

**SUMMARY OF THE MEETING OF THE  
ADVISORY COMMITTEE ON WATER INFORMATION'S (ACWI)  
SUBCOMMITTEE ON HYDROLOGY (SOH)  
12:30 pm – 3:30 pm, Eastern Standard Time  
April 19, 2018**

**1. Welcome and roll call**

Siamak Esfandiary called the meeting to order at 12:30 pm and welcomed everyone to the SOH.

The roll call is included as Attachment 1. Eight SOH members were present at the start of the call. (More members joined later, bringing the total up to twelve, which was less than a quorum.) Members that were not represented during the meeting include: DOI - BLM, DOI – OSMRE, EPA, FERC, GEC, NHWC, TVA, USBR and USDA-ARS.

**2. Approval of the January 18, 2018 meeting summary**

Laura Chap emailed the draft summary to the group after the meeting, all edits were incorporated, and a revised draft was sent last week. Martin Becker made a motion to approve the minutes. Robert Mason seconded the motion. There were no objections and the motion passed.

**3. Status of action items from the January 18, 2018 meeting**

The low flow white paper was added to the agenda under new business. The governance call update was added as agenda item 8.

**4. New business**

*Low flow white paper*

Richard Vogel provided background on the progress of the proposed low flow working group. The idea began during his fellowship with the Institute for Water Resources; he gave a presentation to the SOH on October 19. He and Chuck Kroll prepared a draft white paper, which was circulated on April 17.

Rich provided a short summary of the white paper. Since the introduction of Bulletin 13, there have been updates through the current Bulletin 17C. There is no similar set of guidelines for low flows. The group would seek to catalogue standardized, proven approaches for management activities across all agencies. The white paper summarizes this more thoroughly.

Rich would like to request the SOH to convene a committee to draft new guidance. This should include representatives from various agencies. He would need the support from the subcommittee.

Siamak noted that the committee is very interested in this topic. It is important work. He thanked Rich for the paper.

Martin asked if the group would be limited to federal agencies? Rich replied that he would not limit it to federal.

Siamak said that later in the meeting the subcommittee would discuss how to form workgroups.

Rich concluded that he would look to committee for further input.

### *Dewberry membership request*

Siamak said that the process of approving Dewberry's membership request is not as easy as he thought. He personally thinks it is very important to have the private sector included. The process should be clarified on how to bring in a private organization as a voting member. This is different from active participation or participation in workgroups or providing a feature presentation. The original intent of the SOH membership policy was that private sector members would serve as representatives of national organizations. There should be a private sector presence. The SOH needs a process to decide which private sector entities to accept.

It was noted that Will Thomas represents ASFPM; ASFPM recommended Will as their representative.

Siamak said that we need to base on these decisions on a process, not previous actions or meeting minutes.

Martin commented that when private sector companies make a request, someone bills for that time. If the company is not allowing pro bono time, they will not make the request. Organizations like the National Wildlife Association, or the National Homebuilders Association are more likely to use their resources to lobby Congress rather than participate in committees.

Claudia Hoeft said that the process is to send a written request, two weeks prior to the meeting.

Tom Nicholson said he is not concerned with Federal agencies' contractors participating in SOH activities, but is concerned about them being approved as voting members of SOH. NRC staff is concerned about fairness; all private groups would need to be notified of the opportunity to become voting members if that decision would be made. The question needs to be vetted with NRC management and possibility with their ethics lawyers. He thought that the appropriate venue for making the decision on approving voting-rights membership should be ACWI.

Will believes this should be on a case by case basis. He agrees the subcommittee could get overwhelmed. Mathini Sreetharan has already applied for SOH membership for Dewberry per the terms of reference.

Claudia asked who is the representing their organization. Mathini responded that she would be the representative, Jason Giovannettone would be the alternate. Claudia would like to see the letter. It was sent April 12 and includes resumes for Mathini and Jason.

Robert said that Dewberry has complied, per the terms of reference.

Siamak said that these should be internal conversations. The SOH needs a process beyond sending a request.

Robert suggested that the committee separate the two issues. First consider Dewberry membership and work on clarification of the membership process. The committee could form an ad hoc group to work on the application for membership process.

Tom has reluctance to accept Dewberry or any private organization as a full member with voting rights.

Claudia would like to consider the implications.

Martin said that there is no quorum, so the SOH cannot vote.

Siamak agreed that not enough members were present to have a vote. He will solicit a vote before the next meeting. When the terms were written, the situation was different. We have some very capable entities.

Claudia disagrees, in that the SOH should distinguish capable individuals versus capable entities.

Tom said he is not questioning the competency of Dewberry. The problem is the relationship between private entities and the Federal government. NRC staff needs to be concerned that there are no unfair advantages for private organizations belonging to SOH concerning Federal contracts or guidance resulting from SOH decisions.

