



Advisory Committee on Water Information

Advisory Committee on Water Information Annual Meeting February 10-11, 2009

DAY ONE – TUESDAY, FEBRUARY 10, 2009

Registration

Welcome to ACWI –

Matthew Larsen, ACWI Alternate Chair

Matt welcomed everyone to the meeting. Matt briefly introduced himself and Wendy – both new to leading ACWI, and Pixie Hamilton – the new Co-Chair of the National Water Quality Monitoring Council (NWQMC). Matt commented on the new administration and Michelle Obama's visit to DOI.

Introductions were made around the room.

Matt noted that he is glad to be here at this "family reunion." He values the message and support that ACWI receives from our stakeholders.

Matt briefly discussed upcoming agenda items.

An invitation to participate in the NEST public forum (immediately following the ACWI meeting) was made.

Update from National Water Quality Monitoring Council (NWQMC)

Co-Chairs: Charles Spooner, U.S. EPA; Pixie Hamilton, USGS

- Successes and Future Directions for the NWQMC
- Collaboration between EPA and USGS
- National Water Quality Monitoring Network Update

Pixie noted that the Council identified priorities for the next couple of years leading up to the next biennial conference in its December 2008 meeting. Pixie noted that the Council is a national forum, and primary missions of the Council are to facilitate partnerships and to serve as a voice for monitoring practitioners. The Council recognizes that the collection of data and sharing data is fractured.

Pixie focused her discussion on the Council's Collaboration and Outreach (C&O) and Water Information Strategies (WIS) work groups, and Chuck focused his presentation on the Network progress.

Information from Pixie's discussion is summarized in the NWQMC briefing sheet provided at the meeting.

C&O Work Group –

- National biennial conferences (2008 was most recent – over 400 in attendance).
- Lisa Jackson, an advocate for water monitoring, is part of the new Administration.
- Next conference is in April 2010 – Denver, Colorado.
 - Themes may include: climate, advancing technology, ecological services
- State and regional councils are vital -- underway in 17 States now. The Council would like to serve as an umbrella for these State and regional councils.
- An on-line newsletter will provide another means of exchange with water practitioners.

EPA / USGS Common Web services for Water Quality Exchange (WQX) –

- Nomenclature is consistent with WQDE between USGS and EPA.
- Data is retrievable for 8-digit Hydrologic Units.
- We need more user friendly forms to move from tabular spreadsheets to mapping. This is the next step for Nate Booth (USGS) and others.
- Goal is to put into a portal – one-stop shopping.
- It will also be important to bring NOAA into the mix – merge coasts with estuaries and streams. Money is critical for continuing this effort.

WIS Work Group Goals –

- Integrated assessments.
- National indicators.
- Volunteer monitoring – New Jersey is saving \$440K by using data from volunteer monitoring efforts. The State has found a way to use the data collected by volunteer monitors.
- Clearinghouse for assessment tools and experience.

Despite methodological differences, we can come up with tools / models to enable ability to assess conditions when we incorporate data from multiple agencies. We will be able to show where there are gaps that need further evaluation.

Chuck Spooner – National Water Quality Monitoring Network (NMN)

- Chuck provided a brief background of the Network and its charge from the Council on Environmental Quality (CEQ).
- Brief discussion of Network design features and structure of the design.
- Progress in monitoring and next steps.

Proposal for ACWI to adopt implementation of the Network as a policy goal; espouse "Evolving Implementation."

- *Explore whether the Network can serve as the roadmap for the adoption of the concepts and components of monitoring and information sharing.*
- *ACWI can communicate progress in the pilot studies, evolution of the Network, and monitoring other programs to CEQ and other requesting agencies.*

- Council also recommends that ACWI add streams, lakes, and rivers – encompass all of the United States.

Chuck noted that a draft resolution to ACWI adopting these new directions is included in the meeting folder.

- Matt Larsen encouraged the ACWI to review the draft resolution and provide feedback. (This resolution was later withdrawn, pending revision, and ACWI did not vote on it at this meeting.)

Questions –

Sue Lowry asked about data standards, with Chuck commenting that the NMN will subscribe to the data standards set forth by ACWI.

Edie Stevens asked about the incorporation of State data. Chuck responded that there is very little State data in STORET. Other agencies (i.e., NOAA) will probably join the State of Virginia. The hope is that the portal will become a gathering place for data.

Darryl Glover commented that the State of Virginia recently received a grant for data.

