

Streamflow Information Network Collaborative – Subcommittee to ACWI-SOH
Conference Call Notes
June 20, 2016

Agenda

The call started at 2 PM EDT but Doug Yeskis was about 8 minutes late to call.

Attendees

Doug Yeskis, USGS
Robert Mason, USGS
Thomas Nicholson NRC
Claudia Hoefft, NRCS
David Green, NASA
Peter Evans, Emeritus Interstate Council on Water Policy
Meredith Carr NRC
Jack Felbinger, OSM
Mike Muse, USEPA
Jason Todd, USEPA
Will Thomas, Michael Baker International
Jandra Back, USACE
Michelle Eddy, Research Triangle Institute
Chandra Pathak, USACE
Seyoum Asamenaw, FERC, Atlanta Regional office
Todd Engman
Mike Eberle, US forest Service
Dave Goodrich , USDA, ARS

Agenda

- Roll Call
- Review meeting notes from last conference call (attached)
- Schedule next call
- Review Charter (attached)
- Objectives of the Workgroup

Notes

Went over notes from the May 19, 2016 call, and will send out revised notes with draft of this set. Several additions to those notes were requested on the specific objectives for the collaborative discussion.

Discussion for scheduling the next call resulted in Doug committing to send out Doodle Poll for the week of July 18 for that call.

Charter was not discussed. Discussion on co-chair with an agreement to wait for objectives to be resolved.

Folks were interested in more information WaterSMART and Water Use and requested that a link be sent, and additional information on the Water Census, and portal (set up for future conference call for

the portal). See links in attached web links in the back of these notes. Will also send a powerpoint presentation in the email transmitting these draft notes.

Information Needs of the Group:

- What portal(s) are already in place National Streamflow Information Portal (streamflow stats?). How reliable is that data? Nuclear Plant on Susquahanna example. Dave Blodgett's work was briefly discussed (note to follow up). NGWMN and Open Water Data Initiative were initiatives discussed as potential models (links are provided on Web Links at end of notes).
- Water Use and Availability Assessments & others and develop a list of informational webinars? Do we have a canned webinar that I can send the link to on that and NGWMN Portal? (*note, have presentation added to email transmitting these draft notes and link to NGWMN Portal provided at end of notes*).
- Also more information on the National Water Center in Tuscaloosa, AL and what is available now and is available in the future. Are these public meetings? – *Note: No, by invitation only*. Send out more information as available.

Discussion on objectives for this workgroup. From the email I sent June 16, the following was to kick off the discussions:

With respect to the Objectives of this workgroup, I thought I would provide some comments for you all to think about prior to the call. I want to emphasize that this workgroup is your workgroup to discuss what you all and your organizations would like to see "support national information network goals and priorities" as described in the charter. We did not lay out what these are specifically to provide the opportunity for input from this Collaborative. One of the members and I were discussing this, and I promised to lay out some potential starting objectives to help start the discussions. I had been reluctant because I didn't want to "channel" discussions, but I thought I would provide a starting point. So what follows is a number of potential objectives, in no specific order, but purely just to give you all some thoughts prior to our discussion next Monday. This is not all inclusive!

- What should a national streamflow network have, such as:
 - Are there additional parameters that all or many streamgages should have to provide "information" that is needed nationally, such as temperature?
 - Are there minimum standards for operation, such as continuous flow for a certain period (6 months, 9 months, 1 month)?
 - Are there limitations to what agencies/companies/etc. that should provide the streamgages (USGS, only agencies, do we include universities, do we include private companies)?
- This is a streamflow "information" workgroup, so what other information should we consider, such as:
 - Should we build a national portal for a network? or should we consider a national site that points to other sites that have data?
 - Should we consider having a site or part of a site for information products?
 - Should we integrate or coordinate our work with other parts of the water cycle, such as with the National Groundwater Monitoring Network (<http://cida.usgs.gov/ngwmn/>). There are other networks/entities that are inter-related, such as SNOTEL for Snow, etc.
- Is there an educational component?

During the discussion, issues that were discussed how to interact with the weather forecast centers now and in the future. Want to have access real time? How do we real-time exchange of information?

Other USGS research efforts for the group and stakeholder needs – network gap analysis (Julie Kiang-link is provided on the publications page of these notes) identify weak spots, and shore up network. // PA WSC optimize the streamgage network in PA to better service their needs in that state.// Conductivity issues and design of streamgage networks and biased towards where there is constant flows – How do we monitor ephemeral streams, smaller streams, etc. Intermittent networks.

Bibliography that is updated with each set of notes was requested (see pages at back of notes).

