Advisory Committee on Water Information (ACWI)
2008 Annual Meeting – February 20-21, 2008

Celebrating a Decade of Successful Accomplishments - 1997-2007

MINUTES

DAY ONE – WEDNESDAY, FEBRUARY 20, 2008

Open the Meeting and Introductions
Robert Hirsch, U.S. Geological Survey (USGS), Associate Director for Water and ACWI Alternate Chair

Bob Hirsch opened the meeting and welcomed all participants.

Welcome Remarks
Tim Petty, U.S. Department of the Interior (DOI), Deputy Assistant Secretary for Water and Science and ACWI Chair

Tim Petty made opening remarks to the ACWI, thanking ACWI members for their commitment to the committee. Tim noted that the full roundtable speaks highly of the committee to the Secretary of Interior.

Introductions Around the Room (ACWI Members and Guests)

Introductions were made around the room

ACWI Federal Roundtable
Brief updates from Federal agency managers on significant changes in water programs and funding in FY 2009

- ***U.S. Environmental Protection Agency*** – Mike Shapiro, Deputy Assistant Administrator for Water

  The EPA budget focus will be on water efficiency --
  - Infrastructure sustainability
  - Water Census
  - Water security will also be addressed in pilot studies.

- ***Department of Agriculture*** – Richard Swenson, Animal Husbandry and Clean Water Division

  Richard mentioned the Conservation Effects Assessment Project (CEAP Model)
  Bob Hirsch asked for more information about the model.

- ***National Oceanic and Atmospheric Administration***, Gary Carter, Office of Hydrologic Development

  (Reference PowerPoint Presentation)

  - NOAA is starting to look at itself as a weather forecasting agency.
  - Advance water forecasting tools - Reference Advanced Hydrologic Services web

- ***U.S. Geological Survey*** – Wendy Norton, Office of Budget and Performance

  (Reference Talking Points)

  - Wendy discussed the budget for USGS Water Resources programs, noting that the USGS request for 2009 is decreased by $17.5 million from 2008.

- 09 budget for water programs includes additional resources for the Water for America Initiative ($9M) – a multi-bureau initiative
- Funds will be used to initiate a Water Census and make upgrades to NSIP to ensure continued relay of water data when satellite technology changes
- Budget news of interest to ACWI members
    - $9.5 million for Water for America Initiative
        - $1.5 million for National Cooperative Geologic Mapping Program
        - $3 million in Ground Water Resources Program (GWRP)
        - $5 million in National Streamflow Information Program (NSIP)
    - Proposed increase in funding for the National Water Quality Monitoring Network (NMQMN) in efforts to reach the full proposed $1.5 million level of 2008.
- COOP Program -- $.5 million decrease
- NAWQA Program -- $10 million decrease

Questions:
Q: What percentage of NAWQA budget?
R: 15-20%

Q: What other programs are affected?
R: Minerals is the main program – approx. half of their program

Q: How many streamgages will be reactivated?
R: About 50

Q: Will any gages be discontinued?
R: There is no plan to discontinue gages, however many gages are funded by cooperators so the possibility does exist.

Q: Are earmarks programmatic with the budget proposal? Any cut to the COOP Program, effectively means gages will be lost. This shifts the burden of funding gages to cooperators. How complicated is program planning for next year?
R: The budget proposal is not related to the executive order. Executive Order would not be implemented for 2008. There is a lot of interpretation to be done. Minusing out of earmarked funds is a standard practice for agencies. In terms of the USGS, for water, most earmarks are programmatic. They are not aimed at a particular congressional district and are not grants to a university. They are mostly for activities that USGS would like to pursue whether there is money or not. Program planning can be difficult. Much is dependent on the sponsor of the earmarked funds and who has the clout to be heard.

Bob Hirsch commented that "earmarks" is a loaded term. He noted studies in Arizona and the Memphis Aquifer -- critical programs. There is only 1 earmark currently in the budget that expects us to give up money – to a consortium – Tulane University

- ***Tennessee Valley Authority*** – Jack Brellenthin, Environmental Policy and Strategy
    - No federally funded mandate
    - Vital signs monitoring program

- ***Federal Emergency Management Agency*** – Allyson Lichtenfels, Flood Mapping Modernization Program

  (Reference PowerPoint Presentation)

    - National Flood Insurance Program
    - Flood map modernization (Map Mod) -- $220 million to complete the program
        - Maps for 92% of the nation's population
    - Partnerships are critical – USGS/FEMA interagency agreement – flood insurance base map; USACE, NOAA

- Levee assessment – work with USACE
- Multi-year flood hazard identification plan

Q: FEMA and climate change
R: FEMA will support a study on the effects of climate change

Q: There is a lot of discussion on 1% chance. How is data collected when updating map?
R: FEMA still uses the 100-year for maps. This has been evaluated many times, but there has not been a push for changing it. Map modernization will complete using the 100-year. Where there is detailed study, FEMA will do a 500-year, but the mandatory insurance requirement is for 100-year.

