

Newsletter of the Subcommittee on Hydrology

available on-line at: <http://acwi.gov/hydrology/index.html>

In this Issue:

[Welcome from the Chair.....1](#)[About the Subcommittee On Hydrology..... 2](#)[Highlights from the June 2009 Meeting..... 2](#)[Highlights from the October 2009 Meeting . 2](#)[JFIC NEWS: Proposed Short Courses.....3](#)[Work Group Reports .. 3](#)[Extreme Storm Events Work Group. 3](#)[Hydrologic Frequency Analysis Work Group 3](#)[Satellite Telemetry Interagency Work Group 3](#)[Hydrologic & Hydraulic GIS Applications Work Group.....3](#)[Hydrologic Modeling Work Group 4](#)[JFIC NEWS: Exhibits and Displays..... 4](#)[Special Notice 5](#)[News from Member Organizations..... 5](#)[Upcoming Conferences and Calls for Papers .. 7](#)[For your Information .. 8](#)[Upcoming Meetings .. 9](#)[Editor's Corner..... 9](#)

Welcome from the Chair

It is hard to believe that my two-year term as Chair of the Subcommittee has passed so quickly. It has been a great privilege and pleasure to serve as Chair and to work alongside all of the excellent Work Group Chairs and Subcommittee members in carrying out the mission of the Subcommittee. The Work Groups are very active and have accomplished much in the last two years.

The Hydrologic Frequency Analysis Work Group is making great progress in testing and evaluating the Expected Moments Algorithm method for flood frequency analysis. The Work Group will meet in November to discuss the results of these evaluations.

The Hydrologic Modeling Work Group is busy planning the Joint 9th Federal Interagency Sedimentation and 4th Hydrologic Modeling Conferences to be held June 27 - July 1, 2010 at the Riviera Hotel in Las Vegas, NV. The Work Group has put together an excellent program of technical presentations and training courses. I strongly encourage anyone who might be interested to attend the Joint Conference.

The Hydrologic and Hydraulic GIS Applications Work Group collaborated with Texas A&M University to post a compilation of hydrologic and hydraulic GIS applications on a public web site. This can be found on A&M's Hydrologic Modeling Inventory web site at <http://hydrologicmodels.tamu.edu/>.

The Extreme Storms Work Group is wrestling with the need for updated precipitation frequency analysis information and a standardized method for determining the various measures of precipitation frequency. I particularly appreciate Tom Nicholson (NRC) for his service as the Interim-Chair of this Work Group.

The Subcommittee is considering forming an additional Work Group to focus on improving data exchange mechanisms between organizations that collect time-series hydrologic data. Terms of Reference are being developed and will be presented at the next Subcommittee meeting in January 2010 for further consideration.

The Subcommittee will be in good hands as Mary Greene (NRCS – Portland, OR) and Claudia Hoefft (NRCS – Washington, DC) take over the leadership reigns as Chair and Vice-Chair, respectively.

I encourage readers of this newsletter to check out the Subcommittee's web pages at <http://acwi.gov/hydrology/index.html> to keep up with the important work of the Subcommittee on Hydrology. I greatly enjoyed my term as Chair and look forward to continued participation in the Committee as a member.

*Steve Blanchard,
Chair, Subcommittee on Hydrology
USGS Office of Surface Water*

About the Subcommittee on Hydrology

The Purpose of the Subcommittee on Hydrology is "To improve the availability and reliability of surface-water quantity information needed for hazard mitigation, water supply and demand management, and environmental protection." All members who join the SOH share in and support this common purpose as a network to fulfill our mission as defined in the Terms of Reference.

The subcommittee is currently chaired by Mary Greene of the Natural Resources Conservation Service. Mary can be reached by phone at 503-414-3058 or by e-mail at: mary.greene@por.usda.gov.

Detailed information about the subcommittee can be found at: <http://acwi.gov/hydrology/>

The Subcommittee on Hydrology reports to the Advisory Committee on Water Information that operates under the Federal Advisory Committee Act.

