

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

**July 15, 2004**

**Room 581, Building 67 of the Denver Federal Center  
Bureau of Reclamation – Denver, CO**

**AGENDA**

1. Welcome and Introductions
2. Review and Approval of Agenda
3. Approval of Minutes from April 22, 2004 Meeting
4. Action Items from April 22, 2004 Meeting
5. Motions for ACWI Endorsing SOH's Proposal
6. Update on Committee Representation and Membership
7. Hydrologic Frequency Analysis Work Group Update
8. Hydrologic Modeling Work Group Update
9. Site-Specific PMP Study
10. Officers for FY 2004-05
11. Upcoming Report to ACWI
12. Announcements and Business Reports from Attendees
13. Other Business
14. Next Meeting
15. Adjournment

**SUMMARY OF MEETING**

**PARTICIPATING**

Don Woodward, American Forests  
Will Thomas, Association of State Floodplain Managers (by phone hookup)  
Martin Becker, Defenders of Property Rights (by phone hookup)  
Sam Lin, Federal Energy Regulatory Commission (by phone hookup)  
Joe Krolak, Federal Highway Administration (by phone hookup)  
Kevin Stewart, National Hydrologic Warning Council  
Jon Werner, Natural Resources Conservation services (by phone hookup)  
Tom Donaldson, National Weather Service

Jerry Webb, US Army Corps of Engineers (Jerry.W.Webb@HQ02.USACE.ARMY.MIL) (by phone hookup)

Don Frevert, US Bureau of Reclamation

Chris Knopp, USDA Forest Service (by phone hookup)

David Wells, US Environmental Protection Agency (by phone hookup)

Jim Renthal, USDI BLM (Jim\_Renthal@blm.gov) (by phone hookup)

Steve Blanchard, US Geological Survey (USGS) (by phone hookup)

Marshall Flug, USGS

*(Note: A total of 15 participated - five in person and ten by conference call; email addresses listed above are only for those first time attendees or new addresses for previous attendees)*

## **MEETING HIGHLIGHTS**

Don Frevert called the meeting to order at 9:30 a.m MDT.

### **1. Welcome and Introductions**

There were 15 participants representing 14 member organizations (of 17 including the inactive USDA/ARS).

### **2. Review and Approval of Agenda**

The order of original meeting agenda was adjusted and approved as listed above.

### **3. Approval of Minutes from April 22, 2004 Meeting**

The minutes of the April 22, 2004 subcommittee meeting have been posted on the subcommittee's website below. The minutes of the April 22, 2004 meeting were approved.

[http://water.usgs.gov/wicp/acwi/hydrology/minutes/SOH\\_minutes\\_042204.pdf](http://water.usgs.gov/wicp/acwi/hydrology/minutes/SOH_minutes_042204.pdf)

### **4. Action Items from April 22, 2004 Meeting**

**Action:** Don Frevert got and welcome aboard the new primary representative Jerry Webb with the Corps of Engineers and Jim Renthal with USDI BLM. Will Thomas stated that FEMA will not assign a primary representative until its several vacant positions are filled. (Efforts to invite ARS to rejoin the SOH activities: see Item No. 6 below)

## 5. Motions for ACWI Endorsing SOH's Proposal

Martin Becker and Will Thomas responded to Don Woodward's draft motion for ACWI endorsing SOH's proposal for funding NWS' precipitation frequency update work via emails. Martin's and Will's responses are included in Attachment 1.

After some discussion, it was generally agreed that a background document should be drafted – outlining the need for updating the precipitation frequency estimates, but not proposing who should do the work.

**Action:** Don Woodward will redraft the precipitation frequency statement and the motion for USGS' maintenance of the existing stream gaging program and e-mail both to the membership by August 20, 2004 for comments and concurrence.

**Action:** After concurrence by the subcommittee, Don Frevert will forward the statements to Toni Johnson for consideration by ACWI.

