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

9:00 am – 12:00 Noon (EDT)
April 30, 2009
Room 7000A, *Department of Interior Building*
1849 C Street, N.W., Washington DC 20240
Enter from E St Entrance

MINUTES

AGENDA

1. Welcome and Introductions — Steve Blanchard

2. Review and Approval of Agenda — Steve Blanchard

3. Approval of Minutes from January 29, 2009 Meeting — Steve Blanchard

4. Status of Action Items from January 29, 2009 Meeting — Steve Blanchard

5. Presentation by Steve Blanchard "*Overview and Status of the USGS Streamgaging Program*" (Presentation followed by Q&A - total 30-40 min.)

6. Update on Hydrologic Modeling Work Group *(by phone)* — Don Frevert

7. Update on Hydrologic Frequency Analysis Work Group — Will Thomas

8. Update on Hydrologic and Hydraulic GIS Applications Work Group — William Merkel
9. Update on Extreme Storms Work Group — Tom Nicholson

10. National Hydrologic Information System (HIS) development and SOH effort — David Goodrich

11. "Hydrologist for Tomorrow" — Martin Becker
    See NY Times Article for background
    (http://www.nytimes.com/2009/03/08/jobs/08start.html?_r=2&scp=1&sq=hydrology)

12. Current Events within Hydrologic Communities — All
    - *American Meteorological Society 2009 Forum on Public-Private Partnerships – Gene Stallings*

13. Announcements and Q&A on Business Reports from Member Organizations — All
    - *Report on the February ACWI meeting – SOH session* — Mary Greene, Steve Blanchard
    - *"The SOH CONNECTIONS" Newsletter Editor's Report*

14. Plans for Next Meeting – July 7, 2009 in Las Vegas — Steve Blanchard
    9:30 AM-12:00 PM Las Vegas time (12:30 PM – 3:00 PM Eastern time) at Riviera hotel; Call hotel at 1-800-634-6753 & request the group room rate for JFIC PRE_PLANNING COMMITTEE MEETING. The rate is the federal per diem rate. Cut off date is June 15, 2009.

Adjourn

SUMMARY OF THE MEETING

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

PARTICIPANTS

Martin Becker	Defenders of Property Rights (DPR) (*by phone)*
Steve Blanchard	Geological Survey (USGS)
Ted Engman	National Aeronautics and Space Administration (NASA) (by phone)
Don Frevert	Bureau of Reclamation (USBR - Retired) (*by phone)*
David Goodrich	USDA – Agricultural Research Service (ARS) (*by phone*)
Mary Greene	USDA – NRCS – National Water and Climate Center (NWCC) (*by phone)*
Steve Haley	American Forests
Claudia Hoeft	Natural Resources Conservation Service (NRCS) (by phone)
Victor Hom	National Oceanic and Atmospheric Administration (NOAA/NWS)
Sam Lin	Federal Energy Regulatory Commission
William Merkel	USDA Natural Resources Conservation Service
John Ostenberg	Bureau of Reclamation (USBR) (*by phone*)
Richard Raione	Nuclear Regulatory Commission (NRC)
Gene Stallings	National Hydrologic Warning Council (NHWC)
Nancy Steinberger	Federal Emergency Management Agency (FEMA) (*by phone*)
Will Thomas	Association of State Floodplain Managers (ASFPM) (*by phone*)
Jerry Webb	Army Corps of Engineers (USACE) *(by phone)*
David Wells	Environmental Protection Agency (USEPA)
Max Yuan	Federal Emergency Management Agency (FEMA) (*by phone*)

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Room 7000A, *Department of Interior Building*
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AGENDA

1. Welcome and Introductions — Steve Blanchard
   Steve Blanchard called the meeting to order at 9:05 AM (EST) and welcomed everyone. Each person introduced themselves and their organizational affiliation. There were 19 participants including 9 attending via phone.

2. Review and Approval of Agenda — Steve Blanchard
   Approved with no changes.

3. Approval of Minutes from January 29, 2009 Meeting — Steve Blanchard
   Accepted with minor modifications.

4. Status of Action Items from January 29, 2009 Meeting — Steve Blanchard
   All action items were completed.

5. Presentation by Steve Blanchard "*Overview and Status of the USGS Streamgaging Program*" (Presentation followed by Q&A - total 30-40 min.)

