgs.gov
Kim Martz	kimmartz@usgs.gov
Marc Petta	marc.petta@waterboards.ca.gov
Mike McHale	mmchale@usgs.gov
Mike Woodside	mdwoodsi@usgs.gov
Sam Lee	slee@leegov.com
Sheri Alcalde	salcalde@usgs.gov
Wendy Norton	wenorton@usgs.gov

