

Hydro TWG Sept. 9, 2021

Participants:

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Update on USGS Hydrography Programs – Al Rhea

NHD Developments FY2021

- Pandemic/Working from home
 - USGS all working from home
- [NHDPlus HR](#) Beta finished for CONUS
 - Gives you an estimate of mean annual flow
 - Will be released as a formal data release (with a version number)
 - Will be the data set that is used in publications and be the main referenced data for NHD derived products
 - Gigantic geodatabase (around 20 gigabytes) for the whole country and several territories
 - Alaska is still being worked on
- New [newsletter](#) format and listserv
 - Is now a webpage
 - The email list is run by a listserv, can subscribe and unsubscribe from a link.
 - Just one list, no separate list for meetings
 - Newsletter has been going out about every 2 months
- Elevation derived hydrography (EDH)
 - Deriving hydrography from elevation data (LiDAR)
 - Future use as basis for an NHD update
 - Temporary product – to be replaced with 3DNTM
 - NSGIC ([NSGIC.org](#)) partnership on EDH
 - Webinars
 - Free [signup](#) for webinars
 - Interesting to see what the different states are doing with LiDAR data
 - Webinars are recorded
 - Will work with USGS on getting partnerships for getting new data developed
 - Idaho has not participated with NSGIC yet.
- Maintenance shutdowns
 - Moving servers and operations from Denver (2 weeks in April/May)
 - Switch from FTP to Globus (July and August)
 - FTP access was shut down and tools all changed to Globus
 - Some states have had trouble with Globus
 - Firewalls are a known problem

Our Future in 3D: The 3D National Topography Model and the 3D Hydrography Program

Please visit [here](#) for video of a similar presentation.

- 3D National Topography Model (3DNTM)
 - Will ultimately replace the individual datasets that we have now
 - Parallel to the 3DEP program
 - The program acquiring the LiDAR data across the country
- 3DNTM: Supports the Nation's Critical Applications
 - Focusing on building a system that integrates the data
 - Hydrography is defined by elevation as are watersheds
 - Hydrography based on Elevation data will replace current hydrography
 - NHD and WBD will eventually be retired
- 2 Calls for Action supporting 3DNTM will be coming out
 - The call for action documents have gone out for review
 - NSGIC was one of the places it went out for review
 - Call for Action is one of the ways to get the attention of Congress
 - What needs to be done and how much it will cost.
- 3D Hydrography Program (3DHP)
 - Current NHD Approach
 - A lot of data
 - Most data derived from the old Topo maps made in the 70's and 80's
 - Data is old and needs to be updated
 - Idaho has been a very active steward in updating
 - Consistency of datasets across states is declining and is a mixture of scales
 - NHD difficult to work with on national level and showing its age
 - Hydrography Derived from Elevation Offers a Solution
 - 3DHP will provide national consistency while meeting local needs
 - Also provide standardized hydrography data nationally
 - Congress has to approve the program for enough funding
 - Working budget was set 15 years ago
 - First step, creating hydrography from LiDAR data
 - Base data for hydrography is the NHDplus HR
 - Baseline data sets are being updated all the time
 - 1 meter elevation data (1:5000 scale in the end goal)
 - Will use 5 meter IFSAR data in Alaska
 - A lot of economic benefit to modernizing our hydrography program
 - Legacy program would retire in 3-4 years
 - Building 3D Hydrography Program
 - Putting together partnerships with other agencies and USGS
 - Competitive project between proposals
 - Will take an injection of money to do the programs
 - 3DHP Roles

- State and local representation will be needed
 - Still need your knowledge to make the data as good as it can be
 - 3DHP Data Enhancements
 - Connections between ground data and surface data
 - Fix the overlapping categories
 - Looking at storm water systems in urban areas
 - Working on the right level of detail on the National dataset vs. the local
 - Building the 3DHP Infrastructure (USGS near future focus)
 - This includes getting the HEM tool on a web application
 - Analogous to using street map tools (like Google maps)
 - Will make water data easier to find
 - New concept being put out – Internet of Water
 - Expect to hear more about this in the future
 - Beta is nearly ready for distribution
 - Paperwork is slowing the process

Questions?

- East coast is almost fully covered with 3DEP, is the West projects coming soon?
 - Funding is very limited. Haven't completed pilot programs yet.
 - Current map for LiDAR coverage
 - Some of it is not useable yet, as it is new.
 - Still getting funding for LiDAR, but it is filling in pretty fast
- Is LiDAR data available for use?
 - Yes. Go to [The National Map](#)
 - Look under elevation products on the USGS national map
 - The brown polygons show the data available right now.
 - Also available at the [Idaho LiDAR Consortium](#)

Updates – Danielle Favreau

- Article in the NHD Newsletter (Vol. 20, Issue 5/6) titled “Which NHD Product Do you need and which do you have?” that includes this table as well as some nice resources pertaining to each dataset. If you have questions about which NHD product to use, this is a good place to start.
- Staged Products
 - USGS moving to new process to hopefully solve some ongoing issues.
 - Check your dates on the downloads – Use datasets dated at least Sept. 2021.
 - Statewide dataset is still broken
- Markup Application is down right now. USGS expects it to be back up in a few days.
- NHD Editor Tools are now requiring ArcGIS10.7.1
- Other business
 - Congrats to Al on his impending retirement!

Next Hydro TEM: March 10, 2022