[Back to Contents](#)

Highlights from June 2009 Meeting

The Subcommittee on Hydrology met July 7, 2009 in Las Vegas, NV in conjunction with the planning committee meeting for the 2010 Joint Federal Interagency Conference composed of the 9th Federal Interagency Sedimentation Conference and the 4th Federal Interagency Hydrologic Modeling Conference: <http://jfic2010.org/>.

Conference planning activities took center stage in lieu of the typical featured speaker. Meeting highlights included an update on the National Hydrologic Information System (HIS) development,

and the SOH effort by David Goodrich and preparations for the nominations and election of the new Subcommittee leadership team - Chair and Vice Chair. Member reports included information on the NWS development of the Community Hydrologic Prediction Service (CHPS), and their Integrated Water Resources Science and Services (IWRSS) Consortium. The USGS reported on the selection of Dr. Jerad Bales as the USGS Chief Scientist for Hydrology. The next meeting will be held on October 8, 2009 at Main Interior in Washington DC.

[Back to Contents](#)

Highlights from October 2009 Meeting

On October 8, 2009, the Subcommittee on Hydrology met in the historic North Penthouse of the Interior Department's Main Building in Washington, D.C. As we learned from our Chair, Steve Blanchard, this room was used as a radio broadcasting studio from which the "Voice of America" was broadcast for several years.

Ted Engman of NASA (retired) made a presentation on [HELP](#), a cross cutting and transdisciplinary initiative of the United Nations Educational Scientific Organization ([UNESCO](#)) led by the International Hydrological Programme ([IHP](#)). [HELP](#) provides a framework within catchments for scientists, stakeholders, managers, law and policy experts to come together to address

locally defined "water related issues" and an international a platform for sharing experiences across an international network of catchments

The [HELP](#) approach is to consolidate experimental hydrology to improve existing models while at the same time developing strategic and innovative science which builds on managers and policy-makers concerns.

Ted's presentation also included a brief report on the status of several of the [HELP](#) basins which are currently under study along with plans for future collaborative efforts.

More information on can be found at the by clicking the word [HELP](#) anywhere in this article.

[Back to Contents](#)

JFIC News Proposed Short Courses

The following short courses are proposed for the 2nd JFIC:

Hydrologic Modeling:

- RiverWare - An Overview for Managers
- Curve Number Rainfall-Runoff: Professional Application
- Variable-Density Groundwater Flow and Solute Transport Modeling using SEAWAT
- HEC-HEM and HEC-GeoHMS
- EXCL-LEnT Training for Water Managers

Sedimentation:

- Stream Restoration and Design
- SRH 2D (Bureau of Reclamation's two dimensional hydraulic and sediment transport model)
- Overview of Collection of Fluvial-Sediment Data
- Sediment Transport Modeling - Basic Principles and Data Needs for Modeling Sediment Transport
- Principles of Streambank Erosion, Modeling and Restoration

The complete list of short courses along with descriptions and instructor information will be included with the first conference first announcement due out November 1, 2009.

[Back to Contents](#)

Work Group Reports

Extreme Storm Events Work Group

<http://acwi.gov/hydrology/extreme-storm/index.html>

Information on the activities of the Extreme Storm Events Work Group can be obtained from Tom Nicholson. He can be reached by email at: Thomas.Nicholson@nrc.gov.

[Back to Contents](#)

Hydrologic Frequency Analysis Work Group

<http://acwi.gov/hydrology/Frequency/index.html>

Information on the activities of the Work Group can be obtained from Will Thomas. He can be reached by e-mail at: WTHOMAS@mbakercorp.com.

[Back to Contents](#)

Satellite Telemetry Interagency Work Group

<http://acwi.gov/hydrology/stiweg/index.html>

Meeting minutes and information on the activities of this Work Group can be obtained from Charles Allen. He can be reached by phone at: (208) 378-5189 or by e-mail at: cmallen@usbr.gov.

[Back to Contents](#)

Hydrologic and Hydraulic GIS Applications Work Group

<http://acwi.gov/hydrology/h2gisa/>

If anyone is interested in finding out what GIS applications are publically available for making hydrologic and hydraulic analyses, information has been posted on the internet.