## 6. Update on Committee Representation and Membership

Sam Lin contacted ARS' Charles L. Walthall this May concerning ARS' inactive membership. Dr. Walthall represented ARS at our meeting of 1/10/02 at NWS. He forwarded Sam's invitation emails to his supervisor without response yet.

**Action:** Jon Werner will continue contacting ARS to see if they are willing to participate since what ARS does related to hydrology is of interest to other SOH members.

## 7. Hydrologic Frequency Analysis Work Group (HFAWG) Update

**HFAWG Activities:** Will Thomas reported that he had provided Carol Lewis, USGS with updated information on the membership of the HFAWG and she has made the necessary changes. Will Thomas, Michael Baker, Jr., is now the Chair of the HFAWG, and Ken Bullard, Bureau of Reclamation, is now the Vice Chair. Other changes included: Kevin Long replaced Mike Grimm as the FEMA representative, Greg Lowe (formerly with the Tennessee Valley Authority) now works for Michael Baker, Jr., Zhida Song-James (formerly with Dewberry & Davis) now works for Michael Baker, Jr.

The HFAWG has posted minutes for 6 meetings to date. Will Thomas indicated that he will provide Carol Lewis, USGS, the minutes of the July 24, 2003 and January 29, 2004 meeting for posting on the work group web site. Will Thomas also reported that the small task group working on regulated flood frequency guidance would meet sometime in the next month or so and that the full work group would meet in October 2004 one day prior to the Subcommittee on Hydrology meeting.

**Bulletin 17B Posted on Website:** Will Thomas asked Steve Blanchard, USGS, to give a status report on the scanning of Bulletin 17B references. Steve indicated that all USGS Professional Papers had been scanned and then other USGS reports, other Federal Agencies and non Federal reports and papers

would be scanned in that order. Since the USGS is scanning all their reports, it may take some time to complete the scanning of all the Bulletin 17B references.

Joe Krolak, Federal Highway Administration, offered to help with the scanning process. Will Thomas indicated that he would work with Joe to scan the non Federal papers since USGS had so many reports to scan.

Steve Blanchard reported that USGS has been working on scanning references to Bulletin 17 B. For the time being, USGS has established a USGS web page for Bulletin 17B and its references. As references get scanned, USGS will link them to the web page so the public can access them.

USGS has several of the references scanned and they are being posted ASAP. USGS has had a few minor technical problems but the public should see them posted very soon. The URL is:

[http://water.usgs.gov/osw/bulletin17b/bulletin\\_17B.html](http://water.usgs.gov/osw/bulletin17b/bulletin_17B.html)

There still remains an issue about copyrighted journal articles that are part of the references and getting permission to post them on the web and make them available to the public.

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

Don Frevert reported that the next Federal Interagency Hydrologic Modeling Conference will be held April 2-6, 2006 at the Silver Legacy Hotel in Reno, NV. The meeting will be held in conjunction with the Federal Interagency Sedimentation Conference. Announcements and Calls for Papers will be coming out later this year.

## **9. Site-Specific PMP Study**

Jerry Webb reported that the NWS has recently decided that they cannot maintain the expertise on staff to perform site-specific PMP or specialized storm studies in the future to support the Corps mission needs. This includes studies that were historically covered as cost-reimbursable using individual project funds. USACE has consistently used NWS to perform these studies for the Corps Dam Safety program and does not have in-house staff with the proper experience and training.

The current interim plan is to use the in-house USBR capabilities on a cost-reimbursable basis.

The long-term plan needs to provide for these services through a services agreement or through contracts with consultant engineers. There has been some discussion of putting together an interagency work unit that would scope and administer a national contract to provide these services to federal agencies. USBR and USACE have expressed interest. This matter needs to be discussed with NRCS, FERC, ASDSO and others that may need this capability in the future.

**Action:** Members should let Jerry Webb know how their organizations handle these issues.

In response to Jerry's report, Sam Lin reported that FERC recently has two projects' site-specific PMP studies in Maine and New York States which were done by a consultant and reviewed by a Board of Consultants. The NWS guidelines were followed for those studies by the consultant while the consultant applied some newly developed technologies to improve the level of reliability and accuracy of PMP estimates. FERC has an interest in receiving more information about the long term plan of PMP studies which Jerry mentioned.