ACWI Report: Subcommittee on Ground Water (SOGW) Overview, Bob Schreiber, ACWI Rep for American Society of Civil Engineers (ASCE) and SOGW Co-Chair

(Reference PowerPoint Presentation)

Bob expressed his thanks to Chuck Spooner and Gail Mallard for their assistance in getting a committee started. Also, thank you expressed to Chris Reimer for her organization and staffing inputs to the committee.

- Climate change is important
- Asking for guidance from ACWI on whether the group is tackling the pertinent issues.
- Strong state participation is very important

Reports from SOGW Work Groups

Inventory – Bill Cunningham, USGS Co-Chair

- Developed a "picture" of what monitoring efforts are currently being used with input from non-feds – AASG, GWPC, ICWP, NGWA
- Collected information on ground water levels from 43 states regarding quality
- Feds collecting ground water information were polled
- Bill commented on preliminary results – reference map from PPT presentation (colored states)

Field Practices – John Jansen

- Guidelines and standards

Data Standards and Management – Chuck Job, USEPA

Framework Design – Bob Schreiber, ASCE

- The network is seen as a network of statewide networks
- Aggregate up to regional and national scales
- State questions can be aggregated together

Next Steps – Bob Schreiber, Bill Cunningham

- March 2008 meeting at USGS headquarters
- Draft framework to ACWI by summer/fall of 2008
- May 2008 – feedback at National Monitoring Conference

ACWI Discussion and Response on SOGW

- Bob Hirsch opened the floor to questions/discussion.

Q: It is important not to jump too far ahead. There is a need for efforts to merge toward easy standardized access for primary users – electronic portal.
R: Good comment. We would like to see this in the implementation phase. Comment was made that integration of data is a driving force.

Ground water data should have the ability to get from one place to another, but a commitment to the core data is needed. It is critical to have a good understanding and agreement on the core data.

Bob Hirsch complimented the group for their efforts. States are the data holders, and are integral to the data translation process. Having the states play a major role in this process is critical. States must view this as doable for them to participate. Bob commented on the efforts of the USGS and EPA working with CUAHSI on various projects. USGS and CUAHSI are working on web services now. Bob's hope is for ACWI to interact with CUAHSI. Bob suggested involving academics on the committee.

Q: Are you looking at conventional confined aquifers as well as unconfined aquifers?
R: Yes, we are looking at aquifers that are defined as major aquifers, as defined in the national network. This is important for planning efforts on natural resource impacts.

ACWI Report: National Liaison Committee (NLC) for the National Water Quality Assessment Program (NAWQA), Donna Myers, USGS Chief, NAWQA

(Reference PowerPoint Presentation)

Donna gave the committee a brief overview of NAWQA activities.

- Report – January 2008
- Ground and Surface source water-quality assessments and reports - July 2008
- Domestic well report – July 2008
- Development of water quality indicators – coming in 2008
- National circular on quality of the nation's stream ecosystems
- Donna also mentioned proposed reductions in 2009 sampling activities. New groundwater sampling will be stopped, but some ongoing sampling will continue.

Liaison Committee Status and Scheduled Briefings, Judy Campbell Bird, Contractor and Liaison Leader

Judy Campbell-Bird gave an overview of NAWQA meetings and Capitol Hill briefings. Approximately 100 agencies participate in information exchange. Judy commented that March's briefing will be on water availability, and noted that Bob Hirsch will speak about policy decisions and the availability of water in the West.

ACWI Discussion and Response on NAWQA/Liaison Activities

Q: Question about the NAWQA map regarding Program reduction. Some areas were in color and some shaded.
R: The map showed 62 principal aquifers. NAWQA is sampling in 20 of these aquifers. The shading represents the geographic extent within USGS of these aquifers.

Q: Is the proposal to eliminate wells?
R: No, the proposal is to stop sampling there in 2009.

Q: How can members get information on Congressional briefings if not located in the Washington, DC area?
R: Judy responded that some of the information is posted to the NAWQA web site.

