

**MEETING OF  
ADVISORY COMMITTEE ON WATER INFORMATION'S (ACWI'S)  
SUBCOMMITTEE ON HYDROLOGY (SOH)**

**9:00 AM – 12 Noon**

**October 8, 2009**

*North Penthouse Suite, Department of Interior Building  
1849 C Street, N.W., Washington DC 20240  
Enter from E St Entrance*

**FINAL MINUTES**

**AGENDA**

- |   |                 |
|---|-----------------|
| 1. Welcome and Introductions  | Steve Blanchard |
| 2. Review and Approval of Agenda  | Steve Blanchard |
| 3. Approval of Minutes from July 7, 2009 Las Vegas Meeting  | Steve Blanchard |
| 4. Status of Action Items from July 7, 2009 Meeting   | Steve Blanchard |
| 5. Update on SOH Membership   | Steve Blanchard |
| 6. Presentation by Ted Engman (NASA) <i>“UNESCO/ WMO ‘HELP’ program which is a program to establish a global network of catchments to improve the links between hydrology and the needs of society”</i> (Presentation followed by Q&A - total 30-40 min.) |                 |
| 7. National Hydrologic Information System (HIS) development and SOH effort and proposal for a new Water Data Work Group under SOH   | David Goodrich  |
| 8. Update on Hydrologic Modeling Work Group   | Don Frevert     |
| 9. Update on Hydrologic Frequency Analysis Work Group   | Will Thomas     |
| 10. Update on Hydrologic and Hydraulic GIS Applications Work Group  | William Merkel  |
| 11. Update on Extreme Storms Work Group   | Tom Nicholson   |
| 12. Current Events within Hydrologic Communities  | All             |
| • National Hydrologic Warning Council Activities – Gene Stallings   |                 |
| 13. Announcements and Q&A on Business Reports from Member Organizations   | All             |
| • <i>“The SOH CONNECTIONS” Newsletter Editor’s Report</i>   |                 |
| ○ Claudia Hoeft (USDA) Editor and Richard Raione (NRC) Co-Editor  |                 |
| 14. New SOH Chair and Vice-chair  | Steve Blanchard |
| 15. Plans for Next Meeting – January 2009   | Mary Greene     |

**Adjourn**

## SUMMARY OF THE MEETING

(Prepared by Mary Greene, USDA - NRCS – National Water and Climate Center)

### PARTICIPANTS

Martin Becker	Defenders of Property Rights (DPR) <i>(by phone)</i>
Steve Blanchard	Geological Survey (USGS)
Jill Caverly for Richard Raione	Nuclear Regulatory Commission (NRC) <i>(by phone)</i>
Michael Eberle	Bureau of Land Management –(BLM)
Ted Engman	National Aeronautics and Space Administration (NASA)
Don Frevert	Bureau of Reclamation (USBR - Retired) <i>(by phone)</i>
Mary Greene	USDA – NRCS – National Water and Climate Center (NWCC) <i>(by phone)</i>
Claudia Hoeft	Natural Resources Conservation Service (NRCS)
Victor Hom	National Oceanic and Atmospheric Administration (NOAA/NWS)
John Hunter	U.S. Army Corps of Engineers (USACE)
Douglas James	National Science Foundation NSF
Sam Lin	Federal Energy Regulatory Commission
William Merkel	USDA Natural Resources Conservation Service
Tom Nicholson	Nuclear Regulatory Commission (NRC)
David Raff	Bureau of Reclamation (USBR)
Gene Stallings	National Hydrologic Warning Council (NHWC) <i>(by phone)</i>
Nancy Steinberger	Federal Emergency Management Agency (FEMA) <i>(by phone)</i>
Will Thomas	Association of State Floodplain Managers (ASFPM) <i>(by phone)</i>
David Wells	Environmental Protection Agency (USEPA)
Don Woodward	American Forests

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**Meeting Highlights**

**1. Welcome and Introductions**

Steve Blanchard called the meeting to order at 9:04 AM (EST) and welcomed everyone. There were 20 participants including 6 attending via phone. Steve provided a brief history recording the meeting room. It was built in the 1930's under FDR as a radio Studio and served as the broadcast location for the, "Voice of America" for six years.

**2. Review and Approval of Agenda**

Approved with no changes.

**3. Approval of Minutes from July 7, 2009 Las Vegas Meeting**

Approved subject to receipt of Tom Nicholson's report

**4. Status of Action Items from July 7, 2009 Meeting**

Action items are complete with the exception of awaiting the PMP results.  
The ACWI 2010 Annual Meeting will be the second week in February

**5. Update on SOH Membership**

The Forest Service and Federal Highways have representation.  
Office of Surface Mining is still considering formalizing the designation of a replacement representative.  
TVA is expected to formalize their representation, they need to submit a letter which would be followed by a vote of the SOH membership.