Siamak said we will have an ad hoc committee. He will solicit votes.

Will said that Dewberry or any private organization will have to participate on their own time, they should not be paid by FEMA or any other Federal agency.

Siamak said that the perceived conflict of interest needs to be discussed during an ad hoc meeting.

## **5. Feature presentation**

Robert introduced Jared Bales, executive director of the Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI). Prior to this role he was a USGS senior scientist for water. He has done research on water resources, water hazards and water quality issues. He is a member of the AWRE board of directors.

Jared provided the SOH with an overview of CUASHI.

CUASHI is a resource for the hydrology community. It is like the National Center for Atmospheric Research (NCAR) in that it is a consortium of universities and non-profits. It is a 501c(3) organization, and is a non-profit consortium of 130 U.S. universities.

CUASHI is engaged in many different initiatives.

To find and publish time-series data, CUASHI has developed HydroClient. This can be used to search for and download time series data. Data is returned in a common format, regardless of source. Users can upload their own data.

They are working on a platform for sharing other data. It is an advanced architecture, and may be used by other networks.

HydroShare is simplistically, Facebook for water. It is possible to find, publish, and operate on data on HydroShare. It is collaborative data analysis and publication. A DOI is provided so data can be cited. There is a HydroShare apps library. One app allows users to look at National Water Model simulations and forecasts. There is the Jupiter Python notebook app. Recently an article in the Atlantic discussed how the traditional scientific paper is dead as everything is so data intensive. This app allows for publishing in a Python notebook.

CUASHI is engaged in several community services, such as cyberseminars, training and workshops led by instructors from multiple institutions and agencies, and student grants. The Summer Institute partnership between NWS and CUAHSI involves the academic community and graduate students for a six-week program including a capstone project.

CUASHI is focused on meeting the needs of the hydrologic modeling community. It provides tools, establishes governance and provides community data sets.

Tom thanked Jared for the presentation. Tony Castronova will be coming to their meeting on modeling and model data fusion. During the meeting, they will look at how people process the data, how to use the tools, and looking at uncertainties. CUASHI's primary work is to enable others. Tom asked if the data has a pedigree, as to how the data was processed? Jared responded that it did have that information.

Terry Davies wanted to say thank you to Jared and CUASHI for the presentation.

Martin noted that there are many sources of data. Does CUASHI vet these sources as to the validity of the data? Jared answered that the user must depend on their own knowledge to decide what is valid and what is not. CUASHI hosts catalogs of data, which will still have metadata. CUASHI does not have the resources to vet everyone's data. They do provide the information to let users make the decisions.

Martin asked if are there standards? Jared said no, but if it is USGS data, you know their standards and can decide.

## **6. SOH work groups**

The handout on proposed work group requirements is included as Attachment 3.

Siamak proposed that the SOH manage a work group like a project. Most of the attachment is from the terms of reference. The chair or vice chair needs to be an SOH member. The key members include the chair, vice chair and technical lead. The final product should be endorsed by the subcommittee and presented to ACWI.

Tom asked if this would be back fitted on existing work groups. Siamak responded that the first step is to decide if this is a good path forward, and then later decide about retrofitting existing groups.

Tom said that this is an excellent start. Is the workgroup going to exist to share information and ideas? There should also be a communication plan of how the work group will introduce a new standard. We should also think about a sunset provision and reauthorization, such as a five-year sunset clause. He suggested adding a bullet at the beginning to describe objectives and product. It was noted that the draft document has an 18-month termination period.

Claudia believes 18 months is too short and would favor a three- to five-year range. Providing updates every six weeks is a little restrictive. For the most part, this is a good start. She is thinking specifically of HMWG and the SedHyd conference, but If we apply these guidelines to existing work groups we will have a problem.

Siamak said there is a distinction between groups tasked to do things versus produce something. Three to five years is too long, and groups don't get things done. This would provide a push to get it done.

Claudia proposed extending it to two years. The SOH doesn't want to get into a situation where work groups are more concerned about timelines than getting things done. The process should not get in the way of the work.

Will agreed that 18 months is too short. Developing Bulletin 17B was a four-year effort. Bulletin 17C took longer. The timeline depends on the product.

Siamak proposed that the SOH decide on an upper limit and leave it to the work group.

Tom said that the work group needs to have resource commitments from the SOH Federal agencies and others to perform the work.

Siamak said the SOH would give that responsibility to the chair of the work group.

Tom recalled that ACWI was flabbergasted during the SOH briefing to them in January 2018 that NOAA Atlas 14 did not have the resources needed to complete their work. Workgroups need agency sponsors to make those commitments.

Martin said if we consider Rich Vogel's request as an example, he wants to form a work group that will do a low flow version of 17C. Who gives that work group the authority to decide for the federal government?