## **10. Officers for FY 2004-05**

There was no new vice-chair nominated in response to Don Frevert's request during the April 22, 2004 meeting. As a result, Don agreed to stay on as chair through September, 2005 with Sam Lin as vice-chair. This was unanimously supported by those in attendance.

## **11. Upcoming Report to ACWI**

Don Frevert asked for contributions to the annual ACWI report from the task groups. The report will need to be presented at ACWI's September 14-15 meeting and the contributions will be needed by August 25.

**Action:** Don will take care of assembling and presenting the report.

Don also encouraged any interested SOH members to contact him about attending the ACWI meeting.

## **12. Announcements and Business Reports from Attendees**

### American Forests

Don Woodward had no new developments to report.

### National Weather Service

Tom Donaldson had no new developments to report.

### National Hydrologic Warning Council

Kevin Stewart reported that the Council is very interested in the work of ACWI as it relates to floods. The Council urges caution concerning recent suggestions aimed at replacing FEMA's 1% chance (100-year) flood regulatory standard with something more restrictive. Further investigation is needed to better understand where flood losses are occurring and why flood costs keep rising. The Council will participate in an ASFPM Foundation flood policy forum concerning this issue in Washington DC on September 21-22, 2004.

The Council may conduct an economic study to assess the value of streamgaging programs and in particular, the USGS National Streamflow Information Program (NSIP). A draft study scope is being developed for USGS consideration and grant funding.

### Bureau of Reclamation

Don Frevert reported that the USBR's Director of Research and Natural Resources position will be advertised shortly. USBR has been active in the ASCE Watershed Management conference which was scheduled for July 19-22, 2005 in Williamsburg, VA.

### FERC

Sam Lin reported that recently FERC had meetings with experts from NRCS and ARS to share their soil property and embankment dam overtopping failure research information. The purpose of those meetings is to understand what can improve FERC's current methods to determine the PMF and conduct an inundation study in case of a dam failure.

FERC's engineering guidelines as to infiltration loss estimate allow the use of the soils data available in NRCS' State Soil Geographic (STATSGO) or county based Soil Survey Geographic (SSURGO) database. The meeting with NRCS focused on how the soil data is properly used for engineering application, particularly in the hydrological analyses.

FERC requires dam breach analyses to determine a dam's inflow design flood (IDF) and to classify the hazard potential in the event of a dam breach. The ARS presentation introduced development and integration of the computer model components to predict embankment dam failure through a variety of field model tests. Those components describe the embankment breach process subject to overtopping during extreme flood flows.

### NRCS

Jon Werner reported that NRCS is now beginning to implement its reorganization of the Technology Support function for the agency.

Several of the New Assistant Chiefs have been named. They will oversee three regions of the US. Three National Technology Support Centers (NTSC) are being established at the corresponding three offices, EAST - Greens borough, NC, CENTRAL - Fort Worth, TX, and WEST - Portland OR. Directors have been named for those positions (William Puckett, Ron Williams and Bruce Newton respectively). Each NTSC will have a basic core group of technical and resource specialists. Each of the three regional offices will host 3 national teams.

West Region will host these national teams: Bio-Energy, Air Quality/Atmospheric Change and Water Quality/Quantity.

Central Region will host these national teams: Grazing Lands, Wetlands and Wildlife.

East Region will host these national teams: Animal Waste Utilization Technology, Soil Quality and Social Sciences.

The staffing should be complete by October 1, 2004.

#### US Army Corps of Engineers

Jerry Webb reported that USACE is in the process of implementing many changes in its organization in accordance with its Strategic Plan. The HQ has undergone a major realignment / reorganization which included some downsizing. The HQ is organized around its Civil Works and Military programs. Currently, there is a small group of individuals that have primary responsibility to support their respective communities of practice (CoP). Others are assigned to Regional Integration Teams (RIT) and provide support to their division offices.