**6. National Hydrologic Information System (HIS) development and SOH effort and proposal for a new Water Data Work Group under SOH David Goodrich**

This topic was discussed at length during the meeting.  
On 10/8/09, via e-mail, David Goodrich sent the Paper on, "Development of a Community Hydrologic Information System" that he noted in our meeting this morning. It provides important background for our effort in this area.

The next step involves David Goodrich developing the Terms of Reference for the new Workgroup for Data Exchange. David Goodrich - ARS will lead this effort and will contact David Briar – USGS, an NRC person, and a person from the Portland USDA/NRCS/ National Water and Climate Center - Mary Greene will be contacted to identify this person. He will have this available for our next meeting in January.

**7. Presentation by Ted Engman (NASA) on the UNESCO/ WMO 'HELP' program which is a program to establish a global network of catchments to improve the links between hydrology and the needs of society" (Presentation followed by Q&A - total 30-40 min.)**

## **8. Update on Hydrologic Modeling Work Group**

Don Frevert reported that preparations are on schedule for the second Joint Federal Interagency Conference – scheduled for June 27 – July 1, 2010.

A total of 132 oral presentations are scheduled for the Federal Interagency Hydrologic Modeling Conference with the same number scheduled for the Federal Interagency Sedimentation Conference. Additionally sixteen posters and ten demonstrations have been accepted on the Hydrologic Modeling side. Student participation has been encouraged and prizes will be given for the best student poster and the best student paper.

Five hydrologic modeling short courses will be offered before and after the conference including Curve Numbers, RiverWare, Curve Numbers, EXCEL-Lent Spreadsheet and Ground Water. Five sedimentation short courses will also be offered. Field Trips (including Hoover Dam, the Grand Canyon and other local attractions) will also be offered before the conference and social outings will be offered to spouses and participants during the conference.

Submittal of abstracts is now closed and authors have been notified of the status of their abstracts. The conference announcement is scheduled to come out November 1st. Papers will be due in draft form on December 1st, comments will be provided to the authors by January 1st and camera ready final copies will be due on March 1st.

Special thanks were expressed to Don Woodward for his work as technical chair and his support team.

It was also noted that the work group has been functioning without a vice-chair for about 18 months now and, while there will be no problem in putting on the 2010 conference it could become a serious problem at the end of 2010 when the vice-chair is scheduled to become chair. Member agencies were asked to look for volunteers who might be willing to serve as vice chair and step up to the chair's position at the end of 2010.

## **9. Update on Hydrologic Frequency Analysis Work Group**

Will Thomas reported that the next meeting of the Hydrologic Frequency Analysis Work Group (HFAWG) was planned for November 19, 2009 at Michael Baker's office in Alexandria, VA. He indicated the purpose of the meeting was to discuss tests comparing existing Bulletin 17B procedures with a new statistical procedure called the Expected Moments Algorithm (EMA) and to discuss other possible improvements to Bulletin 17B.

David Raff, Bureau of Reclamation, asked if the proposed changes to Bulletin 17B included addressing the issue of nonstationarity in flood data which he believed was a major issue. Will Thomas responded there were no plans to address the nonstationarity issue but that this issue will be discussed at the upcoming meeting. Will believes that flood data can be adjusted for nonstationarity and Bulletin 17B procedures used for flood frequency analysis.

Martin Becker questioned whether there was agreement on the issue of nonstationarity.

Nancy Steinberger, FEMA, commented that the nonstationarity issue is a larger or more complicated issue than incorporating EMA procedures in Bulletin 17B.

Mary Greene, NRCS, stated that the HFAWG should clarify the expectations of any revisions to Bulletin 17B and clarify what a revised document will accomplish.

Will Thomas, ASFPM, reminded the subcommittee that there is a document on the HFAWG web site (<http://acwi.gov/hydrology/Frequency/>) titled "Flood Frequency Research Needs and Bulletin 17B Possible Improvement Plans" that defines the scope of the proposed revisions to Bulletin 17B.

Don Woodward, American Forests, commented that the HFAWG was trying to make revisions to Bulletin 17B that required minimal resources (time and personnel).

## **10. Update on Hydrologic and Hydraulic GIS Applications Work Group**

William Merkel reported that teleconferences for Work Group members are held regularly. The last one was September 16, 2009 and the next one is scheduled for November, 2009. The teleconference minutes are posted at <http://acwi.gov/hydrology/h2gisa/>.