Twelve GIS applications have been identified and information posted on the Texas A&M University Hydrologic Model Inventory. The web site is <http://hydrologicmodels.tamu.edu>. The web site includes a number of hydrologic models which have been placed in categories. One of these categories is GIS based models.

Information on each application includes contact, general description, data requirements, system requirements, and much more.

More detailed information on the Work Group can be accessed from the web site: <http://acwi.gov/hydrology/h2gisa/>

For information on the Work Group or to become a member please contact Bill Merkel by phone at (301)-504-3956 or by e-mail at: william.merkel@wdc.usda.gov.

[Back to Contents](#)

JFIC News Exhibits and Displays

The following information is provided for SOH member agencies and organizations wishing to have a self-supporting display in the foyer of the conference center at the Riviera during the JFIC.

- Each agency or organization is responsible for setting up and taking down their own display.
- Displays are to be put up on Sunday afternoon before the conference and taken down on Thursday as soon as the conference concludes.
- There will be no cost to have a display, however, neither power nor tables will be provided.
- Contact Doug Glysson via e-mail at gglysson@usgs.gov with a cc to Don Frevert (dkfrevert@netzero.net) if your agency or organization wishes to have a display and how much floor space is required.
- Doug will work with the hotel to try to secure enough space to accommodate all.

[Back to Contents](#)

Hydrologic Modeling Work Group

<http://acwi.gov/hydrology/Hydro-Modeling/index.html>

The preliminary program for the Joint Federal Interagency Hydrologic Modeling and Sedimentation Conference, scheduled for June 27th – July 1st, 2010 in Las Vegas is now in place.

Author notification is complete and the three tracks for Hydrologic Modeling are filled. A total of 88 abstracts for oral presentations were received. Another 44 water related abstracts are expected from the Sedimentation conference organizers. Additionally, 16 poster abstracts and 11 demonstration abstracts have been received.

Of the 16 poster abstracts, 10 are from students. A competition will be held for the best student poster and paper. The University of Arizona made a proposal to the National Science Foundation (NSF) to cover costs for student travel and awards. So far, about half a dozen requests for student support to attend the conference have been received. Criteria for receipt of student funding will be established in the coming weeks.

A number of short courses are also planned. See the sidebar article on page 3 for a list of those.

Doug Glysson provided a summary of upcoming deadlines:

- November 1, 2009 Send out the Announcement
- December 1, 2009 First draft of papers due
- January 1, 2010 Review comments on papers due to authors
- March 1, 2010 Camera ready copies of papers due

Committee members are asked to continue recruiting moderators and co-moderators.

The group is seeking a vice chair who will ultimately chair the group starting in the fall of 2010. Anyone willing to serve should contact Don Frevert at dkfrevert@netzero.net or, by phone at 303-989-4270.

The next conference call of the group will be Wednesday, November 4th at 1:00 Eastern Time.

Teleconference minutes and additional information on the activities of the Work Group can be obtained from Don Frevert. He can be reached by phone at (303) 989-4270 or by e-mail at dkfrevert@netzero.net

[Back to Contents](#)

SPECIAL NOTICE:

The following three ANS/ANSI standards related to surface water environmental and safety issues have lapsed into 'historical' status:

ANS 2.8 - Determining Design Basis Flooding at Nuclear Power Plants

ANS 2.13 - Evaluation of Surface Water Supplies for Nuclear Power Plants

ANS 2.18 - Standards for Evaluating Radionuclide Transport in Surface Water for Nuclear Power Plants

ANS is looking for experts to help revise/replace/update these standards.

If interested, please contact Lance Vail at lance.vail@pnl.gov or (509) 372-6237

*Submitted by:
Richard Raione, NRC*

[Back to Contents](#)

News from Member Organizations

National Weather Service (NWS)

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 at <http://www.weather.gov/water> or directly through the list <http://www.weather.gov/ahps/inundation.php>.

*Submitted by:
Victor Hom, NWS*

[Back to Contents](#)

National Hydrologic Warning Council

The National Hydrologic Warning Council (NHWC) 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 structure will mimic 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 coordination and cooperation among Federal, State, and local governments, along with academia and the private sector within the large, diverse hydrologic warning community.