Currently Jerry Webb is the primary leader of the H&H CoP and the Corps representative to the Subcommittee on Hydrology (SOH). The H&H CoP falls under the Chief, Engineering and Construction, Don Basham. Jerry has part-time support from two individuals that are assigned to RIT's. USACE will continue to participate in the SOH but limitations in resources may restrict the level of support they can provide.

#### USGS

Steve Blanchard reported that the USGS appropriations for FY05 have been marked-up by the House and Senate. The proposed USGS budget for FY05 for Streamgaging will be reduced by \$161, 000 or 1.1% and there is no funding increase to cover inflation costs. National Streamflow Information Program funding in FY04 is \$14,179,000 and is proposed to be \$14, 018, 000 in FY05.

In addition there is a decrease of \$733,000 proposed for the Cooperative Water Program that also funds many gages. The FY04 budget is \$63, 995,000 and is proposed to be \$63, 262, 000 in FY05.

As a result of these proposed budget reduction to the two primary programs that fund streamgages, we expect there to be losses of 10s to 100s of streamgages.

#### FHWA

Joe Krolak had no new developments to report.

#### Defenders of Property Rights

Martin Becker had no new developments to report.

#### Association of State Floodplain Managers (ASFPM)

Will Thomas reported that the ASFPM Foundation was sponsoring a session on "Reducing Flood Losses: Is the 1% chance (100-year) flood standard sufficient?" This Forum will be held at the National Academies Keck Center in Washington, DC on September 21-22, 2004 in collaboration with

the National Academies Disasters Roundtable. The purpose the Forum is to bring together leading experts in the field of flood policy and floodplain management to discuss and provide recommendations on pressing flood policy issues facing the nation. The Foundation's mission is to be an incubator for research and education to promote wise floodplain management. Questions and issues to be discussed at the September 21-22 Forum include: Historical perspective - how we got here - do we know more now than in the 1960's? Is the 1% standard working? How good is it? Has technology improved our predictions? What are the options to a 1% standard, or the application of the standard? Will Thomas reported that he was invited to the Forum to give a presentation on "Will the data support modeling for a new standard?".

#### USDI BLM

Jim Renthal had no new developments to report.

#### US Environmental Protection Agency (EPA)

David Wells had no new developments to report.

### **13. Other Business**

None.

### **14. Next Meeting**

The SOH next meeting was scheduled for 9:30 am, Thursday, October 14 the Federal Highway Administration Offices – 400 Seventh Street, SW in Washington DC.

**Action:** Those members planning to attend should confirm their attendance with Joe Krolak (with a cc to Don Frevert) as soon as possible. Any member who would like to suggest an afternoon presentation or tour should contact Don as soon as possible.

### **15. Adjournment**

The meeting was adjourned at 11:15 p.m. MDT.

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## **Appendix I. Funding NWS for Rainfall Frequency Estimates**

**IA: A Motion Draft from SOH to ACWI** (drafted by Don Woodward by email of 7/12/04)

ACWI MOTION FOR PUBLICATION OF PRECIPITATION FRQUENCY INFORMATION

## Motion:

Whereas the precipitation frequency estimates published by NOAA's NWS are in urgent need of updating. ACWI strongly recommends:

1. That publication of updated precipitation frequency estimates is in the national interest.
2. That NOAA's National Weather Service be should be the agency responsible for preparing such estimates.
3. That agencies and organizations that use such estimates or regulate based on such estimates provide necessary funds to undertake the revision of the existing precipitation frequency atlas.
4. That funding of this effort be coordinated by NWS with the help of ACWI

## Background:

SOH has discussed this issue and urges ACWI to endorse the proposal.