   Steve provided an informative and thorough history of the USGS Streamgaging Program . The PowerPont slides are available on the SOH website at: http://acwi.gov/hydrology/minutes/Streamgaging_Status_SOH-April30-2009.pdf. Copies of the Fact Sheet are available at: http://acwi.gov/hydrology/minutes/index.html.

6. Update on Hydrologic Modeling Work Group *(by phone)* — Don Frevert
   Don Frevert reported that the Hydrologic Modeling Work Group will meet by teleconference on May 12th at 3:00 pm Eastern Time. The top priority of the work group has been to get the word out about the 2010 Joint Federal Interagency Conference (JFIC) and to get abstracts coming in. Abstracts are due June 30th and Don requested that member agencies (both of the SOH and the HMWG) would redistribute the call for papers among likely participants on their respective staffs.

   A total of five hydrologic modeling short courses will be offered in conjunction with the JFIC on topics including curve numbers, the RiverWare modeling framework, the HMS series of models, the EXCEL-lent spreadsheet and groundwater modeling.

   Those planning to attend the July 7-8 meeting in Las Vegas can make their reservations on line. Anyone with questions about the reservation process should contact Don Frevert by e-mail - preferably by close of business May 7th.

   Don requested SOH members send the call for abstracts out again to their contacts, groups, and agencies. http://jfic2010.org/JFIC-Call-for-Papers-102808.pdf

7. Update on Hydrologic Frequency Analysis Work Group Will Thomas

Will Thomas reported that the Data Group (Martin Becker, Don Woodward, Jerry Coffey, Beth Faber and Will Thomas) had a conference call on April 22, 2009 to discuss the status of the EMA-Bulletin 17B testing. The Data Group decided that the full HFAWG should meet to discuss the status of testing and future directions. The following was proposed to the testing team of John England, Tim Cohn and Nancy Steinberger:

1. A one-day meeting (~ 9 am to 4 pm) on either June 18 or 19 in Alexandria, VA at Michael Baker's office (or some alternative date in June that is more appropriate).

2. The purpose of the meeting is to get a status report on the testing to date, to allow the testing team to present their work, for the testing team to get input and comments from the HFAWG, and determine future direction.

3. The testing team should provide EMA-Bulletin 17B "results to date" by June 5 for the HFAWG to review.

4. The testing results should include, at a minimum, a comparison of 1-percent chance flood discharges for EMA and Bulletin 17B for the 80 stations for the full period of record and "some" split sampling testing of observed data and a summary of existing Monte Carlo simulations that the team has performed (these would be published results to date).

5. A description of the EMA code and computation algorithms.

Will also reported that the ASFPM is drafting two letters in support of the update to Bulletin 17B and requesting that a dedicated budget be developed for this activity. ASFPM is concerned that the work of the HFAWG is progressing too slowly and that a dedicated budget will facilitate the update of Bulletin 17B. One letter is addressed to congressman on the House Appropriations Subcommittee on Interior, Environment and Related Agencies and one letter to the USGS. Both letters indicate that ASFPM believes the creation of a dedicated budget will ensure that work on this critical update is completed in a timely fashion. ASFPM believes that the update of Bulletin 17B will help ensure that the new maps published by FEMA delineating our nation's floodplains properly reflect the true risk of flooding.

Steve Blanchard commented that the USGS letter should go to Matt Larsen, Associate Director for Water.

Nancy Steinberger asked if the ASFPM letters are asking for a broad change in Bulletin 17B beyond what the HFAWG is proposing. Will responded that the ASFPM letters are relative to the changes that the HFAWG is proposing.

8. Update on Hydrologic and Hydraulic GIS Applications Work Group William Merkel Report to SOH from GIS Applications in H&H Work Group

April 30, 2009

Teleconferences for Work Group members are held regularly. The last one was March 3, 2009 and the next one is scheduled for May 5, 2009. The teleconference minutes are posted at http://acwi.gov/hydrology/h2gisa/ .