Robert answered that the work group would develop the guidelines to propose to the SOH, which the SOH would provide to ACWI. SOH does not have the authority, but ACWI does.

Martin asked who would coordinate with OMB. Robert said that ACWI is entrusted to DOI.

Siamak noted that this is way ahead in the process.

Robert clarified that ACWI does not issue regulations. OMB does not interfere with SOH/ACWI for guidelines.

Martin responded that somewhere along the line, for those guidelines to have authority, they must be "blessed" way up the line. Who is it up the line who must "bless" the work that the work group plans to do?

Tom suggested that Martin ask Don Cline, chair of ACWI.

Martin said that someone should ask Don Cline who interfaces with OMB.

Siamak said that the SOH only provides white papers and recommendations. The subcommittee is authorized to identify problems and propose solutions.

Will said that the immediate product for the lowflow workgroup will be like Bulletin 13, which is just a literature summary of currently used methods.

Siamak said that not every guideline turns into regulation. Bulletin 17C is best practices.

Siamak asked if there were any other comments on the draft work group guidelines.

Tom commented that the SOH Federal agency sponsoring the workgroup needs to commit resources.

Will commented that he would prefer that one of the key members of the work group is an SOH member, but does not think that the chair or vice chair need to be members.

Siamak confirmed that Will's comment is that the change to the draft is that the chair, vice chair or technical lead would be SOH members.

Tom asked who is accountable for the workgroup. Siamak answered that the chair is responsible.

Claudia said that the key is that someone on the work group is responsible to the SOH.

Jason Giovannettone commented that in another organization in which he participated, PIANC, an international river navigation and infrastructure group, every working group had to have a mentor from the main organization.

Siamak said we don't want to dictate how they function, but there must be a structure in place, and we need to force that structure.

Jason said that the mentor made sure things were moving along, but the chair is the one leading the work group.

Siamak said that maybe this is closer to what Claudia has suggested. Perhaps remove the requirement that the chair/vice chair/technical lead be an SOH member and instead ensure that someone is responsible for reporting.

Claudia said that as an example, Rich would be technical lead for a low flow work group, but he may be doing some things that may be required of a workgroup chair.

Tom said that the task force does the work in the short term, then provides a proposal for ACWI's review and approval prior to establishing the workgroup's charter and its formulation.

Siamak said that for example, Robert could be chair, and Richard could be the technical lead. Robert is the connection with the SOH. We don't have to decide now. Please write down your thoughts within in the next month and send to Laura, Ashley, Siamak and Sujay.

Robert is concerned about making Rich wait.

Claudia said that we are very caught up in structure, and this is a good conversation to have. In the meantime, we have an opportunity to get a group working, and we don't want to hold it up.

Siamak would like a mission, clear description and solution.

Will said that the white paper resolves all these questions.

Siamak suggested that Robert work with Richard and answer these questions.

Claudia said that many of these questions have been answered.

Robert suggested a two- to four-week deadline to resolve. The USGS would be happy to help develop this proposal.

Tom proposed that we make a motion for the short term.

Robert suggested two motions; a motion to adopt a process based on this draft and a motion to use this template to create a proposal. Claudia seconded.

Siamak concluded that he is looking forward to receiving comments on the draft.

In a short deviation from the agenda, Siamak said that we need to discuss how to accept private sector membership in the subcommittee. Martin would be interested in an ad hoc group. Siamak thinks

everyone should be a part of the group. We will put a Doodle poll together to send for a date for this discussion.

Siamak said that since we have no quorum, he will solicit votes via email regarding Dewberry's membership request.

#### *Work Group Reports*

##### *HFAWG*

Will provided the HFAWG report. The USGS published Bulletin 17C. He provided a report yesterday to everyone. The report is also on USGS and HFAWG websites. They published an announcement in Civil Engineering News and Water Resources IMPACT. Four workshops are planned (see details in the work group report). The work will continue as, there is still work to be done to address new issues. The full work group report is provided as Attachment 4.

##### *ESEWG*

Tom provided the ESEWG report. There will be an ESEWG meeting on May 16 at the National Weather Service in Silver Spring, Maryland, where the work group will review the final written Extreme Rainfall Product Needs Proposal. The full ESEWG report is included as Attachment 5.

##### *STIWG*

LySanias Broyles provided the report. STIWG and TWG meetings in were held in April. These were training meetings, held for the first time to provide training for international users. First agreement for a unified platform has been sent to NOAA for review, so by the end of summer all agencies should be using the same software.

Siamak commented that we need a better understanding of the way we define a product. The group would like to know about solving these types of problems and what kind of solution STIWG is trying to achieve. Can any of these recommendations be put forward to ACWI? LySanias can this bring up at the next meeting.