The EPC structure will be built around each of these areas. Each area of interest will be assigned a coordinator that is a member of the EPC.

If you or one of your colleagues has an interest in participating in these new committees, please e-mail Brian McCallum, EPC Chair, at epc@hydrologicwarning.org.

If you, or your organization, are not a member of the NHWC, please consider joining. Information on membership policy and benefits can be found at: www.hydrologicwarning.org.

There are seven areas of interest where NHWC plays an active role.:

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

*Submitted by:
Gene Stallings, PE
NHWC Washington Area Consultant*

[Back to Contents](#)

Nuclear Regulatory Commission (NRC)

Joint NRC/NOAA Seminar Series

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 the 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 climate 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.

*Submitted by:
Mark McBride, NRC*

[Back to Contents](#)

Hydrology Research Workshop

The Office of Nuclear Regulatory Research (RES) will host a two-day workshop on hydrology research supporting the revision of Regulatory Guide 1.59, "Design Basis Floods for Nuclear Power Plants." The workshop will be held on Tuesday November 17, 2009, in room O-3B4, and Wednesday November 18, 2009, in room CSB-6B1 at the RES building at 21 Church Street in Rockville, Maryland. The workshop will run from 9:00 am to 5:30 pm each day. Participation by telephone is also available.

The focus of the workshop will be the technical basis for revising Regulatory Guide 1.59. Topics to be discussed will include revision of the guide in light of new flood science and analysis methods developed since 1977, when the guide was last published; revisions to estimates of probable maximum precipitation in the southeast; possible tsunami hazards along the east coast; modern methods of analyzing storm surge along the Atlantic and Gulf coasts; analyses of the effects of hurricanes and storm surges on structures; statistical analyses of hurricane winds; and climate change.

For additional information, contact RES's John Randall, john.randall@nrc.gov or at (301) 251-7456.

*Submitted by:
Richard Raione, NRC*

[Back to Contents](#)

Upcoming Conferences and Calls for Papers



American Water Resources Association 2009 Annual Water Resources Conference

Seattle, Washington
November 9 - 12, 2009

<http://www.awra.org/meetings/Seattle2009/>



Environmental Law and Education Center

Air Quality and Climate Change Conference

Portland, Oregon
March 11, 2010

<http://www.elecenter.com/conferences.htm>

WESTERN SNOW CONFERENCE

Western Snow Conference 2010 WSC Meeting*

Adaptive water management in a changing climate: data, products, and tools for practical application

Logan, Utah
April 19-23, 2010

<http://www.westernsnowconference.org/2010.html>

*In conjunction with the Utah State University Spring Runoff Conference
<http://wetwater.usu.edu/html/conference>



United Nations Framework Convention on Climate Change Climate Change Conference (COP15)

Copenhagen, Denmark
December 7-18, 2009

<http://unfccc.int/2860.php>



American Water Resources Association 2010 Spring Specialty Conference

Geographic Information Systems and Water Resources IV

Orlando, Florida
March 29-31, 2010

<http://www.awra.org/meetings/Florida2010/>



Joint Federal Interagency Conference on Sedimentation and Hydrologic Modeling *Hydrology & Sedimentation for a Changing Future: Existing and Emerging Issues*

Las Vegas, Nevada
June 27 - July 1, 2010

<http://www.jfic2010.org/>



American Meteorological Society 90th Annual Meeting

Weather, Climate, and Society: New Demands on Science and Services

Atlanta, GA
17-21 January 2010

<http://www.ametsoc.org/MEET/annual/index.html>

[Back to Contents](#)



Association of American Geographers 2010 ANNUAL MEETING

CALL FOR PAPERS:

Abstracts accepted August 10-October 28

April 14-18, 2010
Washington, DC

<http://www.aag.org/annualmeetings/2010/index.htm>

[Back to Contents](#)



WATERSHED
2010
Management Conference
Innovations in Watershed Management Under Land Use and Climate Change

ASCE - Environmental Water Resources Institute 2010 Watershed Management Conference

Innovations in Watershed Management under Land Use and Climate Change

Madison, Wisconsin
August 23-27, 2010

<http://content.asce.org/conferences/watershedmanagement2010/>

[Back to Contents](#)

For your Information

WestFAST

Nine federal agencies comprise the Western Federal Agency Support Team (WestFAST). The Bureau of Reclamation, U.S. Geological Survey, Bureau of Land Management, U.S. Fish & Wildlife Service, U.S. Forest Service, Natural Resources Conservation Service, Environmental Protection Agency, National Oceanic and Atmospheric Administration, and U.S. Army Corps of Engineers have signed a Declaration of Cooperation to provide assistance to the Western States Water Council (WSWC).