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/ for anyone who wants to see what models are listed and their contacts. 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 will be 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. Coordination between the student and the Work Group will be ongoing over the next year.

Involvement with the upcoming 4th Federal Interagency Hydrologic Modeling Conference (June 2010) was discussed. Involvement will include submitting an abstract for an oral presentation on the activities and progress of the work group.

9. Update on Extreme Storms Work Group — Tom Nicholson

Report of the Federal Work Group on Extreme Storm Events

The Federal Work Group on Extreme Storm Events held a teleconference on March 18, 2009. The featured speaker was Professor Daniel Cooley, Colorado State University who spoke on "Spatial Hierarchical Modeling of Precipitation Extremes from a Regional Climate Model" that had been previously presented at the Fall 2008 meeting of the American Geophysical Union in San Francisco, CA. The teleconference followed the agenda (see attachment #1). In attendance were Thomas Nicholson, USNRC, Interim Work Group Chair; John England, Reclamation, Work Group Vice-Chair, John Onderdonk, FERC; Doug Clemetson, U.S. Army Corps of Engineers, Omaha, NE; Robert Mason, U.S. Geological Survey; Gene Stallings, National Hydrologic Warning Council; and Nancy Steinberger, FEMA.

John England, Bureau of Reclamation discussed his research on updating PMP estimates for the Carolinas. He mentioned his need to review and scan the original storm data from NOAA/NWS as reported in the HydroMeteorological Reports (HMRs). He had discussions with Geoffrey Bonnin and Sanja Perica, NWS to visit their offices on March 1, 2009 to obtain, review and possibly scan the original storm data as reported in the HMRs.

Douglas Clemetson, U.S. Army Corps of Engineers's (USACE), Omaha, Nebraska Office briefly mentioned his development of a storm database for the Missouri River Basin, and his need to also review NOAA/NWS storm data.

Both John England and Doug Clemetson visited the NOAA/NWS offices in Silver Spring, Maryland on April 21 – 23, 2009 to obtain and review the data sources needed for their studies. John England and his Bureau of Reclamation colleague scanned raw data reports for tabulation and archiving as electronic files for future use.

Tom Nicholson scheduled the next teleconference for May 12th which needed to be rescheduled for June 2nd. Doug Clemetson will be the featured speaker to discuss "Cherry Creek PMP Issues." Attached is a tentative agenda for the June 2nd teleconference.

Agenda
Meeting of the
Federal Work Group on Extreme Storm Events

March 18, 2009, 11:30 a.m. EDST

Teleconference*

1. Introductions, Review Agenda and Report … Tom Nicholson, USNRC, Interim Work Group Chair

2. Briefing on *Spatial Hierarchical Modeling of Precipitation Extremes from a Regional Climate Model* (please see attached viewgraphs) ….. Professor Daniel Cooley, Colorado State University

3. Review summary of National Research Council *Workshop on Research and Applications Needs on Flood Hydrology Science* (please see NAS workshop notes) ……. John England, DOI/Reclamation and Tom Nicholson

4. Discuss PMP Research …. John England, Reclamation

5. Development of a National Database of Extreme Storm Events related to Flooding ..... ……. Douglas Clemetson, U.S. Army Corps of Engineers' (USACE), Omaha, Nebraska

6. Discuss Assistance by NOAA/NWS on Obtaining Extreme Storm Event Datasets … Geoff Bonnin, NOAA/NWS, John England, Reclamation and Doug Clemetson, USACE

7. Nominations for Chair and Election ……. SOH-Member-Designated Representatives

8. Proposed Date and Topics for next Work Group Meeting …… All Attendees

9. Adjourn

10. National Hydrologic Information System (HIS) development and SOH effort David Goodrich

Here are some key points on the progress of our CUAHSI HIS project during the last three months:

(1) **CUAHSI Program Office Renewal –** The National Science Foundation has renewed the functions of the CUAHSI Program office in Washington for 5 more years. This is a credit to Rick Hooper's services as CUAHSI's President during these years and to the many people who have worked with him to develop CUAHSI's mission of advancing hydrologic science. CUAHSI now has more than 120 universities as members. Two main priorities in the renewal phase are further development of the Hydrologic Information System and the fostering of a new mission called the Community Hydrologic Modeling Program (CHyMP) which aims to seek new shared platforms for advancing hydrologic modeling. The CUAHSI Program Office is adding a staff person to support use of HIS by the CUAHSI community.