ACWI Update: Sixth National Water Quality Monitoring Conference
May 18-22, 2008 Atlantic City, New Jersey, Charles Spooner, USEPA Conference Tri-Chair

http://www.wef.org/ConferencesTraining/ConferencesEvents/NatlWaterQualityMonitoringConference/

- Chuck Spooner provided an overview of the upcoming National Water Quality Monitoring Conference to be held in May 2008. WEF is assisting with the conference. Chuck Spooner, Eric Vowinkel, and Jawed Hameedi serve as tri-chairs
- YSI is requesting ACWI's assistance to work with them to award a $60K grant.
- Chuck reminded everyone about the Elizabeth Fellows Award
- Bob Hirsch thanked YSI for their support, and mentioned the Secure Water Bill in Congress. Bob noted that the private-sector has a great deal to offer and encouraged the group to involve them
- Eric Vowinkel noted that there are opportunities for sponsorships, exhibitorships, and field trips. The conference provides a fun time in addition to the exchange of information.

Guest Speaker: The Climate Change Science Program, Pete Schultz, Director, Climate Change Science Program Office, University Corporation for Atmospheric Research

Reference -- http://www.climatescience.gov/default.php

ACWI Recognition: Special Thanks to our member organizations
Toni Johnson, ACWI Executive Secretary

ACWI Special Session: Water for America Initiative

- **National Water Census**, Robert Hirsch, USGS Associate Director for Water

  Bob Hirsch provided an overview of the Water for America Initiative. USGS is concerned that there is not a good place within our programs and budget to answer the question of "How much water is there?" A 2002 report was published outlining a reasonable approach on how to answer the question. There is a pilot effort in the Great Lakes Basin underway to answer this question.

  Bob mentioned the 2005 Water Use report – still months away. There is concern that federal agencies are not serving the nation well in how we serve the nation's water needs.

  Water Census – Announced in President's budget. Have the information available to understand the nation's water resources and how they are changing on a variety of time scales. There is a more favorable outlook when ideas line up with the strategic plan. Bob noted that Australia is in a protracted drought. Secretary Kempthorne is interested in information and data obtained in Australia, and how they are handling the situation. How long can an aquifer be pumped before it is depleted? The USGS part of the initiative is focused on data and assessment.

- **Overview of Water Supply Management Programs**, Bob Quint, Director, Operations, Bureau of Reclamation

  (Reference PowerPoint Presentation)

  - The initiative began with Secretary Kempthorne – "What is the big picture?"
  - US Bureau of Reclamation (BOR) works in 17 western states and will be working with the USGS and the Army Corps of Engineers
  - Comprehensive basin studies in areas where water supply/demand imbalances are anticipated
  - Efforts will involve securing water supplies through acceleration of species recovery
  - Implementation plans are now being put together and will involve stakeholders in the west

  Questions:
  Q: Is this new money?
  R: No

  Q: Do you envision much change to the program?

R: No, major change is not anticipated. We have had a successful program with Water 2025 and field services program -- cost shares.

Q: There are recommendations for optimized reservoir operations. Does this include non-BOR facilities?
R: The BOR will try to work with stakeholders as part of the process. This is envisioned as a joint report, not just a federal report.

Q: These would be BOR-funded studies?
R: Yes, looking at cost-share activities. The details are being worked out now.

Q: There might be states outside the 17 western states. To what degree have you discussed accommodation with USGS and/or the Corps?
R: This has been discussed. We are working towards a coordinated program. There are no specifics yet, but conversations are taking place.

Q: Are you looking at the feasibility of doing storage facilities as well?
R: This will likely be part of the big picture, but hurdles for new storage are insurmountable.

Q: Are you looking at groundwater storage as part of this?
R: It may be part of the big picture, but groundwater is not where the BOR focus is.

- **Overview of Science Objectives and Proposed Scope**, Bill Alley, USGS Chief, Office of Ground Water

  (Reference PowerPoint Presentation)

  Bill Alley discussed the Great Lakes Pilot Study. This region encompasses both the United States and Canada. USGS has been in communication with Canada. Lake level variability is a major issue in the Great Lakes. Bill discussed reports that have been on water issues in the Great Lakes.

- **Process for Stakeholder Feedback**, Toni Johnson, ACWI Executive Secretary

  Eric discussed the Water for America Initiative. Much effort has been done to show the need for a Water Census. Eric noted Bob Hirsch's comments in the SWAQ report. The Water for America Initiative, over the next 10 years, intends to accomplish the census.