The WestFAST CY 2009 Work Plan emphasizes “proactive, voluntary, participatory and incentive based approaches to water resource management and conservation assistance programs throughout the Western States.”

The Work Plan provides federal assistance to WSWC to implement objectives outlined in *Water Needs and Strategies for a Sustainable Future: Next Steps*. To see the report, go to <http://www.westgov.org/wswc/water%20needs%20&%20strategies-6'08%20final.pdf>

For July 2009-June 2010, the WestFAST chair is Roger Gorke (EPA) (gorke.roger@epa.gov); the vice-chair is Ward Staubitz (USGS) (staubitz@usgs.gov).

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[Back to Contents](#)

Western States Water Council

At its 160th meeting July 17, 2009, WSWC named Tony Willardson Executive Director of the Council. Tony joined the Western States Water Council in 1979 and has served as Associate Director since 1983. Tony graduated from Brigham Young University with a BA in political science and an MPA from the University of Utah, with emphasis in policy analysis and natural resources. Tony is a member of the National Honor Society of Public Affairs and Administration (Phi Alpha Alpha) and the American Water Resources Association (AWRA).

The Western States Water Council is the primary water resource advisory body of the Western Governors' Association (WGA) and was created by them in 1965. WSWC members are appointed by each state's Governor and focus on the water issues of the West. WSWC seeks west-wide consensus on issues of mutual concern related to water.

WSWC meets three times each year and develops annual work plans to implement objectives in the WGA report, *Water Needs and Strategies for a Sustainable Future: Next Steps*. WSWC publishes a weekly newsletter. The latest edition is included at the end of the WestFAST newsletter. Subscription to the WSWC newsletter is \$100/year. Contact Julie Groat (jgroat@wswc.state.ut.us) for subscription.

For more information on WSWC, go to <http://www.westgov.org/wswc/>

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[Back to Contents](#)

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 web-link http://afws.erh.noaa.gov/afws/AFWS_End_User_Guide.pdf.

*Submitted by:
Victor Hom, NWS*

[Back to Contents](#)

Upcoming Meetings

Subcommittee on Hydrology:

January 7, 2010
9:00 a.m.

US Department of Agriculture
Washington, D.C.

[Back to Contents](#)

Editor's Corner

I want to thank the members of the Subcommittee on Hydrology for allowing me to serve as the Chief Editor of the SOH Connections newsletter the last 2 years. Each time we rotate the leadership, our new editors bring something new to the presentation and distribution of our information to one another and to the rest of the world.

It is with great pleasure that I pass the reigns to the newsletter over to Claudia Hoeft who has been diligent, capable and responsible for the publication of our newsletter since she became the Associate Editor. It has been a pleasure working with Claudia and I know that she and Richard Raione of NRC, our new Associate Editor, will do a fine job for the next two years.

One reminder to everyone, the newsletter is a dynamic medium enabling the transfer of information regarding the activities of our subcommittee to the water world. Each newsletter is unique to itself and dependent upon voluntary contributions from every subcommittee member. I encourage each of you to add your voice by providing information on the following types of activities:

1. Updates on activities occurring in your organization
2. Information and articles for public awareness
3. Information of value and interest to students
4. Titles, dates, and web-links for conferences and workshops.

If you have an interest in submitting material for the newsletter, contact Claudia or Richard. Many submissions make a great newsletter that is useful to many.

Best of luck to Claudia and Richard. I know they will do a great job and I am looking to the next newsletter.

Sincerely,
Mary Greene
NRCS

To submit items for the newsletter, please contact either Claudia Hoeft or Richard Raione.

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[Back to Contents](#)