(2) **HIS Desktop Development –** As indicated in my last report, the HIS team has started the development of a desktop client application that can work with WaterML web services from HIS Central and HIS Server, and can also ingest data about climate, GIS, modeling and remote sensing from web services or local files appropriate for those forms of information. We are using the MapWindow GIS developed at Idaho State University as our point of departure for HIS Desktop. The key idea of HIS Desktop is to be able to ingest, synthesize and transform hydrologic data to support analysis and modeling. A first prototype of HIS Desktop was demonstrated at the CHyMP meeting held in Memphis, TN, on March 31.

(3) **Texas HIS –** the water agencies of Texas, led by the Texas Water Development Board, have adopted the CUASHI HIS technology to build a state-level HIS for water data in Texas. Texas HIS presently contains 10 data services and indexes 24 million water data contained in 645,000 observations time series measured at 15,900 sites in Texas by federal, state and local agencies. The

Texas Natural Resources Information System is building a portal to access water observations and map information for the state, which is accessible at http://waterdatafortexas.org

(4) **Water Data Themes --** As part of Texas HIS, a new concept has been developed, that of a "theme" of water observations data where instead of indexing the observations collected on many variables by a particular agency, the observations data from all data sources for a particular variable, such as salinity, are gathered in one map – for each series, the WaterML address for the time series data is contained as an attribute of the spatial feature that specifies the location of measurement. This means that with two web services – a Web Feature Service in space that gives the locations and a WaterML service in time that gives the observations data, the temporal and spatial coverage of a particular class of data over a region can be specified. An example of a Salinity theme for Texas is shown in the attached slides where the size of the circles is proportional to the number of values measured at each location. This is the first step in the presentation of water observations using the method of thematic subdivision of subject matter typically employed in GIS, such as the land use theme, soils theme, etc. Similarly, it can be expected that in water observations data, we will have themes of observational data for precipitation, streamflow, groundwater levels, salinity, dissolved oxygen, nutrients, etc.

(5) **HIS Training Courses –** Tim Whiteaker of the HIS team is conducting HIS training courses in various parts of the country – on March 24-25 at Kansas State University, on May 27 at the University of Texas at Austin, and on June 3-4 at the University of Vermont, with later courses being discussed for North Carolina and Nebraska. At each of these courses, participants are introduced to loading local observations data into the CUAHSI Observations Data Model, making those data accessible through WaterML web services, and ingesting the results into Excel using a customized application called HydroExcel. The training course at Kansas State University was attended by 30 people from universities and state and local agencies in Kansas and was well received.

(6) OGC/WMO Working Group in Hydrology – the Open Geospatial Consortium and the World Meteorological Organization have together formed working groups to set data standards in hydrology and meteorology. The Open Geospatial Consortium is a group of about 400 companies and agencies that develops web services standards for geospatial data, such as the widely used Web Feature Service, Web Coverage Service and Web Map Service. The World Meteorological Organization and its Commission for Hydrology represent 188 countries and set data standards for international exchange of weather and climate data, and they are associated with the Global Precipitation Climatology Center and the Global Runoff Data Center, both located in Germany, which collect and publish precipitation and runoff data for the world. The association between OGC and WMO in these working groups mirrors the interaction between computer science and hydrologic science in the CUAHSI HIS project. OGC has Technical Committee meetings four times per year, twice in North America and twice in Europe, and these will likely serve as forums for debate and development of an internationalized version of WaterML version 2. The next Technical Committee meeting is scheduled for Boston on June 22-26 with more information at http://www.opengeospatial.org/event/0906tc . Ilya Zaslavsky and David Maidment visited the WMO in Geneva on April 24 to discuss these activities.

(7) During the SOH meeting discussion, Martin Becker raised concerns regarding CUAHSI identifying the quality and source of the data provided on the web site. This would enable the user to access valuable information to evaluate the applicability of the data to its potential use. This concern was echoed by other members of the SOH.