*Streamflow information collaborative* - no representative was present

##### *Data gaps*

Sujay Kumar provided the report. The group is technically not a work group yet. They will fill out a document based on the draft requirements. It depends on who the group can recruit. Ted Engman is retiring at the end of this year. The data gaps group will need some help from other members if it will go forward.

##### *HMWG*

Claudia provided the report. The full report is included as Attachment 6. It includes an organization chart for the SedHyd conference. The committee has reviewed the conference timeline. The theme for the conference is "Improving Resiliency and Sustainability of Watershed Resources and Infrastructure."

There is a need for help with the technical side of the conference (as opposed to the operations side.) HMWG is looking to the SOH for a technical program chair. They are also looking for moderators who

can help with technical reviews. They need a poster and model demonstration coordinator and a media coordinator. The positions labeled “YP” indicate that they would like to team the person in that position with a young professional, to give young employees experience with planning and organizing a conference. Please contact Claudia or Robert if you are interested or have young professionals who might be interested. The conference is June 24-28, 2019 at the Peppermill Hotel in Reno, Nevada.

### *Business Reports*

In the interests of time, agency business reports are not presented at the meeting but are included in the minutes. The NOAA business report was provided by Victor Hom and is included as Attachment 7.

#### **7. Action items for next meeting**

1. Siamak will solicit member votes to decide on Dewberry membership.
2. There will be separate ad hoc meeting (to be determined by doodle poll) for determining a process for other private members.
3. Please send comments on the low flow draft to Siamak and Sujay within the next two weeks. Robert will get the USGS to work with Rich Vogel on filling out those requirements. The USGS will sponsor a WebEx with Rich on the technical aspects.
4. Siamak will direct an effort to clean up the membership lists. Names of members from the roster on the website will be cross-referenced to email lists. There are people who have retired and we need to clean up the email list. We will send an email to each member of the SOH with a list of other members in their organization and ask who should stay on the email list. No one will be removed without talking to people. Claudia recommends that everyone review that list, and that an email should be sent out to those who will be removed stating that they will be removed and why.
5. The next meeting will be the fourth Thursday of the quarter, which is July 19. Dewberry has offered to host again. Due to the number of administrative issues to discuss, Siamak proposed skipping the feature presentation. There were no objections.
6. Robert had a final note concerning ACWI. Most of the membership of ACWI is expiring this summer. There will be a re-chartering of all the members as 80-90% of them will be ending.

The meeting adjourned at approximately 3:30 pm.

## Attachment 1 – Roll Call and Represented Member Agencies

### Roll Call

Name	Agency/Group	In person/On phone
Will Thomas*	ASFPM	On phone
Brian Beucler*	FHWA	On phone
Mathini Sreetharan	Dewberry	In person
Laura Chap	Atkins/STARR II	In person
Siamak Esfandiary*	FEMA	In person
Terry Davies*	NSF	On phone
Robert Mason*	USGS	In person
Claudia Hoeft*	NRCS	On phone
Martin Becker*	BECKER	On phone
Julie Kiang	USGS	On phone
Jason Giovannettone	Dewberry	In person
Steven Yochum*	USFS	On phone
Thomas Nicholson*	NRC	On phone
Victor Hom*	NWS	On phone
Richard Vogel	IWR	On phone
Chandra Pathak*	USACE	On phone
Seth Lawler	Dewberry	In person
LySanias Broyles	USACE	On phone
Sujay Kumar*	NASA	On phone

\*SOH member (or alternate if member was not present)

### SOH Member Agencies Represented at Meeting

ASFPM	Yes
USBR	No
BECKER	Yes
FEMA	Yes
FERC	No
NSF	Yes
FHWA	Yes
GEC	No
NASA	Yes
NHWC	No
USDA - NRCS	Yes
NWS	Yes
USACE	Yes
USDA - ARS	No
USDA - USFS	Yes
DOI - BLM	No
DOI - OSMRE	No
DOI - USGS	Yes
EPA	No
NRC	Yes

**Attachment 2 – Agenda**

**MEETING OF THE  
ADVISORY COMMITTEE ON WATER INFORMATION'S (ACWI)  
SUBCOMMITTEE ON HYDROLOGY (SOH)  
12:30 p.m. – 3:30 pm, Eastern Time  
Thursday, April 19, 2018**

**Location:** In-person meeting at Dewberry Office, 8401 Arlington Boulevard, Fairfax, VA 22031

**Problems?** Ashley Roby, Office: (240) 616-3746; Siamak Esfandiary, cell: (202) 701-3606

**Meeting Instructions and Resources:**

In the interest of time, we will be using the doodle poll to do our roll-call. Please register before COB on April 18 via <https://doodle.com/poll/8wdhbwiwgxnfcmwX>

Call-in and meeting link:

<https://connect.dewberry.com/orion/joinmeeting.do?MTID=0782442316dcdaa7d3ae7325267cd8fa>

