

Water Information Strategies Workgroup

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A. Support Integrated Monitoring and Analysis Among Different Programs and Organizations

1. **Goal:** Share/explore roles of different monitoring, including probabilistic and targeted designs and how to integrate them to begin to answer questions beyond what the individual programs could address. Get people thinking in terms of “What is your question?” Show how the integration can be used to help better address State questions and needs (TMDLs, compliance, assessment) on status and trends, and to address the role of indicators. Demonstrate “on-the-ground” examples of benefits of integrating data – such as demonstrated in the Southeast with the integration of USGS and STORET data. Seek to illustrate the data and analysis integration in NMN areas and to promote the utility of the Network. Articulate captivating vision and distribute among Council Members.

- Champions – Pixie Hamilton, Susan Holdsworth, and Mike McDonald
- Other interested members – Richard Mitchell, Ellen Tarquinio, Stoddard, Paulsen, Olsen, Aaron Borisenko
- Develop written materials to meet different audience needs (detailed issue paper to monitoring community; fact sheet and policy briefing sheet to policy makers) to meet different audience needs) that highlight water issues and kinds of questions; how different monitoring designs address questions (probabilistic, targeted, for example). Use the paper to highlight how the different monitoring programs and objectives support regulatory, survey, compliance, and assessment needs. Highlight role of volunteer monitoring such as in filling in needed geographic gaps. Provide examples, including, for example:
 - Oregon – demonstrate probabilistic merged with land use characteristics – Willamette – full report due June 2009 (Fact Sheets available). (Aaron Borisenko, OR)
 - Southeast regional example – nitrogen (Pixie Hamilton, Donna)
 - EPA examples – such as work by Ellen Tarquinio and Richard Mitchell
 - John Stoddard – statewide assessment of OR – includes WQI scores and biology (500 sites)

- **Action:** Paper available, first DRAFT, annotated outline and examples of successful integration, by Spring 2009 meeting (discuss with Council members at March 2009 meeting)
- **Action:** Develop ideas for dedicated website that hosts the written materials and “toolbox” of examples and best practices, along with Power Point presentation, and maintains examples of the benefits of integrating data – dynamic system with evolving examples of successful integration and the questions that are successfully addressed.
- **Action:** Coordinate topic with sessions at the NWQMC conference
- **Action:** Susan and Peter Tennant will raise subject in their monitoring calls with States, 1st Monday every month

2. Assess the States role in helping to define and support indicators and data needs and availability

- Champions – Mary Skopec, Warren Kimball
- Other interested members – Peter Tennant, Doug McLaughlin, Don Dycus, Debra Hammond, Jeff Ostermiller, Chris Piehler
- **Action:** Distribute NEST information, presentation, and prospectus and Heinz Center “Road Map to the Future” to the States. Define questions for State feedback (ask about challenges and ideas for useful indicators). Gather information on existing State indicators. What are States doing to talk with their legislatures?
- **Action:** Conference call with other WIS members before NEST meeting to share State response.
- **Action:** Give feedback to Robin O’Malley ahead of NEST meeting; State response to “Roadmap for the Future” (get copy of the pyramid for use)
- **Action:** Present information at February 10-11 meeting on NEST in Reston, VA – Peter Tennant, Mary Skopec, Warren Kimball, Don Dycus, Gregg Good, David Wunsch
- **Action:** Regroup with WIS members after NEST meeting and design next steps on how to broaden the application to collaborate in NEST effort after meeting in February

3. Explore and promote the utility of volunteer monitoring in the integrations

- Champions – Peter Tennant and Warren Kimball
- Other interested members – John Hummer, Alice Mayo, Candy, Gary Kohlhepp, Mary Skopec, Chris Piehler. **Action:** Confirm interested members.
- **Action:** Outline specific questions about volunteer monitoring and relations to strategies. Ask EPA (Alice Mayo) to review strategies and see how volunteer monitoring fits in. Where have States identified volunteer monitoring? Outline specific questions for volunteer monitors.
- **Action:** Speak with Linda Green and Chris Stepenuck about the National Facilitation Volunteer Grant and progress.
- **Action:** Identify advantages (benefits) and disadvantages and challenges on volunteer monitoring – incorporate in white paper?
- **Action:** Interact with selected State Councils – provide information on how States handling volunteer monitoring data (i.e. how does the data get into the states? Web based submission tools available in States? Share?)
- **Action:** Incorporate volunteer monitoring into conference – involve Linda Greene
- **Action:** Solicit the interest of a State Council to present at upcoming NWQMC meeting.
- **Action:** Share with States the availability of the EPA web based submission tool to WQX
- **Action:** Build matrix on the who, methods, resources, etc – place on web for others to see (subsequently pass to Methods Board so that volunteer methods are reflected in NEMI)
- **Action:** Contact EPA (Alice Mayo, for example) on availability of guidance on quality assurance to facilitate the integration of volunteer monitoring in standardized manner.

4. Monitoring Clearinghouse and Technique Expert System

- Champion – Jason Jones and Jeff Ostermiller and Don Dycus
- Others interested: Larry Keith
- Goal is to facilitate access to current information on monitoring designs, expertise, statistical tools and other assessment/reporting tools, and techniques and for what (why)
- **Action:** Develop concept paper before Spring 2009

- **Action:** Query the sensor group (Eric V.). How do you analyze the data? What kinds of questions can the sensor data be most relevant?
- **Action:** Generate questions and give to Susan Holdsworth for conference (involve EPA monitoring coordinators in each region)
- **Action:** Involve EPA's FEM (Forum and Environmental Measurement) who work on monitoring methods, including sensors
- **Action:** Explore web capabilities in handling the information (USGS)

5. Monitoring needs/strategies to address climate change

- Champions: Jane, Tony, Gary, Dave Wunsch
- Goal: To educate the water community on the need for long-term monitoring, especially at reference sites, to be able to tease out landscape and man's activities from long-term natural hydrologic cycles; and to provide guidance among States needed on how States can/are monitoring for climate change – when you sample, biological indicators that are relevant
- **Action:** Suggest conference session to include stories on how we anticipate changes and how it may affect monitoring and selection and protection of reference sites. Propose plenary speakers.
- **Action:** Explore what parts of existing State monitoring can be used to address climate change?
- **Action:** Outline the content for a position paper/Fact Sheet with members on sub-committee of NGWN; present in Spring 2009
- **Action:** Get contact information for others working on the issue (EPA, USGS)

B. Support Assessment and Reporting Tools – Discuss jointly with Methods Board

Action: Peter will talk with Leslie, who will work with Jeff, Jason, Don, Doug, and Eric