Don Dycus asked Chuck to speak to the portion of the resolution regarding the addition of streams, lakes, etc. **Chuck** commented that the design goes far upstream, but stops at the HUC-6 level. The current design does not have a resolution below the HUC-6. The NMN is now seeing that lakes and streams are a finer resolution – these fit the concepts in the Network design. There will be other contributors besides EPA studies. The resolution follows the same quality assurance and data management goals. This shows how other monitoring programs can be affiliated with the Network. **Pixie Hamilton** noted that the Network is not just about spatial trends, but is also about temporal trends. A lot of other powerful data sets fit in the Network.

Donna Myers asked if the Council would go back to the design to describe how new data would be included. Beyond ACWI, would there be a reporting out to policy-makers? **Chuck** responded that, yes, there could be, but this has not been mapped out yet. The proposal today is to expand the Network into these areas. The group is anxious to push this up as high as we can go and is open to suggestions on how to do this.

Larry Butler commented that the North American Lake Management Society (NALMS) is interested and feels that their membership would participate.

Doug McLaughlin questioned the timeframe for the ground-water monitoring network proposal. **Chuck** responded that the group has not really anticipated this yet.

Have we seen results of Pilot Studies? **Chuck** responded that the results were discussed at last year's ACWI meeting are available on the Council website – <http://acwi.gov/monitoring>.

Pixie noted that two documents are available on the Web – The Executive Summary and Report are available; Refinement report – wetlands, nutrient monitoring, constituents that we need to think about.

- Reference <http://acwi.gov/monitoring/network/>

The pilots have moved to implementation phase.

Matt Larsen brought up the Rules of Order for voting (Voice Vote) in preparation for voting on the NMN Resolution.

Sue Lowry suggested postponing the vote until Wednesday morning for all three of the resolutions that were being brought before ACWI for consideration. All agreed that this was the best approach.

Break

Report from Subcommittee on Ground Water (SOGW)

Co-Chairs: Bob Schreiber, ASCE; Bill Cunningham, USGS

- Summarize recommendations for a National Ground Water Monitoring Network (NGWMN).
- Address questions or major review comments resulting from ACWI advance review of SOGW's Framework document.
- Confirm "roadmap" for how to proceed and request ACWI approval.

The hallmark of the SOGW is the representation from States -- 70 people from 54 organizations.

Bob discussed the progress to date of the committee, noting that Statewide programs are a "patchwork quilt" of networks – 42 States have a Statewide water-level network, 17 have a Statewide water-quality network (32 Statewide or regional).

(Reference slide on Chapter 2: Statewide Programs)

Goals and Design – Principal and major Aquifers

New technologies will be incorporated into the NGWMN as appropriate. A data portal is the most critical component, and needed early in the process.

- Existing systems evaluated.

Implementation/Recommendations

- Establish a NGWMN, according to the design-parameters in the Framework document.
- Explore and facilitate Federal funding opportunities, cooperative agreements, and any and all feasible options to help support the Network.
- Initiate pilot projects.

Establish the network

- Create a network management structure.
- Create a national ground-water.
- Proposed management structure.

Next steps

- Request passage of the proposed ACWI resolution on the SOGW Framework document.

Comments on the Framework document were received from:

- NWQMC – Fall 2009 meeting (via Dave Wunsch) and Chuck Spooner (NMN Perspective).
- NOAA – Gary Carter.
- Manatee County – Greg Blanchard.
- SOGW Organizations.

Categories of comments: coordination and interaction with other ACWI and NWQMC initiatives, NOAA's related activities, data portal development.

Bob Goldstein commented that in the past, we have looked for datasets on ground water aquifer capacity. Does this exist? Bob is looking for a point of information for such data.

Bob Schreiber referred to the SOGW's "walk before you run" theme. **Bill Cunningham** commented that there is not a database that he is aware of. This is a complicated question. Bill noted that the volume of an aquifer is only marginally useful, from his perspective. Tend to focus on how much is available, useable. From Bill's perspective, the data do not exist.

Chuck Job shared questions from Mike Shapiro -

What is the cost?

Who will pay for it?

How will answers to questions affect the pilots / network?

Can we be more specific?

Bob Schreiber made comments regarding facilitation of funding through their organizations. **Wendy Norton** responded that the ACWI can make recommendations and send forward a proposal to the Department.

Chris Reimer noted that the Secure Water Act passed the Senate (S.2156) and is on the House calendar – subject to a rule this week. The Act would provide for a ground-water monitoring network.