Access Code/Meeting Number: 998 487 888

Password: sohmeeting

Audio Connection Number: 7038490300

<b>Agenda</b>
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- |   |  |
|---|--|
| <b>1. Welcome and Roll-Call (5 mins)</b>  | <b>Siamak Esfandiary, SOH Members and Guests</b> |
| <b>2. Approval of the January 18, 2018 Meeting Summary (5 mins)</b>   | <b>Laura Chap</b>                                |
| <b>3. Status of Action Items from January 18, 2018 Meeting (5 mins)</b>   | <b>Siamak Esfandiary</b>                         |
| • Low flow white paper (to be discussed under New Business)   |  |
| • Governance call update (added to agenda as Item 8)  |  |
| <b>4. New Business/Announcements (10 mins)</b>  |  |
| • White paper update  | Dr. Richard Vogel                                |
| • Probabilistic mapping needs (sampling automation)   | Siamak Esfandiary                                |
| <b>5. Featured presentation – Consortium of Universities for the Advancement of Hydrologic Science, Inc. (40 min)</b> | <b>Dr. Jerad Bales</b>                           |
| <b>6. Break (5 min)</b>   |  |
| <b>7. SOH Workgroups (15 mins)</b>  | <b>Siamak Esfandiary</b>                         |
| • <i>HFAWG</i>  | <i>Will Thomas</i>                               |

- *ESEWG*
- *STIWG*
- *Streamflow Info Consortium*
- *Data Gaps*
- *HMWG*

*Tom Nicholson*  
*LySanias Broyles*  
*Doug Yeskis*  
*Ted Engman*  
*Claudia Hoeft*

- 8. Discussion on SOH Terms of Reference and rules for work groups (20 min)** **All**
- 9. Review Actions and Plans for next SOH meeting (5 mins)** **Siamak Esfandiary**
- 10. Next Meeting** **All**
- 11. Meeting Adjourn (Around 3:30 pm)**

### **Attachment 3 – Draft work group requirements**

Subcommittee on Hydrology Work Group Requirements (draft)

Compiled by Siamak Esfandiary

4/19/2018

- Please describe in detail the need this work group will address. Provide a clear description of the problem, its scale, and why it is important to federal government. Please do not include the solution.
- Please describe the solution in detail and how it will be achieved.
- Please list all the existing related references, tools and documents (if any) that will be used in this effort.
- Please describe how the work group will improve the availability and reliability of information in any of the following fields:
  1. hazard mitigation:
  2. water supply and water use management:
  3. environmental protection:
- Will the work group activities support or improve existing practices in any of the fields below? Please provide detail explanation.
  1. precipitation information
  2. stream flow information
  3. water supply planning
  4. water allocation
  5. flood control operations
  6. water quality management
  7. navigation
  8. recreation
  9. flood forecasting
  10. emergency management operation
  11. other water related decision making tools
- Please provide:
  1. Names, affiliations, and qualifications of key members, and their responsibilities in the work group. At least 3 key members are required (either the Chair or Vice Chair needs to be an SOH member):
    - a. Work group Chair:
      - i. Initiates and ends the work group

- ii. Selects independently the members of the work group at least one of which is a member of a federal agency, subject to endorsement of the SOH
      - iii. Is responsible for delivering the final product on schedule
      - iv. Provides updates
    - b. Work Group Vice Chair:
      - i. Assists the Chair in her/his responsibilities
    - c. Work Group Technical Lead:
      - i. Assists the Chair in delivering a technically credible product
      - ii. Provides technical support
      - iii. QA
  2. Other members that will work with the work group:
    - a. Names, affiliations, qualifications, and their responsibilities in the work group
  3. Any other resources that will be used
  4. Schedule and milestones. Maximum duration is 18 months; a 12-month extension request may be granted by the SOH Chair if adequate justification is provided by the work group Chair.
  5. A QA/QC plan that is endorsed by the subcommittee
  6. Description of the final product that is endorsed by the subcommittee
  - Requirements:
    1. SOH endorsement is required prior to establishing the work group and for the final product prior to presentation to the ACWI
    2. Provide regular updates to the members at SOH quarterly meetings
    3. Provide brief updates (emails) to the SOH Chair and Vice Chair every 6 weeks
    4. Present the final product to the ACWI for deliberation and approval as advice to the Federal Government

## Attachment 4 – HFAWG Report

### Hydrologic Frequency Analysis Work Group (HFAWG) Report for the Subcommittee on Hydrology Meeting on April 19, 2018

The U.S. Geological Survey (USGS) published Bulletin 17C, *Guidelines for Determining Flood Flow Frequency*, on March 29, 2018. This represents a major accomplishment of the HFAWG that we have been working on since November 2005 when we first drafted our approach for revising Bulletin 17B ([https://acwi.gov/hydrology/Frequency/minutes/HFAWG\\_for\\_revising\\_Bulletin17B\\_4.pdf](https://acwi.gov/hydrology/Frequency/minutes/HFAWG_for_revising_Bulletin17B_4.pdf)).