Dave Goodrich had a short follow-up call with Martin Becker and a more extended conversation with David Maidment regarding the questions that came up regarding data quality and attribution within the HIS (5/21).

David [Maidment] and his team noted that they get asked about this often and that he and his team will initiate development of an explicit statement/policy on the topic that will be more prominently displayed on the HIS web site.

11. "Hydrologists of Tomorrow" HOT Martin Becker
See NY Times Article for background
(http://www.nytimes.com/2009/03/08/jobs/08start.html?_r=2&scp=1&sq=hydrology)

Martin led a lively discussion. The SOH concluded that we should be encouraging students to partake in internships and other developmental activities and encouraging junior hydrologists to participate on committees and in organizations as well.

12. Current Events within Hydrologic Communities All

American Meteorological Society 2009 Forum on Public-Private Partnerships -Gene Stallings

I represented the National Hydrologic Warning Council (NHWC) at the 2009 American Meteorological Society (AMS) Public-Private Partnership Forum held on April 21-22, 2009 at the University of California-Washington Center in Washington, D.C. The purpose of the Forum is to provide an opportunity for weather and climate stakeholders to meet with senior federal agency officials and Congressional staff to hear the status of current programs, learn about new initiatives, discuss issues of interest to the group and to identify business opportunities. There were about 70 participants, which included AMS Corporate Members, private sector, federal agencies, laboratory managers, scientists, and academia. There was considerable discussion on the implementation of a National Climate Service, similar to the national weather Service. However, leadership of any climate group is unknown. One Panel stated that coordination between the Public and Private partners has never been better. Gene Stallings, PE NHWC Member

Western Snow Conference – Claudia Hoeft

Claudia and Mary attended the Western Snow Conference April 20-24 in Canmore, Alberta, Canada. Approximately 50 attendees from the Canadian and US government agencies and private corporations attended the presentations, discussions, and workshops on Snow Science and hydrology on topics including seasonal impacts of mountain precipitation, climate variability, Pine Beetle impacts, and managing snow retention via crops and field litter.

Interagency Water Cycle for Global Climate Change – Dave Goodrich

Dave reported that the Interagency Water Cycle for Global Climate Change building blocks document is available. Feedback will come from the Global Change Science Program Office. For more information visit the US Global Change Research Program website at: **http://www.usgcrp.gov/usgcrp/default.php**. "The Global Water Cycle Near-Term (Fiscal Year 2009) Plans – Highlights of Plans for FY 2009 is available at: **http://www.usgcrp.gov/usgcrp/ProgramElements/plans/waterplans.htm**.
And the "Highlights of Recent Research and Plans for FY 2009 – Chapter 3 – Global Water Cycle" is available at: **http://www.usgcrp.gov/usgcrp/Library/ocp2009/ocp2009-hi-water.pdf**.

NRC Public Outreach Meeting – Richard Raione

On April 23, 2009, the Nuclear Regulatory Commission (NRC) sponsored a public outreach meeting in South Florida. NRC staff provided information about the new reactor licensing process in anticipation of an application package to be submitted by the Florida Power and Light company (FP&L). More information can be accessed at NRC's website: www.nrc.gov

National Flood Conference – Victor Hom

Victor shared the highlights of the 2009 Annual National Flood Conference which took place from 4/19 to 4/22 in Boston. Details are provided below in the Member Business Reports.

13. Announcements and Q&A on Business Reports from Member Organizations All

Report on the February ACWI meeting – SOH session

Mary Greene reported the presentation to ACWI from the SOH was a result of the work group chairs providing material. It was very well received by ACWI. The Ground water Subcommittee expressed interest in working with us on various topics.

"The SOH CONNECTIONS" Newsletter Editor's Report

Additional submissions are still being accepted for the newsletter. Any items of special interest to hydrology students and junior hydrologists is requested.

14. Plans for Next Meeting – July 7, 2009 in Las Vegas Steve Blanchard
9:30 AM-12:00 PM Las Vegas time (12:30 PM – 3:00 PM Eastern time) at Riviera hotel; Call hotel at 1-800-634-6753 & request the group room rate for JFIC PRE_PLANNING COMMITTEE MEETING. The rate is the federal per diem rate. Cut off date is June 15, 2009.