Sue Lowry commented that the conceptual design is on the money. Sue was interested in next steps and if the SOGW has had conversations with CUAHSI. Bob noted that CUAHSI is nicely funded.

U.S. Group on Earth Observations

Dan Walker, Office of Science and Technology Policy

- Last minute cancellation – unable to attend.

Lunch

Water Resources and Flood Hazards in a Non-Stationary World

Robert Hirsch, USGS

Water planning centers around risk / cost tradeoffs.

"Finding a suitable successor is crucial for human adaptation to changing climate."

"Modeling should be used to synthesize observations; it can never replace them."

"In a nonstationary world, continuity of observations is crucial."

Need to put emphasis on long time series.

What do the data actually tell us?

- Flow timing shifts in areas where snow has been significant.
- Increasing low flows.
- Increasing average flows.
- Changes in flooding, very unclear.
- Changes in ground-water recharge, very unclear.

Models suggest a substantial rise in "precipitation intensity" – but how does that relate to large floods? All of the models tend to do a poor job of replicating the magnitude of extreme precipitation events.

Analysis of flood data –

- Published studies at national to global scale show no general trend towards larger floods.
- Small indication of a step increase around 1970.
- Milly et al. 2002, looking globally at very large basins, at 100-year return.

Changing flood risk is an important issue in climate-change adaptation.

Conclusions –

- At this time, there is no scientific basis for revising flood frequency methods for climate change.
- Keep analyses up-to-date – many of our flood and intense precipitation analyses are several decades old, but are still used as the basis for engineering and design.
- Take advantage of the most recent data.

Bob discussed water resources planning. He noted that it is important to pay attention to what is happening hydrologically. It is important to not lose track of other major change drivers (i.e., ground water depletion, eco-flow requirements, nutrient enrichment, demographic/economic, energy changes).

Ground water depletion is not just a western issue.

Importance of measurements – not just modeling – Recording the Earth's Vital Signs (*Science* 2008, p. 1771-1772, Ralph F. Keeling).

100 gages with more than 30 years of record shut down in 2007 – loss of important scientific assets.

There are two emerging schools of thought in the water management community:

- Search for "actionable science" – need to have forecast for what is going to happen in my watershed so that I can plan ahead; in order to be actionable, an issue has to be well-defined, and climate change is not... insufficient coordination among groups doing the studies... (Patricia Mulroy, "Diving in the Deep End").
- "Adapt to uncertainty."

Bob emphasized new contributions from 4 Federal agencies – Reference USGS Circular 1331 – Climate Change and Water Resources Management: A Federal Perspective – <http://pubs.usgs.gov/circ/1331/>.

Final thoughts

- Keep monitoring.
- Explore the data.
- Be prepared for surprises.
- Adapt to uncertainty, it won't go away.
- Consider all of the sources of uncertainty.
- Focus on flexibility and regional collaboration.

There was a request for Bob to comment on data collection methods 100 years ago versus today? Bob responded that some data are collected with extremely consistent methods, thus, data collection should not be an issue.

Sue Lowry asked Bob to elaborate on regional collaboration. Bob noted that the Potomac River Basin is a good example of a diversified "portfolio," the flip side is GA, FL, AL – will not collaborate. In the west, shortage criteria and CO River Basin States – need to have a plan on how to get through potential drought in a few years.

National Water Quality Assessment (NAWQA) Liaison Update

Donna Myers, USGS; Judy Campbell Bird, consultant

- Donna and Judy briefly described the recent NAWQA stakeholder meeting at which the design of NAWQA Cycle III studies was discussed.
- Details of Cycle III studies are available online - <http://water.usgs.gov/nawqa/BriefingSheet.20081009.pdf>

NWQMC Methods and Data Comparability Board (MDCB)

Dan Sullivan and Eric Vowinkel, USGS

- Methods Board seeks ACWI approval for an update of the Water Quality Data Elements User Guide to include physical habitat elements. ACWI will vote on the resolution February 11.
- Dan Sullivan demonstrated the new web page for the National Environmental Methods Index (NEMI) – <http://www.nemi.gov>.
- Dan and Eric reviewed accomplishments of new work groups on Sensors, Contaminants, and Statistics.