The published version of Bulletin 17C (29.3 MBs) is available at the following link:

<https://doi.org/10.3133/tm4B5>

The USGS web page also has a link to the ACWI/SOH Bulletin 17C page at (<https://acwi.gov/hydrology/Frequency/b17c/>).

The co-authors of Bulletin 17C have been working on ways to spread the word about Bulletin 17C and to provide guidance on the new procedures. For example, the publication of Bulletin 17C was announced in the March 2018 issue of Civil Engineering News and an article on the publication of Bulletin 17C will appear in May 2018 issue of Water Resources IMPACT, a publication of the American Water Resources Association.

In addition, the co-authors have plans for presenting four workshops on Bulletin 17C over the coming months notably at the following major conferences:

- EWRI-ASCE Annual Conference in Minneapolis, MN in June 2018,
- ASFPM Annual Conference in Phoenix, AZ in June 2018,
- FHWA National Hydraulic Engineering Conference in Columbus, OH in August 2018, and
- Transportation Research Board Annual Conference in Washington, DC in January 2019.

There is still a need for improved guidelines for frequency analyses of hydrologic data such as:

- Frequency analysis of nonstationary flood data affected by changing climate and land use conditions,
- Frequency analysis of drought flows such as the proposal by Rich Vogel and Chuck Kroll that will be discussed again at the April 19, 2018 meeting of the SOH, and
- Frequency analysis of flood data where upstream flows are regulated by detention structures (one of the original charges to the HFAWG that was not completed).

Therefore, there is a need for the HFAWG to continue its work and devote attention to new guidelines on frequency analysis of hydrologic data.

Will Thomas  
Chair of the HFAWG  
April 18, 2018

## **Extreme Storm Events Work Group (ESEWG) Report for the Subcommittee on Hydrology Meeting on April 19, 2018**

The Extreme Storm Events Work Group (ESEWG) met on February 28, 2018 and March 9, 2018. Dr. Sanja Perica, NWS/NOAA has agreed to host the **next ESEWG** scheduled for **May 16, 2018** at the **NOAA’s National Weather Service’s (NWS) offices in Silver Spring, MD @1:00 p.m. EDST in Room 8246**. For those not able to attend in person, they can attend **remotely by calling-in on telephone number 1-866-732-1430 with Participant passcode: 6137160**.

At the February 28<sup>th</sup> meeting, our newest ESEWG member, Dr. Brian Nelson, NOAA/National Centers for Environmental Information (NCEI) was introduced. The principal item on the agenda was discussion of the draft “***Extreme Rainfall Product Needs Proposal***.” Each “Product Need” author discussed their section of the proposal and answered questions:

1. William Otero, Team Leader, Proposal Writing Team and USACE, provided an overview of *draft Proposal on **Extreme Rainfall Product Needs***.
2. *Dr. Sanja Perica, NOAA/NWS discussed Product #1 – **Section 2.1 NOAA Atlas 14 Updates and Upgrades***.
3. Marian Baker, NWS/NOAA and William Otero, USACE discussed Product #2 – **Section 2.2 U.S. Extreme Precipitation Database**.

4. John Onderdonk, FERC and Mark Perry, State of Colorado discussed Product #3 – **Section 2.3 Site-Specific PMP Studies - Updating the NWS Guidance in the Hydrometeorological Reports (HMRs)**.
5. Victor Hom, NOAA was not able to attend to discuss Product #4 – **Section 2.4 Designing a Probabilistic/Statistical Approach to PMP**. There was a brief discussion of Section 2.4. It was recommended and approved to revise the “Product” and “Section 2.4” title by replacing “PMP” with “Extreme Rainfall.” It was also agreed to have a special follow-up teleconference to discuss Product #4 when Victor Hom, NOAA was available.

On March 9, 2018, the ESEWG had a follow-up teleconference with Victor Hom and ESEWG members to discuss **Section 2.4 on "Designing a Probabilistic/Statistical Approach for Estimating Extreme Rainfall"** contained in the earlier draft of the “**Extreme Rainfall Product Needs Proposal**.” There was a consensus by those in attendance to drop the subject section. However they wanted to hear from FERC and State of Colorado dam inspectors directly as to their responses to the following questions before making a final decision on Section 2.4:

1. Does your organization use or do those you regulate use the Hershfield methodology?
2. Does your organization or do those you regulate, understand and appreciate the limitations of the Hershfield methodology for small basins and short durations?
3. Do we need to retain Section 2.4 in the draft Proposal as an important rainfall product need?
4. If we retain the section, can you identify a knowledgeable colleague to help complete the drafting of Section 2.4 and Appendix C, showing the linkage to the other three “Product Needs (i.e. Sections 2.1, 2.2 and 2.3)”?
5. Should discussion on “Probabilistic/Statistical Approach for Estimating Extreme Rainfall” be separated from the draft Proposal, and later developed as a separate proposal involving research studies?