  The overall initiative is $9.5 million –
  - NSIP - + $5 million to update telemetry at gages, re-establish 50 gages, and to develop a new cyber infrastructure
  - GWRP - + $3 million to enhance methods for scientific use of water use data and to share groundwater data across agencies
  - NCGMP - + $1.5 million to enhance geologic mapping and hydrogeologic knowledge of regions being studied, FEDMAP and STATEMAP

  - Regional studies – 6-7 studies started every 3 years, completing the nation in 10 years
  - Focus will be on water budgets and trends in the components of the water budget
  - Intensive studies – 3 studies started every 3 years, smaller-scale studies at the HUC-6 level or smaller; complete 9 studies over the 10 years course; higher funding for these studies

For more information refer to the following web sites:
http://www.doi.gov/initiatives/water.html
http://water.usgs.gov/wsi/

Questions:
Q: This effort looks like a great effort – similar to what the SOGW is doing. Can this be tied in to these efforts?
R: Yes

Bob Hirsch pointed out that the SOGW is mentioned. The SOGW will make suggestions about data that is already being collected. In order to do the type of assessment we are talking about, it is important to gain access to data. SOGW can provide input. This is not a new monitoring effort.

Comment: Charlie Hunsicker raised the issue of things that might be able to be done on a limited basis, for example, salt water intrusion.
R: If intensive study identifies key areas, studies may be done in conjunction with stakeholders.

Q: How will it be determined where geologic mapping projects will go – 1.5M not a lot of money?
R: Initial mapping projects may correspond with areas of intensive studies. We will correspond with BOR on western sites.

Q: Will there be efforts to try and resolve the snowpack issue in the west? How will these efforts be expanded on; ie. measuring snowpack?
R: Eric responded that he cannot forecast new efforts on monitoring snowpack as he does not have expertise in this area.

Bob Hirsch commented on the use of remote sensing techniques – work of NASA, NRCS, NOAA – related to snowpack – also how this plays into groundwater. Bob noted that he would be interested in areas in which to collaborate on such issues. Irrigated agriculture practices are changing – slight decrease in west and increase in east. It is feasible to make estimates in a timely manner on such issues using remote sensing. Step up our interaction with other agencies. See if we can have more timely description of the trends.

Q: Scale… what do you have in mind? Is the Great Lakes larger than what would comprise an intensive study?
R: Yes, an intensive study would be on a smaller scale than the great lakes study -- HUC-6 delineation

Q: Even though studies will be based n a small scale, would you want to be able to use that information elsewhere?
R: Yes, we want to be able to take what's going on in an area and be able to regionalize it.

Q: What kind of accuracy are we talking about? For example, a population census can go down to the level of 1 person.
R: The vision is that regional scale studies will rely on existing data and/or data that comes out of an intensive study. Intensive studies will have some opportunity to obtain data, but will have to utilize existing information. Uncertainty will be great.

Q: For states that share a border with Canada and Mexico, how will you determine how much water coming in from those sources?
R: We will have to work with Environment Canada – data share – to accomplish this initiative. The same issues will apply with Mexico. We will work to utilize data they already have, and may need to use statistical means to fill in data gaps.

ACWI Stakeholder Discussion of National Water Census

Toni reminded members on how the stakeholder discussion will work. Enter into the discussion this afternoon as participants – use the members as a focus group. Provide feedback to help plan how the initiative progresses. If you do not feel you are the best representative, can take this back to your agency. This is not to determine ACWI consensus, but to provide feedback.

Sue Lowry (ICWP) agreed to facilitate the discussion

1. *What are the key types of national and regional decisions and policy issues that need improved water information?*

   Debate between Georgia and Florida was noted.
   - Estuarine management – all have freshwater inflow and outflow issues

   Eileen O'Neill -- The municipal use and reuse of wastewater; paradigm shift that we may likely go through here in the US.

   Fred Bloetscher – Basin management; if we're going to sustain development we need answers to questions. This may depend on where we do these studies. Current thought is that if there is water in the ground it is okay to take it out. If we look at a longer range, and see that aquifer levels are declining, this should raise a policy issue.

   Sue Lowry commented that some drawdown is acceptable – how do such decisions then fit with the Census.

   Fred Bloetscher commented that basins do not follow jurisdictional boundaries. There will be those that say they don't care, but that thought process impacts everyone else in the basin. There are basins where quality is an issue, but efforts may not be directed to those who need it most.

   Bob Hirsch commented that USGS would not use the term over-allocated. In terms of the High Plains aquifer, we have stated the decrease in the aquifer, impact, but may not say that it is over pumped. We provide the facts – what the changes have been and what the impacts are. Anotther area may have different values.

   National trends – there is a tendency of people to migrate to the coast – not necessarily for water reasons, but this does lead to policy implications.

   Chris Lant mentioned ethanol production. Will there be enough water for production of ethanol. Also, don't forget the issue of TMDLs

   John Jansen questioned how is the impact of change quantified? How do you calculate the changes in ecological modeling?