Engineers use probabilistic estimates of rainfall depths and intensities for the design of a wide range of structures from urban storm water drainage systems, and highway bridges, to dams and spillways. More recently their use has extended beyond the realm of engineering to include a broad array of environmental management and analysis concerns such as in-stream ecosystems, stream based pollution discharge and flood plain analysis. These probabilistic estimates are the basis for regulation by many Federal, state and local agencies. The accuracy of the estimates impacts expenditures of billions of dollars each year by all economic sectors.

Rainfall frequency atlases and technical papers published by the National Oceanic and Atmospheric Administration's (NOAA) National Weather Service (NWS) funds provided by several federal agencies have served as defacto national standards for over 50 years. Current precipitation frequency estimates date from 1961 in the eastern U.S and 1973 in the west.

In 2003/4, NWS published 2 volumes of NOAA Atlas 14 updating previous estimates for 17 states in the semiarid southwest and the Ohio River basin and surrounding states. These new peer reviewed updates are based on vastly improved data records and state of the art statistical and geographic techniques, providing a new level of reliability and accuracy. Spatial interpolation down to several miles allows designers and planners to reflect local climate conditions and optimize the cost/risk tradeoffs.

NOAA Atlas 14 estimates are available on the Internet in through a convenient point and click interface that has received high praise from the user community. This new approach to delivery eliminates the cost of publishing and selling hard copy documents and provides a fast, efficient, and readily available way for engineers and planners to obtain the information.

Studies have indicated that with the new procedures and standards the existing precipitation maps does not reflect the current situation in many sections of the United States. The new procedures have also allowed NWS to provide additional information that is utilized by engineers such as confidence limits on the estimates, new temporal distributions and soon to be published updates to areal reduction factors.

Some organizations have completed revised precipitation frequency information for their area of interest. None of these studies have been coordinated across the study area boundaries and they use a variety of different procedures for data quality control and analysis. There is strong and important need to present a coordinated study for the entire United States using standardized procedures to ensure consistency and equity and to provide reliable design standards.

A full national update is expected to cost \$1M per year for four years with shared contribution from five to six Federal agencies. Of those costs, roughly 40% is devoted to data quality control and 60% to analysis.

### **I.B: Comments from Martin Becker and Will Thomas**

>>> "Wilbert Thomas" [WTHOMAS@mbakercorp.com] 07/15/2004 >>>

Subcommittee members:

I am not as concerned about OMB Circular A-76 as Martin is but it seems the "Motion" circulated by Don Woodward is not what we agreed to at the April 22, 2004 meeting. Our task was to produce two resolutions that endorse the updating of TP-40 and other precip atlases and also endorse the maintenance of the existing stream gaging program. I think the emphasis was supposed to be on the value of the work and not on funding or who would do the work. I know that Geoff wants and needs funding to do this work but the "Motion" seems to violate the guidance we got from Toni Johnson that is given in the April 22 minutes.

I think we need to delete the 4 motions but keep the background information with some modifications. There is some value in the SOH sending a resolution to the ACWI describing the background for both initiatives. This information could then be forwarded to the ACWI member organizations and they would become more aware of the need for funding for both efforts. Then NWS or USGS could contact the ACWI organizations for actual funding. This is what Toni Johnson previously advised.

Does this make sense?

I know a lot of people will not see this before the meeting but those calling in will have access to their email.

Will Thomas

>>> "martin becker" <martin\_becker@prodigy.net> 07/13/2004 3:37:18 PM >>>

All,

I strongly recommend that the attached motion not be considered at Thursday's meeting and that it not ever be considered by the SOH until parts 2 and 4 of the motion are deleted and replaced with an adherence to OMB Circular A-76. Although the NWS has had approximately six Months to address

the A-76 issue, it has not. Furthermore, I do not believe the SOH has the authority to address a motion that is in conflict with A-76 or any other OMB Circular.

Since the motion is reportedly being put forth to help persuade several agencies to fund the project, I request that those agencies provide their current position on the funding issue at the meeting and whether a passage of the proposed resolution would change their position.

I am confident that the work that is being proposed by the NWS will still be done - albeit probably by someone other than the NWS.

Thanks,

Martin Becker