Following the teleconference, I e-mailed the above questions to John Onderdonk and Ken Fearon, FERC and Mark Perry, State of Colorado and requested their responses by Thursday,

March 22<sup>nd</sup>. Based upon their responses, the ESEWG proposal team members decided to move **Section 2.4 “Designing a Probabilistic/Statistical Approach for Estimating Extreme Rainfall”** and Appendix C to a separate research proposal. That material will be saved for use at a later time in a separate research proposal for development of probabilistic/statistical approaches for estimating extreme rainfall.

Prior to our May 16, 2018 meeting, Marian Baker is working with William Otero, Proposal Writing Team Chair, to update **Section 2.2 “U.S. Extreme Precipitation Database”** in consultation with USACE – Omaha District staff. She is developing a table of needed activities and staff resources in consultation with William Otero and Chandra Pathak, USACE.

William Otero will prepare and send the final draft proposal to the ESEWG members by May 11, 2018 for their review. At the May 16, 2018 ESEWG meeting, we will vote to approve the completed proposal, and send it forward to SOH. Upon approved by the ESEWG, William Otero will send the final proposal to the SOH Chair and Vice-Chair.

**Respectfully submitted**

**Thomas J. Nicholson, Interim Chair  
Extreme Storm Events Work Group  
Subcommittee on Hydrology**

## **Attachment 6 – HMWG Report**

### **Hydrologic Modeling Work Group Report to SOH, April 19, 2018**

The SEDHYD planning committee last met on Friday, April 13, 2018 to review the conference timeline, including the call for papers and submittal timeframes; establish a theme for the conference; identify planning committee vacancies, and make recommendations on recruitment to fill those vacancies.

SEDHYD 2019, Federal Interagency Sedimentation and Hydrologic Modeling Conference, is scheduled for June 24-28, 2019, at the Peppermill Hotel in Reno, Nevada.

The committee plans to issue a save the date notice in the next few weeks. Currently, we anticipate the call for papers to go out in late May or early June with abstracts due late July to early September.

The tentative theme for the conference is "Improving Resiliency and Sustainability of Watershed Resources and Infrastructure".

Several vacancies remain on the planning committee, including a conference overall technical program chair, a poster and model demonstration coordinator, a hydrologic modeling program chair, and a media coordinator.

Some of the responsibilities of these positions include:

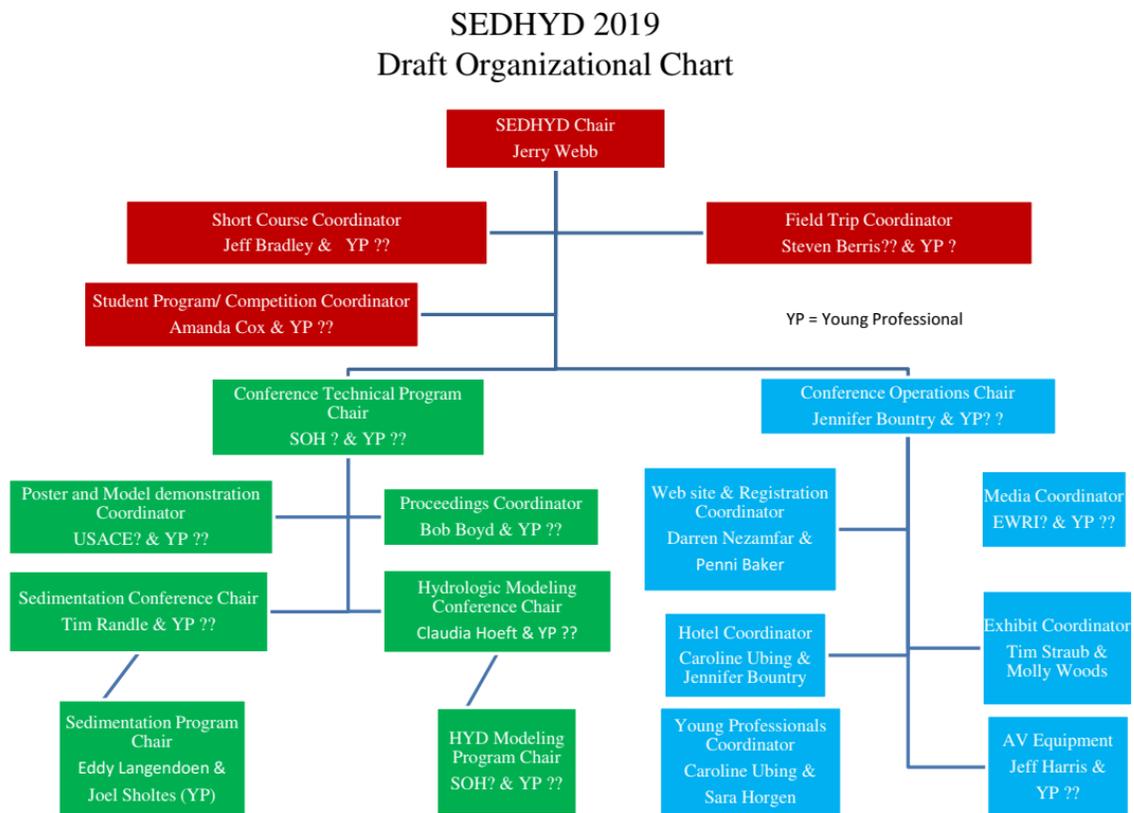
- **Conference Technical Program Chair**  
Responsible for development of the technical program of the conference – as opposed to the Operations Chair. Responsibilities include development of the agenda for sessions, working with the Sedimentation Conference Chair and Hydrologic Modeling Conference Chair to organize papers and posters into appropriate topic areas and tracks; working with conference center staff to ensure message boards display appropriate information for session locations and content.
- **Poster and Model demonstration Coordinator**  
Responsible for overseeing and organizing the poster and the model demonstration sessions.
- **Hydrologic Modeling Program Chair (in the past, the Technical Program Chair)**  
Works with the Hydrologic Modeling Conference Chair to review the abstracts as needed and make recommendations on tracks/topics for paper groupings. They also work