   Webb commented that infrastructure is 50-60% used up. Infrastructure relates to water availability. Some areas are wetlands now, and there is no water for consumptive use available. Sedimentation impacts water use as well. Do we dredge?

   Flood risk assessment and mitigation – "flood pool" change and analysis needs to be recalculated for today's standards.

2. *What specific variables or indicators would be most useful to inform national and regional water availability decisions?*

   - Land cover information and yield
   - Quality of water and recharge
   - Water footprint (UNESCO) of specific products
   - Virtual water – trade of water-intensive products
   - Environmental indicators
   - Characterize quality and quantity of non-traditional supplies. Switch over lesser quality areas to other uses
   - How is reuse accounted for consistently?
   - Data needs from one state to another will be different
   - Change in ground water storage

- Drought information – Palmer Index
- Distribution of non-aquatic ecosystems – those that are terrestrial, but require water -- riparian
- State/federal endangered species
- Infrastructure (ASCE scorecard)
- Expectations of consumers – often water is allocated based on per capita consumption – broad inequity.
- Regional isopleth maps

3. *What are the appropriate spatial and temporal scales for such an effort? How can we best design the study to provide information useful at the national, regional, and State scales?*

    - From Corps perspective – watershed scale, not the state political boundaries
    - FEMA is wrestling with this now – county level now due to national flood insurance program; may have to do one way and report out another way – have flexibility in accommodating this
    - Charlie Hunsicker asked if the USGS has moved away from quad maps? Some counties use quad maps still. Eric Vowinkel commented that for mapping purposes, these are a product. For hydrologic studies, USGS does not use these maps.
    - Bob Hirsch commented on the temporal aspect. We need to address how it differs today from yesterday, now compared to 100 years ago.
    - The longer the period, the more useful the study is. For example, groundwater data over a 30-year period tells more. Trends are more easily identified.
    - Need to answer questions such as – Are floods getting bigger? Are floods occurring more often? Are we seeing real changes in a flood-year? We need more continuous data for accurate data analysis.
    - Biological resources – There are biological consequences due to the amount of water in a river.

4. *What information products would be most useful to report the results of the study?*

    You need a range of products for different audiences; from the mid-level manager, to scientists, public. Publications with nice pictures are appealing. For example, it was commented that Texas has 3 versions of their products – for the general public, managers, and a database.

5. *Are there collaborative opportunities to work with regional, State, and local water resources agencies in conducting the water census?*

    Rotational plan associated with NAWQA. Readiness, severity of the issues, stakeholders… The eastern portion of the United States is a fast-growing metropolitan area. Flint River -- Appalachicola Basin in Louisiana. Where will we get the most response from state and local governments? May need a design process for data formats. Let states know that they can use the data too. There is a need for studies near Boulder, Colorado – dry area. Mesh up with the IOOS areas and watersheds. Full cooperation of state, local, and federal agencies is critical when developing the water census for the next 10 years.

The design work team sees this process as a means of input.
Reference the Water for America website at http://water.usgs.gov/wsi/

Adjourn Day 1

DAY TWO – THURSDAY, FEBRUARY 21, 2008

Welcome and Review, Toni Johnson, ACWI Executive Secretary

ACWI Report: Subcommittee on Hydrology (SOH)

- **SOH Overview**, Steve Blanchard, USGS Chief, Office of Surface Water and SOH Chair *(Reference PowerPoint Presentation)*

  - Steve briefed ACWI on SOH activities and plans for upcoming work.
  - Steve discussed making data transmission more robust – GOES updates,

  Hydrologic Frequency and Analysis Work Group - Revisions to Bulletin 17B
  Will Thomas, Michael Baker Corp. and Assoc. of State Flood Plain Managers, Workgroup Chair

  - Will discussed the purpose and activities of the group
  - Reference web site for the group – publication information
  - Discussion of Bulletin 17B guidelines

  Hydrologic and Hydraulic GIS Applications Workgroup**,** William Merkel, USDA, Workgroup Chair
  - 10 members representing 10 different federal agencies
  - Discussed current and future activities
  - Planning for information exchange between agencies via questionnaire distributed to federal agencies
  - Webex type meetings

  Update on Satellite Telemetry Interagency Workgroup**,** Ernest Dreyer, USGS, Workgroup Chair

  ACWI Discussion and Response regarding SOH Activities

  Q: Question about GIS applications – open source vs. full version -- Are you working on the hydrologic data layer – blue-line layer? Are you working on the NHD?
  R: SSWD is working on the layers

  Q: Do you deal with geomorphic data / cross-sectional data?
  R: This has not been addressed. Is the SOS is dealing with this. Jerry Webb responded that no, they are not. It was noted that the hydrologic modeling group may deal with that the most.

