Subcommittee on Spatial Water Data

Meeting Details:

Date/Time: September 21, 2018, 1:00 - 2:00 PM Eastern Time

Location: Teleconference only (administered from USGS Headquarters, 12201 Sunrise Valley Drive, Reston, VA 20192)

PLEASE USE THIS LINK, THEN FOLLOW INSTRUCTIONS TO JOIN EITHER BY PHONE OR COMPUTER AUDIO: https://zoom.us/j/7055398097

If ONLY dialing in by telephone:
   Dial: 1-669-900-6833 or 1-646-558-8665
   Meeting ID: 705 539 8097

PLEASE FIRST CLICK THE LINK ABOVE TO JOIN THE CALL, THEN FOLLOW INSTRUCTIONS AND ENTER YOUR ATTENDEE ID WHEN PROMPTED IF DIALING IN BY PHONE. IGNORE THE WARNING THAT YOU MUST USE COMPUTER AUDIO TO BE HEARD. EITHER PHONE OR COMPUTER AUDIO SHOULD WORK.

NOTE: THIS WEB MEETING WILL BE RECORDED TO AID IN NOTE TAKING. THE NOTES ARE THE OFFICIAL MEETING RECORD.

Agenda

All Times Eastern Time Zone
1:00 - 1:05  Introductions for new attendees
1:05 - 1:25  “Marketplace” Work Group
1:25 - 1:50  Open Discussion
1:50 - 1:55  Announcements
1:55 - 2:00  Adjourn

Attendees

New Attendees
Returning Attendees

Al Rea, USGS (ahrea@usgs.gov)
Terra Haxton, US EPA (haxton.terra@epa.gov)
Dave Blodgett (dblodgett@usgs.gov)
Roland Viger (rviger@usgs.gov)
Candice Hopkins, USGS/ACWI (chopkins@usgs.gov)
Sarah Brennan, NASA Water Resources, Booz Allen (sarah.brennan@nasa.gov)
Steve Kopp, Esri
Jane Schafer-Kramer, CA DWR, jane.schafer-kramer@water.ca.gov
Sara Larsen (saralarsen@wswc.utah.gov)
Tad Slawecki (tad@limno.com)
Lauren Patterson (lauren.patterson@duke.edu)
Joseph Kirby (JKirby@Espassociates.com)
Sandra Fox, AWRA (sfox@sjrwmd.com)
Kevin McNinch (klmcninch@usgs.gov)
Mark Sondheim (mark.sondheim@canada.ca)
Jennifer McGee (jenna.mcgee@woodplc.com)
Greg Cocks (gcocks@usgs.gov)
Jim Kreft (jkreft@usgs.gov) (intermittent due to network issues)

1:05 - 1:25  “Marketplace” Work Group

Of possible interest to the group …

[W]e’ve been talking about getting data searchable in Google for a while - it looks like it's happening … here's an excerpt from an article on ZDNet:

[…] it gets worse if you don’t just need weather data. You have to locate the right sources, and then the right data at those sources. Wouldn't it be much easier if you could just use one search interface and just find everything out there, just like when you Google something on the web? It sure would, and now you can just Google your data, too.

The full article is at https://www.zdnet.com/article/google-can-now-search-for-datasets-first-research-then-the-world.

The link in the excerpt is to the Data Search portal - https://toolbox.google.com/datasetsearch; a Google story referenced elsewhere in the ZDNet article (https://www.blog.google/products/search/making-it-easier-discover-datasets/) notes that Ed Kearns (NOAA CDO) is a strong supporter and that many NOAA datasets are already
discoverable. There is also a developers' page at https://developers.google.com/search/docs/data-types/dataset.

Author of the article at google is Natasha Noy (noy@google.com).

Jim Kreft update

- Really interested in google dataset search
- Schema.org https://schema.org/docs/developers.html
- Starting to kick the idea of a water.gov up the line
- Foundations of Marketplace in USGS Core data presentation
  -

1:25 - 1:50 Open Discussion

Interesting article/opinion piece on flood mapping:

Study finds managed waterways are not isolated from effects of climate change
http://www.pnas.org/content/early/2018/07/31/1801026115
Fig. 1. (top) A large-scale modeling approach [Wing et al., 2018] estimates the nationwide distribution of people exposed to a 1-in-100-year flood to be about 3 times the estimate arrived at by (bottom) a local FEMA model approach.

Fun application of NHDPlus National Seamless: https://owi.usgs.gov/blog/furthest-water/

NHDPlus HR Deep Dive Recording from the NHD/WBD Advisory Call Recording of Zoom Conference.
NHDPlus HR Deep Dive Script

1. NHDPlus HR web page and status map [http://usgs.gov/NatHydroNHDPlus-HR](http://usgs.gov/NatHydroNHDPlus-HR)
   a. Interactive status web map
   b. Known Errors
   c. Data Dictionary

2. How to find the data on new web pages. [http://usgs.gov/NatHydroAccess](http://usgs.gov/NatHydroAccess)

3. Walk through vector tables in ArcCatalog

4. Open NHDplusHR_1601 project in ArcGIS Pro
   a. elev_meta
   b. Raster layers
      i. Elev_cm
      ii. shdrelief.jp2
      iii. Hydrodem (don’t use this for elevation!!)
      iv. Fdr
      v. Fac
      vi. filldepth
   c. NHD Layers
      i. Join NHDPlusFlowlineVAA to NHDPlusFlowline to access the VAAs
      ii. Show NHDFlowline by StreamOrder ([StreamOrder bookmark](#))
      iii. Start Flag (IsHeadwater) and Terminal Flag (IsNetworkEnd)
      iv. HydrologicSequence ([StreamOrder bookmark](#)) (all upstream segments have a higher number than the current segment’s number and all downstream segments have a lower number than the current segment’s number) [Used as ID](#)
      v. Selecting a dendritic network (StreamOrder = StreamCalculator) ([Braided Network bookmark](#))
      vi. PathLength (How Far Did Those Salmon Swim?, Sept 2015 Newsletter) ([PathLength bookmark](#)) - Difference in PathLength = PathLength between two flowlines
      vii. LevelPathID ([PathLength bookmark](#))
          1. Show Bear River LevelPath
          2. Show a tributary LevelPath
      viii. Profile plots

Dave Blodgett:
Refactoring NHDPlus network, to make the network better matched to the needs of hydrologic and hydraulic models. R package “NHDPlus Tools” in the works. [https://dblodgett-usgs.github.io/nhdplusTools/](https://dblodgett-usgs.github.io/nhdplusTools/) (Experimental status. Dave would like feedback.)
He has set up to read from a WFS of NHD features.

WFS for NHDPlus (HR or MR) is needed, but requirements are hard to define.

1:50 - 1:55  Announcements
AWRA National Conference
Baltimore Nov 4-8

1:55 - 2:00  Adjourn
Next meeting: October 19