Streamflow Information Collaborative – Subcommittee to ACWI-SOH
Conference Call Notes
September 27, 2016

Agenda

The call started at 12 PM EDT.

- Roll Call
- Finalize June conference call notes
- Review meeting notes from last conference call (July, which are attached)
- Schedule next call
- Continue Discussion on Objectives of Workgroup
- Review Charter

Attendees:

Doug Yeskis, USGS
Claudia Hoeft, NRCS
Lysanias Broyles, USACE
Sara Larsen, Western States Water Council
Robert Mason, USGS
Brian Beucler, Federal Highway Administration
Jack Felbinger, Pittsburgh Office, OSM
Dave Goodrich, USDA, ARS
Meredith Carr, NRC
Sara Larsen, WSWC
Jason Todd, EPA
Chris Carlson, US Forest Service
Dan Schwitalla, USGS
Dwane Young, EPA
Peter Evans, Emeritus Interstate Council on Water Policy
Ben Pratt, Susquehanna River Basin Commission

June Conference Call Notes

No changes offered – will finalize notes

July Conference Call Notes

No changes offered – will send for one last review when September call notes are sent out for review

Schedule Next Call

Based on the poll responses, the majority wanted pre-scheduling all calls for a particular day (such as the first Tuesday of the month). By vote, the First Monday and First Tuesday of the month was the preference (tied at 8 out of 9 votes). For scheduling in the future, for November and subsequent calls, the first Monday of each month. The calls in the future will be the first Monday of the month at 2 PM Eastern/1 PM Central/noon Mountain/11AM Pacific

The third poll that was filled out concerns some options for accelerating the work group (such as more frequent calls, longer calls, etc.). The vote was overwhelmingly to leave the calling arrangement as we are currently doing at one call a month for 1 hour for the current future. In the meantime, Doug will try

and get the Collaborative more information on a regular basis and use interactive tools (such as Doodle Polls) where appropriate, and if that works for everyone.

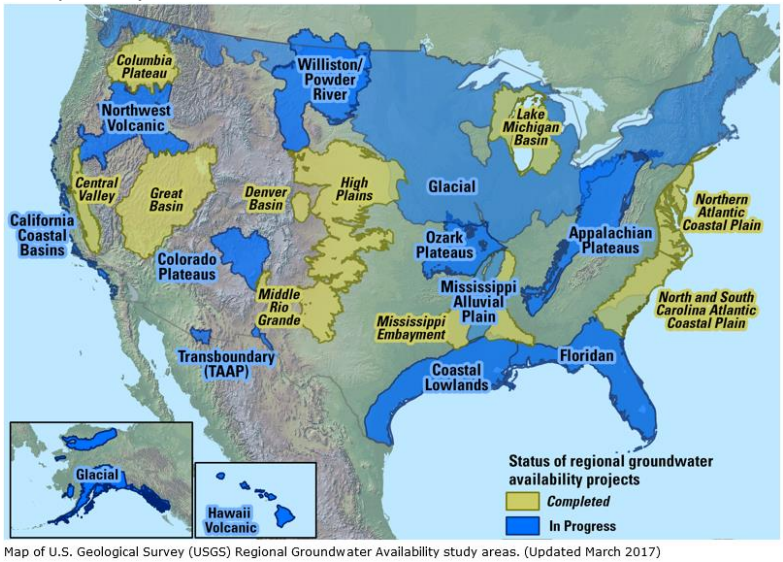
There was some discussion on the other USGS programs, specifically a request to provide more details on the Groundwater and Streamflow Information Program and the Water Availability and Use Science Program. Doug agreed to follow up and include extra information in the notes (see below).

Sara Larsen said states are interested in sharing streamgage data. What about Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI) joining this group. She mentioned working with Jeff (??) at Utah State University. A lot of the metadata are available in CUAHSI some variation.

ODEM Q data model to retain more metadata and export. WSWC is working with ODEM2 CAUSHI
Not just streamgage data, but also interested in other streamflow information? Doodle Poll?
Highways interested in other sources of data. Pilot in IA with using different sensors. Sophisticated groundwater model used for climate models. What about integration between groundwater and surface water models? Brian is interested in this from Highways.
Claudia NRCS is working with the NWS on snow melt changes and what is needed is more comprehensive analysis.
Dwayne Young from USEPA is working with several states. Doug is to contact and see if he can present next meeting. What is the interest of this group beyond streamgage data?

Peak flows, trends & possibly groundwater

Note, the following is additional information that Doug has provided on the Water Availability and Use Science Program (WAUSP). The WAUSP Below is a map showing where there are a number of focus areas studies that are focused on providing science to address water conflicts and increase the quality and quantity of water use data:



Map of U.S. Geological Survey (USGS) Regional Groundwater Availability study areas. (Updated March 2017)

Doug was awaiting for a briefing sheet from the program but information is available through the program web site at: https://www.usgs.gov/science/mission-areas/water/water-availability-and-use-science-program?qt-programs_l2_landing_page=0#qt-programs_l2_landing_page

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 Water Supply Paper 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/

Lins, H.F., USGS Hydro-Climatic Data Network 2009 (HCDN-2009), USGS Fact Sheet 2012-3047, http://pubs.usgs.gov/fs/2012/3047/pdf/fs2012-3047.pdf

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 within a State:

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

Massachusetts and Rhode Island - Zarriello, P.J., and Socolow, R.S., 2003, The U.S. Geological Survey Streamflow and Observation-Well Network in Massachusetts and Rhode Island: U.S. Geological Survey Open-File Report 03-277, 120 p.

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 – nothing since the 1980's.

Washington - Konrad, Christopher, and Sevier, Maria, 2013, Physiographic and land cover attributes of the Puget Lowland and the active streamflow gaging network, Puget Sound Basin, Washington: U.S. Geological Survey Data Series 815, *http://dx.doi.org/10.3133/ds815*

Streamgaging Evaluation within a Basin or Region:

Susquehanna River –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).

Upper Colorado River - Terry A. Kenney, Susan G. Buto, David D. Susong, 2011, USGS Scientific Investigations Report 2011-5081, https://pubs.er.usgs.gov/publication/sir20115081

Others:

Norris, J.M., Lewis, Michael, Dorsey, Michael, Kimbrough, Robert, Holmes, R.R. Jr., and Staubitz, Ward, 2008, Qualitative comparison of streamflow information programs of the U.S. Geological Survey and three non-Federal agencies: U.S. Geological Survey Open-File Report 2007–1426, 11 p., http://pubs.usgs.gov/of/2007/1426/

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

http://water.usgs.gov/osw/hcdn-2009/ USGS Hydro-Climatic Data Network (HCDN-2009)

Water Availability and Use Science Program

http://water.usgs.gov/watuse/ Water Use

http://water.usgs.gov/wausp/ Water Availability and Use Science Program

Water Resources Research Institutes (WRRI) Program

http://water.usgs.gov/wrri/index.php Main WRRI page

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