Please let Steve and Mary know if you plan to attend in person or via phone.

Adjourn

Subcommittee On Hydrology Meeting April 30, 2009
Action Items

1. Don Frevert has requested all committee member resend the Joint Federal Interagency Conference *Call for Papers*. The committee requests abstracts be sent as soon as possible for planning purposes. Please see the website at: http://www.jfic2010.org/JFIC-Call-for-Papers-102808.pdf

2. Please send all workgroup committee reports to Mary and Claudia. They will be used for the minutes of this meeting and the next issue of the Newsletter. **Deadline: May 14, 2009.**

3. Please send all member reports to Mary for inclusion in the meeting minutes. **Deadline: May 14, 2009.**

4. Any news, internships, activities of interest or opportunities for Hydrology Students and Junior Hydrologists are to be encouraged. Please send notice of such events and opportunities to Claudia and Mary for inclusion in the newsletter. **Deadline: May 14, 2009.**

5. Please send any last minute inputs for the newsletter to Claudia and Mary immediately. **Deadline: May 14, 2009.**

6. **NEXT MEETING**: ***TUESDAY*** July 7, 2009 in Las Vegas, NV 9:30 – Noon Pacific time (Skybox 211). Riviera Hotel.

   Please, let Steve and Mary know if you are planning to attend in person or via phone. Call in details will be available prior to the meeting.

   HOTEL RESERVATIONS:

   To make hotel reservations, you can either wait for the on line registration to come up (which should be in about 2 weeks and will be located on our www.JFIC2010.org site) or you may call the hotel at 1-800-634-6753. Please request the group room rate for Joint Federal Interagency Conference (JFIC) PRE_PLANNING COMMITTEE MEETING. The rate is the federal per diem rate ($105 + 12% tax). If you are using your government credit card to confirm your reservation, you should not be charged until your arrival. Cancellation is 12 Noon (Pacific Time) 2 days prior to arrival **Cut off date is June 15, 2009.**

Member Business Reports for SOH Meeting April 30, 2009

FERC – Sam Lin

- FERC hosted a meeting for the National Dam Safety Review Board (NDSRB) Work Group on Emergency Action Plans (EAPWG) in March, 2009. The job of the EAPWG is to increase the number of EAPs at the high hazard potential dams in the United States. Of the 9,800 State regulated high hazard potential dams, 5,245 dams do not have EAPs. The EAPWG is comprised of Federal and State dam safety officials, local emergency managers, and FEMA representatives.

- In April, 2009 FERC attended the Spring Semi-Annual Meeting of the International Joint Commission (IJC) in Washington DC. The IJC is a bi-national organization established by the Boundary Waters Treaty of 1909 to prevent and resolve water quantity and water quality disputes along the boundary of the United States and Canada. FERC is on the International Niagara Board of Control and provides to the IJC a briefing on the issues involving the Niagara River.

National Weather Service - Victor Hom

NOAA NWS Business Report
April 2009

1. **NOAA Atlas 14 Volume 4: Precipitation-Frequency Atlas of the United States, Hawaiian Islands**

The estimates have been published through our **Precipitation Frequency Data Server** at http://hdsc.nws.noaa.gov/hdsc/pfds/

The release includes:

- precipitation frequency estimates
  - durations from 5-minutes through 60-days
  - average recurrence intervals 1-year through 1,000-years
  - confidence limits
- cartographic maps of select durations/frequencies: http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_maps.html
- GIS shapefiles: http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_gis.html
- the annual maximum series data used in the analysis: http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_series.html
- temporal distribution data: http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_temporal.html

Accompanying documentation describing the data, metadata and methodology in detail will be released in May 2009.

2. **NOAA NWS AHPS Flood Maps for Blanchard River at Findlay Ohio**

During this past quarter, USGS, NOAA/NWS, and City of Findlay, OH completed an interactive flood warning system that integrates the USGS streamgage, the NWS Forecast, USGS Flood Studies, and NOAA NWS AHPS Flood Maps. The announcement celebrating this achievement can be found at: http://www.usgs.gov/newsroom/article.asp?ID=2204.