  Q: Is there dedicated funding?
  R: Will responded that the activity is by USGS volunteers. There is no dedicated funding, thus, the guidelines are less stringent.

  Bob Hirsch commented on the work that is being done – paleofloods, historical floods, etc… this is based on estimating flood frequency at a gage site of which there are only about 7000. Has there been discussion about evaluating flood risks at ungaged sites?
  R: Will responded no. Since 1981, there has not been any research on this. There is a small report on-line that FEMA uses.

  Bob Hirsch commented on the history of flood damages in the US. The trend is upward in damages. Bob speaks to those in political positions about the science behind the issue – USGS, NOAA – in light of climate change and changes in urbanization. Cost is relatively small – keep the analyses up to date. Small investment compared to the damages seen when we have floods – also noted the security of levees – impact on flood frequency behind the levees – Corps. There are a host of questions that have had minimal attention in the past few years. It is an important

issue. Bob encourages the committee to bring to the forefront the importance of the science for flood studies.

Allyson Lichtenfels commented that in the middle of map modernization process, the scope of the study was adjusted. Challenges remaining are not small. There are constant updates. There is always science and methodology that is beyond what FEMA can put up. FEMA is hoping for the opportunity to do more.

CUAHSI is a sounding board for data exchange. They are helping to develop MOUs for getting data in. Bob Hirsch noted that through portal, CUASHSI has access to get USGS data – xml format. Also, Instantaneous Data Archive (IDA) – 15-minute data is valuable. The IDA has a billion and a half values in it for streamflow. When complete, with historical data, there will be a couple billion values available, and will be available as a web service through CUAHSI. The process is proceeding, and Bob encourages other agencies that are major data holders work with CUAHSI as well.

Bob mentioned the GOES back-up system, acknowledging the USGS and NOAA investments in this system. Planning a public event at the start of hurricane season to publicize the importance of real-time data transmission and the importance of two areas receiving the data so it is available when needed. Backup is in Sioux Falls, SD. Important data delivery system for hazards information.

Panel Discussion: National Streamgaging Programs – National Streamflow Information Program (NSIP) and Cooperative Water Program (CWP) and Stakeholder Input

(Reference PowerPoint Presentation)

- ***Introduction and Loss of Essential Streamgages,*** Peter Evans, Interstate Council on Water Policy (ICWP)

  Peter commented that the committee has spent a lot of time looking at streamgaging programs

- ***Regional Stakeholder Meetings and Recommendations,*** Sue Lowry, Wyoming State Engineers Office, ACWI Rep for ICWP

- ***Assessment of Data Gaps Affecting Western Watershed Planning***, Barney Austin, Texas Water Development Board and ACWI Rep for Western States Water Council

  "Water Needs and Strategies for a Sustainable Future" (Report)

  - Barney discussed tasks and participants
  - Highlighted gaps in water data – reference slide

  Peter Evans made the comment to refer to the stakeholders letter to Congress regarding increasing stramgage funding --almost 40 organizations. Peter's understanding is that the Cooperative Water Program burden would be alleviated if NSIP were fully funded. If we look at where the needs are, perhaps there could be increased science.

  Q: Has the value of the data to the user, the download, been investigated? Who is using the data?
  R: Bob Hirsch responded that the issue has been researched. Recently, the National Hydrologic Warning Council published 2 reports about the benefits; these did not use a dollars/cents analysis.

  Bob Hirsch commented that those who can communicate the direct impact of flooding can influence funding.

FEMA often receives questions about the benefits of their flood mapping modernization. FEMA hopes to be able to capitalize on the action. Those that take the action need to be the ones to speak up.

Ward Staubitz commented that we have made improvements in technology and efficiency with data collection. In working with others to share costs, not as much progress has been made. Have lost 25% of staff in the last few years, but maintain same number of gages – thus an indicator of working in a more efficient manner. What is required to keep the gaging network going? Would it be successful for USGS to "farm out" data collection to cooperators and USGS ensure accuracy.

Reference the National Streamflow Information Program website.

Doug McLaughlin commented on increasing the pool of cooperators; for example, the Kansas Water Science Center has spearheaded the effort to develop correlations to expand the types of information available using statistical relationships. Second, they are taking information from gaged locations and expanding to ungaged locations. This could potentially expand the number of users. How much have these issues been discussed? Is there the potential to increase financial support if this were done?