Subcommittee on Hydrology – activities and status

Mary Greene, NRCS National Water and Climate Center

- Hydrologic Modeling Workgroup is working with the Subcommittee on Sedimentation to plan the 2010 Joint Hydrologic Modeling and Sedimentation Conference, which will be held in Las Vegas, NV, June 27 - July 1, 2010.
- Satellite Telemetry Interagency Workgroup has developed an emergency data distribution system at the USGS EROS Data Center in Sioux Falls, SD.
- Hydrologic Frequency Analysis Workgroup has developed a plan to evaluate improvements in Bulletin 17B.
- SOH has implemented a new Extreme Storms Workgroup, which involves Bureau of Reclamation, Corps of Engineers, Nuclear Regulatory Commission, National Weather Service, Office of Surface Mining, National Hydrologic Warning Council, and Department of Agriculture. The group's objectives are to --
 - Coordinate studies and databases for reviewing and improving methodologies and data collection techniques used to develop design precipitation estimates of large storm events up to and including the probable maximum precipitation.
 - Develop a detailed work plan of study and determine the necessary funding requirements to update the Catalog of Extreme Storms and Hydrometeorological Reports.

Opportunity for other ACWI sub-groups to report

None of the subgroups chose to report at this time, since they were either presenting elsewhere on the agenda or had provided written status reports prior to the meeting.

Adjourn

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DAY TWO – WEDNESDAY, FEBRUARY 11, 2009

Matt opened the meeting with announcements. He commented that this week is the 200th birthday of Abraham Lincoln and Charles Darwin.

Matt noted that the second agenda item will be voting on the resolutions presented to ACWI.

Activities of the National Council for Air and Stream Improvement, Inc. (NCASI)

Doug McLaughlin, NCASI

Doug gave a brief overview of NCASI – its background, facilities, and areas of technical study. The current NCASI membership represents 95% of today's U.S. pulp and paper production. The agency operates in U.S. and Canada.

- NCASI is using GIS developments to "know our watersheds."
- Water footprint analysis – sustainability assessments and indicators.

Doug discussed surface water research areas related to manufacturing – statistical methods, long-term receiving waters study, water "footprint" analytical techniques – as related to pulp and paper mill activities.

NCASI is a significant user of data / information from such agencies as USGS, and has used the data characterize the locations of pulp and paper mills.

It was asked how NCASI is funded, with Doug responding that NCASI is funded through membership dues.

RESOLUTIONS Presented for ACWI Approval – (voice vote)

Addition of elements to Physical Habitat data elements WQDE –

- Motion – Fred Bloetscher.
- 2nd – Don Dycus.
- ACWI adopted the resolution by voice vote with no dissenters – Motion Carries.

SOGW resolution – (Reference handout)

- Motion – Fred Bloetscher.
- Thanks to the Committee from Charlie Hunsicker.
- 2nd – Don Dycus.
- ACWI adopted the resolution by voice vote with no dissenters – Motion Carries.

Interstate Council of Water Policy Activities

Sue Lowry, ICWP

Common themes from cooperator stakeholder meetings

What can cooperators do better?

What can USGS do better?

- Get the funding mix back to 50-50.
- More timely reports.
- As Federal funding gets tighter, changes in data. How can we get to these data?
- Data portal issue – how do we get people to know that the data are out there and accessible?
- YSI, SonTec, and InSitu looking at 3 areas – completion target of fall 2009.
- Water For America – Water Census piece.
 - Water use data gap is important to address.
- Mike Norris (USGS) hosted a WebEx conference to discuss the National Streamflow Information Program (NSIP) – ACWI Executive Secretary will get the word out to ACWI members about future WebEx sessions.

Charlie Hunsicker asked about what kinds of decisions are used in NSIP? What came out of the conversation? **Sue Lowry** responded that there has been success in getting money to NSIP in a few areas. There are 5 national interest criteria within NSIP that need to be met to determine if a gage is eligible for funding through NSIP.

Matt commented that there are a number of basic goals for the NSIP program.

Reference: <http://water.usgs.gov/nsip/>.

- 4700 gages that have significant importance – NOAA weather-related gages – reason for why they are on fully funded list.
- Average \$15,000 per year to run a gage.
- NSIP is funded at about @ \$18 million; entire network costs about \$130 million; thus, the need for cooperators.
- Optimistic for FY 2010 that there will be some support. The President's budget should be known soon.

Dave Carlton asked if gages and radios have been updated. **Matt Larsen** responded approximately 60% have been updated. If additional funds are appropriated under the economic stimulus package, we should be near completion.

There is a combination of streamgages that are funded by NSIP and those that are funded by State and Federal partners. USGS is trying to reinstate gages that have been discontinued due to loss of partner funding. With the loss of 50-200 gages per year, reinstatement of these discontinued gages is not easy to accomplish.