The AHPS Flood Maps in association with NWS real-time forecasts is available at: http://newweb.erh.noaa.gov/ahps2/inundation/inundation.php?wfo=cle&gage=fdyo1

3. **National Flood Conference**

The National Flood Insurance Program (NFIP) and Federal Emergency Management Agency (FEMA) 2009 Annual National Flood Conference took place from 4/19 to 4/22 in Boston. NOAA National Ocean Service, National Weather Service, and United States Geological Survey held a workshop seminar on the importance of precipitation, streamgage, tide data, geodetics, lidar are to the Flood Insurance Studies which are the basis for the Digital Flood Insurance Maps (DFIRM), which the insurance industry depends on writing their flood policies. NOAA and USGS also had an exhibit booth to discuss NSIP, NWS AHPS, and NOAA NOS Coastal Program. Members of the insurance industry better understand the value and the importance of precipitation and streamgage data to the flood studies, used by NFIP to produce the DFIRM.

NOAA NWS Presentation on NOAA activities inter-related to NFIP is posted at:
http://apps.weather.gov/tempdocuments_ext/NWS_NFC2009_Hom_20090422_Final.ppt

USDA-ARS – David Goodrich

Agency representatives have been working closely with the Global Water Cycle Interagency Working Group (IWG) to provide input to develop research needs and goals via the U.S. Climate Change Science Program Building Block Series. Presently, this draft document, and all the other IWG building blocks ares being reviewed by the Climate Change Science Program Office (CCSPO) staff to perform a consistency check. If any recommended changes emerge based on this review, the IWG co-chairs will be notified and asked to consider amending the document. The CCSP Principals will receive the building blocks for the research elements and be allowed to review, comment, and share with their respective agencies. Any agency comments on individual building blocks will be reviewed and submitted back to the IWG co-chairs to consider. These revised versions will be packaged together and sent to OSTP for review, similar to the cross-cutting elements process.

USGS Business Report – Steve Blanchard

USGS Director – Suzette Kimball, the Associate Director for Geology at the USGS, continues to serve as the Acting Director for the USGS. The Secretary of Interior has not yet designated at nominee for the Director of the USGS.

USGS Recovery Act Funding - The USGS received $14.6 million to support the streamgage network. The funds will be used to upgrade streamgages with new communications technology that will provide more data, more frequently. High data rate satellite telemetry radios will be purchase and installed at approximately 2000 USGS streamgages. Upgrades will make data available to the public every hour, an improvement over the current wait of up to 3-4 hours.

The USGS also received $14.6 million to remove abandoned streamgages, groundwater wells, and cableways. The USGS often discontinues monitoring stations when funding for the site is no longer available from a cooperating organization. Once abandoned, a station may present a safety and health liability to the public.

New USGS Publication "National Streamflow Information Program, Implementation Status Report," U.S. Geological Survey Fact Sheet 2009-3020, by J. Michael Norris - the report is available on-line only at: http://pubs.usgs.gov/fs/2009/3020/

The U.S. Geological Survey (USGS) operates and maintains a nationwide network of about 7,500 streamgages designed to provide and interpret long-term, accurate, and unbiased streamflow information to meet the multiple needs of many diverse national, regional, state, and local users. The National Streamflow Information Program (NSIP) was initiated in 2003 in response to Congressional and stakeholder concerns about (1) the decrease in the number of operating streamgages, including a disproportionate loss of streamgages with a long period of record; (2) the inability of the USGS to continue operating high-priority streamgages in an environment of reduced funding through partnerships; and (3) the increasing demand for streamflow information due to emerging resource-management issues and new data-delivery capabilities. The NSIP's mission is to provide the streamflow information and understanding required to meet national, regional, state, and local needs.

Currently (2009), the NSIP is funded at about $22.4M. The complete program is estimated to require about $114 million per year. The majority of any new funds received will be targeted toward stabilizing and furthering the implementation of the streamgage network in support of the five critical Federal streamflow-information needs. The USGS will give a high priority to maintaining an awareness of, and attentiveness to, the needs and expectations of partner agencies, advancing technologies, and additional uses to which the streamflow information can be applied.