directly with Session Moderators on technical review of the papers submitted and accepted for presentation.

- **Media Coordinator**  
This is a new position this year. The planning committee thinking is that this individual will help with publicize the conference by providing updates and information using current social media platforms.

You will note on the attached Draft Organization Chart the designation YP. We are hoping also to recruit some young professionals to assist the planning committee members in their respective duties and step into those lead roles for the next SEDHYD conference.

If anyone is interested in serving in any capacity, please get in touch with myself or with Robert Mason and we can discuss with you the duties and responsibilities.



## Attachment 7 – NOAA Business Report

### SOH Member Business Reports (April 2018)

#### NOAA NWS

##### NWS Aware Report

The monthly editions of Aware (<http://www.weather.gov/publications/aware>) is a free publication of the National Weather Service geared to the emergency management community, partners and NWS staff. In the [February 2018 edition](#), there were several stories which might be of interest to SOH members.

- NWS had noted that Rhode Island had become the fifth state to achieve StormReady Status and joins Delaware, Florida, Hawaii, and South Carolina with this distinction. For more info on StormReady, please visit: <https://www.weather.gov/stormready/>
- NWS described the impacts of *Atmospheric Rivers* on Alaska and NWS assistance to the Cordova AK team. To learn more, please visit: <http://www.noaa.gov/stories/what-are-atmospheric-rivers>
- NWS had released [ArcGIS Story Map of Hurricane Irma](#), which featured GOES-16 satellite and radar imageries, behind-the-scene photos, and an interactive maps cataloging Irma's impact on the Florida Keys. Irma struck the Florida Keys as a Category 4 hurricane and was part of the devastating [2017 Atlantic Hurricane Season](#) that also included major landfalling Hurricanes [Harvey](#) and [Maria](#).

##### Latest Stories from NOAA

The following website (<http://www.noaa.gov/stories/all>) also contained stories of possible interest to the SOH Community. Members may want to check out the following stories reported in April 2018.

- [Reopening Rivers for Migratory Fish](#). April 21, 2018 is World Fish Migration Day, which is a global event to raise awareness of the importance of open rivers and migratory fish.
- [National Geodetic Survey's Height Modernization Efforts](#). The National Geodetic Survey, in cooperation with the surveying community, is working to develop and test more effective ways to improve elevation data.
- [NOAA Report on National Coastal Flood Vulnerability](#). NOAA's Center for Operational Oceanographic Products and Services had examined existing National Weather Service flood thresholds, discovered patterns in these thresholds with respect to the tidal ranges, and found a statistical consistent way to measure and monitor minor, moderate, and major high tide flooding for locations with no thresholds(see [link](#)).

##### NWS Request on SOH Member Feedback

NWS would like SOH feedback on recently released experimental products.

- [Alaska River Ice Breakup Map](#) ([Announcement](#), [Description](#), and feedback [link](#)).
- [Extreme Precipitation Monitor](#) ([Announcement](#), [Description](#), and feedback [link](#)).
- [National Water Model Webviewer](#) ([Announcement](#), [Description](#), and feedback [link](#)).
- [Runoff Risk Analysis Data for Great Lakes States](#) ([Announcement](#), [webpage](#), feedback [link](#)).