Sue noted the importance of providing guidance back to the Department.

- Sue noted that ACWI has gone to a once a year meeting, and these meetings are focused much of the time on subcommittee updates.

- Sue questioned what kind of guidance ACWI is actually giving to the Department – especially now that there is a new administration in place.
- Sue noted that the ACWI was mentioned in the Secure Water Act.

ICWP is interested in the data portal issue and what kind of feedback is going to the Department.

Chuck Spooner commented that we talked about web services. There has long been an agreement that there should be a common data portal. Chuck remarked that he has been told that there may be funding available to create that portal. EPA is initiating conversations with USGS to see how to make it happen. There needs to be a provision that this will be a portal that others can join – perhaps a portal that the SOGW can identify with.

The USGS and EPA will be working on this endeavor.

Comment was made that California is setting up a Statewide system of portals. What is the nesting process?

Chuck commented that there will be a common set of protocols. Stating interest and putting in your card would be the first step.

Subcommittee on Sedimentation (SOS) Overview and Summary of Dam Removal Workshop

Jerry Webb, USACE; Jerry Bernard, USDA

SOS – Workshops/Conferences:

- Sediment Management and Dam Removal Workshop – Portland, OR, October 14-16, 2008.
 - Follow-up – October 2009
- Working with Subcommittee on Hydrology to plan for 2010 Joint Hydrologic Modeling and Sedimentation Conference – Las Vegas.

RESSED – Reservoir Sedimentation Website and Database is an in-construction website that will build on the RESIS-II database. Currently, we are in the final step of the USGS RESIS-II data report processing (editing by USGS Enterprise Publishing Network in Reston). It is expected that the product to be on-line in February 2009 through the USGS pubs warehouse.

Future directions for the Subcommittee were discussed:

- RESSED format is based on data fields from a one-page form (Form 34).
- Form 34 is being automated for use in updating the database as new survey information is made available.
- In the short term, procedures for updating the database will be tested by the Federal agencies.

It is anticipated that there will be great interest in RESSED by those with interested in specific reservoirs, as well as researchers, grad students, and resource planners.

Jerry Bernard discussed dam removals, noting that there are a wide range of sediment issues.

Next steps involve requesting ACWI endorsement of guidelines for dam removals. This would facilitate future discussions.

Jerry Webb and Jerry Bernard acknowledged Carol Lewis with the first SOS award. The Subcommittee thanked Carol for her efforts on the Web page.

Roundtable – Report from each ACWI member organization

12 ACWI member organizations represented at the table.

Doug McLaughlin – Spoke earlier in the meeting. (See presentation on National Council for Air and Stream Improvement, Inc.)

Sue Lowry noted upcoming meetings

- D.C. roundtable March 25-27, 2009.
- 50th anniversary will be commemorated at the ICWP annual meeting in Jackson, Wyoming.

Tom Leahy noted the importance of streamgauge issues.

Daryll Osterhoudt – Association of State Drinking Water Administrators (ASDWA) is working in cooperation with EPA, the WAES initiative – national analysis of State drinking water programs; paper should be finished this week and available from ASDWA's website in source water protection area --

<http://www.asdwa.org/index.cfm?fuseaction=Page.viewPage&pageId=523&parentID=473&nodeID=1>.

- Participation with EPA on a conference in the fall – Denver, September 2009.

Bob Schreiber –

- World Environmental and Water Resources Congress – Kansas City, May 17-24, 2009 -- <http://content.asce.org/conferences/ewri2009/>.
- EWRI – State programs in water resources.
- New version of book coming out in the next year.
- Regarding the entire American Society of Civil Engineers (ASCE), with Obama administration's funding toward infrastructure rehabilitation.
- Report card on America's infrastructure; bob noted several items that have low grades on the report card that are pertinent to ACWO activities – <http://www.asce.org/reportcard/>.

Pedro Restrepo – Spoke about NOAA's proposed Integrated Water Resources Science and Services (IWRSS). Objective of IWRSS is to collaborate, leverage existing and new partnerships, and adapt to exploit new data, models, systems, and science to provide the Nation with a suite of consistent water resources monitoring and forecast information.

Rick Swenson noted the new Agriculture Secretary as well as other new administration; Conservation Effects Assessment Project (CEAP) – suggested having the CEAP folks attend the next meeting to discuss the project.

Jerry Webb – The Corps of Engineers is changing. The Corps has been mandated to share their data. Work on improving data sharing at a higher level.