Doug is to check with USGS WSC's to see if other optimizations done besides PA and MD.

Bibliography

USGS Streamflow Network Evaluations:

Bales, J.D., J.E. Costa (chair), D.J. Holtschlag, K.J. Lanfear, S. Lipscomb, P.C. Milly, R. Viger, and D.M. Wolock), 2004, Design of a National Streamflow Information Program -Report with Recommendations of a Committee, Open File Report 2004-1263, <http://pubs.usgs.gov/of/2004/1263/>

Benson, M.A., and R. W. Carter, 1973, A National Study of the Streamflow Data-Collection Program, USGS WSP 2028, <http://pubs.usgs.gov/wsp/2028/report.pdf>

Kiang, J.E., Stewart, D.W., Archfield, S.A., Osborne, E.B., and Eng, Ken, 2013, A national streamflow network gap analysis: U.S. Geological Survey Scientific Investigations Report 2013-5013, 79 p. plus one appendix as a separate file, <http://pubs.usgs.gov/sir/2013/5013/>

Thomas, W.O. Jr. and Wahl, K.L., 1993, Summary of the nationwide analysis of the cost effectiveness of the U.S. Geological Survey Stream-Gaging Program (1983-88), WRIR 93-4168, <http://pubs.usgs.gov/wri/1993/4168/report.pdf>

USGS, 1998, A New Evaluation of the USGS Streamgaging Network – A Report to Congress November 30, 1998, <https://water.usgs.gov/streamgaging/report.pdf>

USGS, 1999, Streamflow Information for the Next Century, Open-File Report 99-456, <http://pubs.usgs.gov/of/1999/ofr99456/>

Streamgaging Evaluation by States:

Maryland - Cleaves, E.T., and Doheny, E.J., 2000, *A strategy for a stream-gaging network in Maryland*: Maryland Geological Survey Report of Investigations No. 71, 72 p. http://www.mgs.md.gov/reports/RI_71.pdf or <http://md.water.usgs.gov/publications/mgs-ri-71/mgs-ri-71.pdf>

Pennsylvania –Currently a report is in development, close to Bureau approval. Report was of the streamgage network in PA and the entire Susquehanna River Basin identifying potential gaps in the network and also streamgages with high substitution potential (i.e., redundancy).

Virginia - Carpenter, D.H., 1985, [Cost-effectiveness of the Federal stream-gaging program in Virginia](#): U.S. Geological Survey Water-Resources Investigations Report 85-4345, 72 p.

Web Links

USGS

<https://www.usgs.gov/>

Main USGS Web Page

<https://www.usgs.gov/science/mission-areas/water>

USGS Water Mission Area

Groundwater and Streamflow Information Program

<https://www.usgs.gov/science/mission-areas/water/groundwater>

Groundwater and Streamflow Information Program

<http://cida.usgs.gov/ngwmn/index.jsp>

National Groundwater Monitoring Network Portal

<http://water.usgs.gov/nsip/>

National Streamflow Information Program (what is now known as the Federal Priority Streamgages (FPS))

<http://waterdata.usgs.gov/nwis/rt>

NWIS Daily Streamflow Conditions

Water Availability and Use Science Program

<http://water.usgs.gov/watuse/>

Water Use

<http://water.usgs.gov/wausp/>

Water Availability and Use Science Program

OTHER LINKS TO DATA AND CURRENT CONDITIONS

<http://www.wcc.nrcs.usda.gov/snow/>

NRCS Snow Telemetry (SNOTEL) and Snow Course Data and Products

<http://mvs-wc.mvs.usace.army.mil/dresriv.html>

U.S. Army Corps of Engineers Lake and River Stage

<http://www.usbr.gov/main/water/>

Bureau of Reclamation Water Operations

<http://www.usbr.gov/watersmart/>

Bureau of Reclamation WaterSMART

<http://hydrodesktop.codeplex.com/>

CUAHSI Hydro Desktop

<http://droughtmonitor.unl.edu/>

US Drought Monitor

OTHER LINKS OF INTEREST

<https://www.weforum.org/reports/the-global-risks-report-2016/>

The Global Risks Report 2016 by the World Economic Forum

<http://water.usgs.gov/swaq/docs/strengthening-scientific-understanding-aug-2011.pdf>

Report to Congress Strengthening the Scientific Understanding of Climate Change Impacts on Freshwater Resources of the United States

<http://www.wcc.nrcs.usda.gov/ftpref/support/drought/dmrpt-20160707.pdf>

Example of a weekly newsletter from the NRCS that you can subscribe to.

<http://acwi.gov/spatial/owdi/>

Open Water Data Initiative