Yes, This has come up in stakeholder workshop meetings.

- USGS Response
  - Robert Hirsch, USGS Associate Director for Water
  - Mike Norris, USGS NSIP Coordinator
  - Ward Staubitz, USGS CWP Coordinator

ACWI Discussion and Response regarding NSIP

Guest Speaker: The Secure Water Act, Michael Connor, Counsel for the Committee on Energy and the Environment

For more information, refer to the following web site:
http://aquadoc.typepad.come/waterwired/2007/10//secure-water-ac.html

ACWI Report: The National Water Quality Monitoring Network for U.S. Coastal Waters and their Tributaries (Network)

- **Refinements to the Network Design,** Charles Spooner, EPA Co-Chair of the National Water Quality Monitoring Council (NWQMC) and Network

  (Reference PowerPoint Presentation)

- **Summary Report with Highlights from the Pilot Studies (*Delaware Bay, San Francisco Bay, Lake Michigan),*** Gail Mallard, USGS Co-Chair of NWQMC and Network

  (Reference PowerPoint Presentation)

  - Pilot Study Reports are available online.
  - Gail provided a brief history of the NMN
  - The initial design of the network will now have a second edition – to include results of pilot studies – reports are available on-line.
  - ACWI recommendation was to refine the design. This was accomplished with pilot studies – selected were Delaware Bay, Lake Michigan, and San Francisco Bay
  - Learned that we need flexibility
  - Phase 3 will include demonstration projects and will require new monies

- Phase 4 – monitoring implementation – fill gaps and provide enhancements
- FY08 plans – improve data sharing capabilities, add gaging stations and/or data collection for network estuaries, begin to fill gaps identified by pilot studies
- Rivers will be added to the NASQAN program – Lower Mississippi, Hudson, Delaware, Brazos, Apalachicola, Connecticut
- Gail discussed individual plans for the pilot studies – the details were worked out between pilot study partners and USGS
- We need to get a report to CEQ
- ACWI acceptance of the pilot report is necessary so the report can be forwarded on

ACWI Discussion and Response on the Network

Q: How do you move from pilot studies to demonstration studies?
R: Resources. Pilot studies were carried out by volunteers. The demonstration phase has been described as the phase where new data would be collected, add additional studies to areas. These things require new data collection and money.

Q: Is it for ACWI to determine that you move forward to demonstration studies?
R: Yes.

Bob Hirsch responded that they are moving and he doesn't want to get in the way. Gail responded that the pilots have done all that they have been asked to do, and they are requesting more specific studies be done – finer detail. Bob responded that there is a small amount of money going to the pilots for them to proceed. Will need to address how larger scope studies will be funded.

Q: Question about funding.
R: Gail responded that there is on-going work. Partners in the study areas have provided estimates about the costs involved.

Q: Are these annual costs?
R: Yes. Chuck pointed out that USGS can help keep the momentum going, but ACWI must remember that these 3 groups are only part of a group of 10-12 that expressed an interest. Think of this as a group of 10-12 watershed areas that have an interest in this. Over time, there will be progress.

Bob Hirsch commented that this is a good news report. There is strong support for the work that is going on. The upcoming change in administration may have some influence. Having plans in place will help keep the momentum going. Gail noted that there will be upcoming opportunities to discuss this with CEQ..

Guest Speaker: The Secure Water Act, Michael Connor, Counsel for the Committee on Energy and the Environment

Reference: http://aquadoc.typepad.com/waterwired/2007/10/secure-water-ac.html

Mike noted that ACWI has a key part in parts of the Secure Water Act Bill.

The genesis and goals of the bill illustrate the importance of the work that has been done in the water community. The Bill's initial genesis was Senator Bingham's interest in climate change and its impacts. He and Senator Spector introduced several pieces of legislation this session.

The goal of the legislation is to try to have a complementary set of data to match up to other data.

In June 2007 oversight meeting on impacts. The Bill was introduced in October 2007, and it has bipartisan support. By the time there was a hearing in December, there was a fair amount of support on the floor. Mike gave kudos to Bob Hirsch and Bob Johnson, BOR for their testimony.

Designed to increase the number of streamgages each year over 10 years to reach the 4700 gages.

The overall goal is to move the legislation out by April. It is expected that after the recess there will be a good piece of legislation to move forward. The science will not change.

Challenges:

- FY2009 budget – overall hit to water programs; this budget represents a 26% cut compared to 2001 budgets. Only .88% of the overall discretionary budget.
- USGS – 8% cut

Some initiatives in the Secure Water Act – climate change – might help ensure funding support for water programs

Q: What is significance of discretionary spending?
R: Overall, discretionary funding is increasing, but water programs are taking a hit.