Matt Larsen noted USGS' strong relationship with other agencies. Matt noted the 4-agency report – USGS Circular 1331 on climate.

Association of State Flood Plain Managers (ASFPM) – Climate change is an issue to its constituents. There are individual basins that show trends. ASFPM is interested in keeping long term gages up to date. Precipitation update – statistics have not been updated for 30-40 years. Upcoming meetings were mentioned.

Larry Butler – NALMS is completing a remote sensing guidance manual which will hopefully be released this summer. NALMS would like to hold a hands-on workshop at its fall conference in Connecticut. Specific questions can be addressed to Steven Heiskary. Larry also noted that the NALMS website is being updated – <http://www.nalms.org>.

Fred Bloetscher – There is a growing sense of structural change. It is clear that there are large areas affected – sustainable water; noted serious economic viability issues; streamgages are important as climate change becomes more important; need more ground water information; members may have useful contributions; sustainable water resources conference – Next February; annual conference in San Diego.

Eileen O'Neill – WEF has a close relationship with NAWQA; members are users of the data and information generated by the ACWI members around the table; stimulus funding is on minds of users and what it might mean for water issues; reference the WEF website for additional information – <http://www.wef.org/>.

- Top tier issues – sustainability in terms of climate change, mitigation of climate change, how design water and wastewater infrastructure.
- Interest in low hanging fruit approaches.

Matt Larsen commented that Grace Napolitano has an interest in ground water and is receptive to messages on that topic. She is a representative in California.

Harry Zhang – Harry noted upcoming AWRA conference – May 4-6, Alaska – Climate change, paleoscience; refer to AWRA website – <http://www.awra.org/>.

NGWA rep – Thank you to ACWI for approval of resolution; Annual Ground Water Summit – Tucson; Conference on pharmaceuticals – Baltimore, MD, Sept. 2009.

Joe Lee – State administrators – unique position; The GWPC commends the SOGW on hours of work; GWPC 2009 spring meeting will be held in conjunction with NGWA summit; mid-September 13-17, Salt Lake meeting – Annual Forum – Water Energy Policy for the 20th Century; noted fact sheets on web page – State GW factsheets – for all 50 States – types of GW, aquifers in States – GWPC web site – <http://gwpc.org/>.

Barney Austin – Formalize coordination; Western Governor's tasked the Western States Water Council (WSWC) to look at water availability and how we should meet demands – implementation phase; recommend that the Corps, Bureau of Reclamation, and others with a role in water planning look at water planning and how to coordinate their efforts.

Charlie Hunsicker – National Association of Counties (NACO) is still strong – Legislative conference March 8-12, 2009 – Washington, D.C. The National Association of County Planners (NACP) hopes to keep the NSIP on the table.

Matt Larsen opened the floor to public comment after the members spoke.

Public comment period

Peter Williams, IBM -- Water Innovations Alliance; Attract funding for industries in the water sector; have provisionally identified a work program -- link scientific work with management activities; Work toward shared collaboration across a water resource; third area – develop pilot; actively soliciting members.

Matt Larsen commented on the IHP – UNESCO – International effort with committee members worldwide; meet twice a year in Washington, DC – May, 2009 – reference <http://water.usgs.gov/nrp/IHP/>.

Review ACWI action items and calendar reminders

Actions:

1. Methods Board to proceed with addition to WQDE of physical habitat data elements.
2. SOGW – actions outlined in the resolution; ACWI will make a framework document available to DOI, OSTP, CEQ, ACWI Members, Water & Science.
3. SOGW – Approved to continue 3 working groups and restructure design group to implementation.
4. NMN – revise resolution and present to ACWI at a later date they feel is appropriate.

Presentations and minutes will be available on-line soon.

Next National Conference – April 2009 – Denver, Colorado.

NWQMC will meet in Salt Lake City – March 2009.

SOH – additional information on Portal development – communication from subgroups up to ACWI and back down to groups; need to make sure work is coordinated.

Wendy Norton proposed having agenda time to improve coordination among subgroups; Wendy will work with these groups to facilitate this dialog.

If staying for NEST, please sign in for the meeting -- Registration opens at 12:30, meeting starts at 1 pm.

Bob Goldstein requested notification when presentations are posted on-line.

Matt Larsen made closing remarks to the committee and thanked all for their participation. Thank you to Wendy for organizing the meeting. Thanks to Wendy's staff for all their efforts.

Meeting adjourned