The overall purposes of the Work Group are to transfer technology among agencies and those outside of government and to promote communication among agencies with respect to use of GIS in water resources issues.

The current focus of the Work Group is to gather information (specific items listed in a questionnaire) for GIS applications in hydrology and hydraulics. Once this information is gathered, the plan is to post it on the internet for those individuals interested in learning about and downloading the various applications. There are currently 12 questionnaires received.

Dr. Vijay Singh maintains a list of hydrologic model contacts at Texas A&M University (TAMU). The web site for this is <http://hydrologicmodels.tamu.edu/>. A proposal from the Bureau of Reclamation for a CESU agreement with Texas A&M has been approved for \$20,000. The GIS applications in hydrology and hydraulics are now included in the web site.

There is a detailed plan of work for the graduate student at Texas A&M to conduct the project. This will include searching for additional GIS applications in hydrology and hydraulics. Enhancements to the web site will be ongoing over the next nine months.

Involvement with the upcoming 4th Federal Interagency Hydrologic Modeling Conference (June 2010) includes an oral presentation. The presentation will cover the activities and progress of the work group.

## **11. Update on Extreme Storms Work Group**

Tom Nicholson

Tom Nicholson indicated there is controversy between what the States and the Federal Government are doing. Many additional groups and consulting agencies are involved as well. There was much discussion and a standardization of the process and procedures was discussed. It was also mentioned that this might need to be a topic for the ACWI meeting in February 2010 to present a statement of needs. This will be discussed at our meeting in January.

## **12. Current Events within Hydrologic Communities**

### **Joint NRC/NOAA Seminar Series**

Write-up for Subcommittee on Hydrology newsletter, Mark McBride, NRC,  
October 7, 2009

A series of seminars on technical topics of joint interest has been initiated by the U.S. Nuclear Regulatory Commission (NRC) and the National Oceanic and Atmospheric Administration (NOAA). The first seminar was held on October 2, 2009 at the NOAA offices in Silver Spring, MD. Thirty people attended, about equally divided between the two agencies. NRC described its licensing process, and its safety and environmental concerns that overlap with NOAA's area of responsibility. Panels with NRC and NOAA participants discussed needs for, and availability of, coastal and marine products and services, and climate issues of mutual interest. Specific topics covered included, for example, sources of historical hurricane data, historical wind and storm surge, availability of ice effects data for the Great Lakes, revisions of probable maximum precipitation analyses, modeling of East Coast tsunamis, the state of the art of climatic predictions, and contacts for paleoclimatological studies. Additional seminars are planned for the next year on topics expected to include riverine and environmental hazards, data and design issues, and hazard coordination and warning services.

**13. National Hydrologic Warning Council Activities – Gene Stallings**

The National Hydrologic Warning Council is on the move. An Executive Program Committee (EPC) was formed at a strategic planning summit in August 2009 at Estes Park, Colorado. The EPC will have a structure that mimics all facets of a hydrologic warning system—from the hydrologic event that threatens people, to the warnings that go out and how to protect those people. The goal is to try to facilitate the coordination and cooperation of the many different levels of effort at the Federal, State, and local government levels along with academia and the private sector to try to share information within the large, but diverse hydrologic warning community.

There are seven areas of interest where NHC plays an active role. Hence, the EPC structure will be built around each of these areas (see list below). Each area of interest will be assigned a coordinator that will also be a member of the EPC.

- Hydrology
- Data Collection
- Modeling & Analysis
- Hazard Communication & Public Awareness
- Guidance & Standards
- Training & Professional Development
- Conferences

If you or one of your colleagues has an interest in participating in these new committees, please e-mail Brian McCallum, the EPC Chair, [epc@hydrologicwarning.org](mailto:epc@hydrologicwarning.org).

EPC updates will be provided in the next SOH CONNECTIONS.

If you, or your organization, are not currently a member of the NHC, please consider joining us. Information on membership policy and benefits can be found on our website at [www.hydrologicwarning.org](http://www.hydrologicwarning.org).

Gene Stallings, PE  
NHC Washington Area Consultant

**14. Announcements and Q&A on Business Reports from Member Organizations**

NOAA/NWS reviewed the highlights of their business report attached.

**15. “The SOH CONNECTIONS” Newsletter Editor’s Report**

Mary Greene reminded the Subcommittee that her duties as the SOH Connections editor were completed and that Claudia Hoeft (USDA) would assume the role of Editor and Richard Raione (NRC) would be the Co-Editor. All Newsletter correspondence should be directed to Claudia and Richard. Mary indicated she can always be copied to ensure the messages and material arrive. Mary also reminded all that this is the Subcommittee’s newsletter and that submissions and material are always needed and welcomed.