The issue has not risen to the level that the Federal government should be less involved. Raise the issue to folks – are they aware of what is going on with water resources? Is it important?

Q: Are there other ensured funding streams?
R: There are not for water science programs. We are trying to create this. With the farm bill, there is ensured funding. Not aware of any guaranteed funding sources.

Q: Bob Hirsch commented that a lot of the agencies at ACWI are interested in the language of the Bill. Can Mike give them a cut off for their comments?
R: Mike responded that comments should be received by the end of February.

Roundtable Discussions

- SOGW: Relationship of Ground Water Framework to National Monitoring Network
- NWQMC/MDCB: Network Refinements on Contaminants
- NWQMC: Other Network Refinements (e.g., Wetlands, Nutrients, Biology)
- MDCB: Special workgroups to assist with Network Implementation (e.g., Sensors; Statistics; Event, Continuous, and Realtime Monitoring)
- SWRR: Refinements to Sustainability Indicators/Criteria

Methods and Data Comparability Board (MDCB), Dan Sullivan
(Reference PowerPoint Presentation)
(Refer to http://acwi.gov/methods)

Dan updated the committee on NEMI

- Increased number of users
- Well-accepted tool
- New board member from Environment Canada – working on getting their information into NEMI
- New features and methods were highlighted
- Version 3.0 is almost ready for release

The WQDE report is available on-line or can be requested from Dan or Eric Vowinkel. Physical habitat data elements are complete – spent much time on spatial elements

The MDCB would like ACWI's approval, before the National conference, on Physical Habitat elements (April 2008); working towards a fact sheet and public web site for the conference.

MDCB wish list – update data elements report, workshop

MDCB – Future Plans – Eric Vowinkel
(Reference PowerPoint Presentation)

Eric discussed new directions for the MDCB – contaminants, sensors, statistical methods, events – continuous and real-time monitoring

- Will be putting out white papers
- Recruit new members at conference

Guest Speaker – Dr. Pete Schultz, The US Climate Change Science Program and the Water Cycle

(Reference PowerPoint Presentation)

Q: What does adaptation mean?
R: We are asking the NRC to tell us that. It can mean any number of things to different groups.

Q: Chuck Spooner commented that he did a Google search for climate change on mars. How has the climate change science program dealt with the changes we must get because we live close to the sun?
R: It begins with observations. Variations in solar irradiance are not capable with producing the changes that we are seeing. There is a magnitude of variation in difference. In order to get best possible reconstruction, it is important to include solar radiation. No indication that warming from 1976 on is due to increases in solar irradiance. A combination of observations and modeling are used.

Q: Bob Hirsch commented on flooding and flood hazards (inland flooding) and the empirical science and looking at models, what can be said about flooding?
R: This is not an area of expertise, but others report that flood risks are expected to go up (river flooding) – precipitation extremes associated with global warming should lead to more flashy times; ie. increased occurrences.

Q: On the energy front – ethanol has a larger footprint – much larger than gasoline. We have goals to produce more ethanol in the future. Where are we going? It sounds like we're increasing the carbon footprint?
R: This is not my area of expertise. We need to increase our collaboration in these areas to answer the questions, and to see what the broader implications are.

ACWI Update: Improved Access to Water Data through Web Services, Dwane Young, USEPA
(*Cooperative Effort among EPA/STORET and USGS/NWIS)*

Dwane communicated improvements in our data sharing. EPA and USGS are working together to develop a common suite of web services. EPA has available Web services and USGS is working toward making Web services available. A web service can be reused in multiple ways by any number of people. Example – Weather Bug.

ACWI Discussion and Response on Web Services

Public Comment Period under the Federal Advisory Committee Act (FACA)
Toni Johnson, ACWI Executive Secretary

Member Announcements and Comments

ACWI Report: Subcommittee on Sedimentation (SOS), Jerry Webb, U.S. Army Corps of Engineers and SOS Vice-Chair

- Overview and Status of SOS

ACWI Discussion and Response on the SOS

ACWI Report: Sustainable Water Resources Roundtable (SWRR)

- ***Refinements to Criteria and Indicators***, Robert Goldstein, Electric Power Research Institute
- ***Next Steps for SWRR,*** Ethan T. Smith, Retired and SWRR Coordinator

ACWI Discussion and Response on the SWRR

Review of ACWI 2008 Actions, Toni Johnson, ACWI Executive Secretary

ADJOURN ACWI 2008

With sincere thanks to our Representatives, Alternates and Guests for a successful ACWI Annual Meeting!