**16. New SOH Chair and Vice-chair**

Steve Blanchard announced Mary Greene and Claudia Hoeft had been elected as the next Subcommittee on Hydrology Chair and Vice-Chair respectively. The meeting was handed over to Mary Greene.

**17. Plans for Next Meeting – January 7, 2010, USDA in Washington, DC. Location details will be announced.**

**Adjourn**

**Action Items:**

- 1) Members send Mary any final revisions for the July Minutes
- 2) Work Group Chairs send Mary your reports for the October minutes
- 3) Members send Mary your Member Reports for the October Minutes
- 4) All send Claudia and Richard submissions for the Newsletter
- 5) David Goodrich to lead the development of the Terms of Reference for the new Workgroup for Data Exchange
- 6) Member agencies are asked to look for volunteers who might be willing to serve as vice chair for the Hydrologic
- 7) Modeling Work Group and step up to the chair's position at the end of 2010. Please contact Don Frevert.

## Member Business Reports

### FERC – Sam Lin

- D2SI met in late July with the National Dam Safety Review Board (NDSRB). FERC's is designated by Congress to be a NDSRB member which leads the Federal and State National Dam Safety Program. A primary focus of the NDSRB activities is to provide Federal assistance to the State dam safety programs, through funding grants, training activities and research.
- FERC Receives ASDSO National Award of Merit - On 9/29 the Association of State Dam Safety Officials (ASDSO) is awarding their National Award of Merit to the the Federal Energy Regulatory Commission's Dam Safety Program. The 2009 ASDSO National Award of Merit is ASDSO's highest award recognizing individuals or organizations which have advanced the dam safety cause nationwide.

### NOAA NWS Business Report - Victor Hom

#### 1. Enhanced Automated Flood Warning System (AFWS)

During the last quarter of FY09, NWS enhanced the display of information from the Automated Flood Warning Systems (AFWS). The new AFWS website provides an interface similar to many of the available features on NOAA's NWS Advanced Hydrologic Prediction Services (AHPS). The AFWS network, which is connected to numerous local flood-warning systems, integrates and shares real-time hydrometeorological data from over 1,700 sensors in 12 states. Evaluation of real-time precipitation observations as a percentage of NWS Flash Flood Guidance (FFG) is now readily accessible (e.g.

<http://afws.erh.noaa.gov/afws/index.php?gtype=precip&wfo=rlx>). Another feature, such as enhanced data tabulations per county, is also available for the 12 states (e.g.

<http://afws.erh.noaa.gov/afws/county.php?type=precip&wfo=PHI&state=34&county=027>). In addition, the redesign of the Automated Flood Warning System (AFWS) central data processing site allows ALERT data to be processed, provided to the NWS Advanced Weather Interactive Processing System (AWIPS), and displayed on the web more efficiently and effectively. For a copy of the AFWS user's guide, please refer to the weblink ([http://afws.erh.noaa.gov/afws/AFWS\\_End\\_User\\_Guide.pdf](http://afws.erh.noaa.gov/afws/AFWS_End_User_Guide.pdf)).

#### 2. New AHPS Flood Inundation Mapping Services

On Wednesday 30 September 2009, NWS provided the third series of AHPS flood inundation map libraries online, bring the total availability of inundation mapping services to 47 locations. NOAA partnerships with the Federal Emergency Management Agency, United States Geological Survey, and Lower Colorado River Authority have made it possible for the NWS to create 10 new flood inundation libraries for the Gulf Coast region. Users are able to view flood inundation maps for forecast river levels ranging from minor flooding through the largest observed flood on record on the web or download the flood inundation maps with associated geospatial data (e.g., kmz, shapefiles) through the AHPS webpage. This service is accessible via the pull-down tab on AHPS (<http://www.weather.gov/water>) or directly through the list (<http://www.weather.gov/ahps/inundation.php>).

#### 3. Resources for High Water Signs

NWS added a webpage on High Water Mark signs on Hydrologic Services Web portal to help raise awareness of flood risks at locations that have experienced flooding. The new web site identifies on a map current High Water Mark sign locations with a description and/or photo of the location. This was a grass-roots effort initiated by the Southeast River Forecast Center. Information about ordering a sign and High Water Mark toolbox is available at ([http://www.weather.gov/os/water/high\\_water](http://www.weather.gov/os/water/high_water)).

### USGS - Steve Blanchard

Dr. Marcia McNutt, currently president and CEO of the Monterey Bay Aquarium Research Institute, has been nominated by President Obama to be the next Director of the U.S. Geological Survey. Dr. McNutt's Senate confirmation hearing is October 8, 2009.