

USGS National Hydrography Dataset Newsletter

Vol. 18, No. 7, July 2019

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New NHDPlus High Resolution Value-Added Attribute Webpage

Contact: Al Rea (ahrea@usgs.gov), Becci Anderson (rdanderson@usgs.gov)

The NHD's analytical power comes from the flow network embedded in it. The NHDPlus High Resolution also has this analytical power, and it is further boosted by attributes called the Value-Added Attributes (VAAs) - a number of pre-calculated network characteristics that make network analysis easier and richer.

Check out the new new [Value-Added Attributes \(VAAs\) webpage](#) available on the [NHDPlus HR webpage](#) of the [USGS National Hydrography website](#) for descriptions of several of these VAAs, including:

- [HYDROSEQ](#)
 - [UPHYDROSEQ](#) and [DNHYDROSEQ](#)
 - [DNMINORHYD](#)
 - [DNDRAINCOU](#)
 - [TERMINALPA](#)
 - [PATHLENGTH](#)
 - [STARTFLAG](#) and [TERMINALFL](#)
 - [DIVERGENCE](#)
 - [ARBOLATESU](#)
 - [RTNDIV](#)
 - [FROMNODE](#) and [TONODE](#)
 - [STREAMLEVE](#)
 - [LEVELPATHI](#)
 - [UPLEVELPAT](#) and [DNLEVELPAT](#)
 - [DNLEVEL](#)
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Important Reminder about USGS Hydrography Tool Upgrades

Contact: NHD general email for NHD tools (nhd@usgs.gov), Lily Niknami for WBD tools (lniknami@usgs.gov)

If you have not already done so, please upgrade to the new TLS compliant USGS Hydrography Tools as soon as possible:

- WBD Update Tools v2.9.1.3
- NHD Update Tools v6.7.1.0
- NHD Utilities v3.4.1.0
- Markup Reviewer v1.3.0.0
- NHD Geoconflation Tools v3.4.1.0 or higher

TLS 1.0 restrictions are being put in place and old tool versions may no longer function properly. Please contact your NHD/WBD POC with any questions, and thank you for your continued patience and cooperation.

Please see the [June 2019 National Hydrography Dataset Newsletter](#) for more detailed information.

NHD Training – August 2019

Contact: Joel Skalet (jskalet@usgs.gov), Bill Smith (wjsmith@usgs.gov)

NHD Training for August 2019 has been scheduled. You may check the Events Calendar on the Hydrography Data Community (HDC) site for details.

Principal Stewards should be contacted for approval prior to submitting a request for training. The current training being conducted is using ArcGIS 10.5.1 and NHD Update Toolbar v6.7.1.0. The next available NHD training will be NHD Update Tool Training Part 1 on August 15, and NHD Update Tool Training Part 2 on August 29, 2019.

NHD Basics is a prerequisite class that all attendees are required to complete prior to moving to NHD Update Tool Training sessions. NHD Basic Training begins at 10:30 AM Eastern Time and runs for approximately two and a half hours. This session covers: Basic NHD Background – History of the NHD, NHD Stewardship, resolutions of the NHD, the NHD Model, important concepts in the NHD including: permanent Identifiers, reach codes, flow network, important NHD websites, supporting software, NHD User Guide, NHD National Hydrography Dataset User Account, NHD myUSGS Hydrographic Data Community, and checking out data for editing.

NHD Update Tool Training Part 1 begins at 10:30 AM Eastern Time and runs for five hours (including breaks). Part 1 will be a review of the entire editing process and a complete discussion of the NHD Update Toolbar,

including loading data, initial QC, resolving 'Invalid Geometry', and using the tool to add geometry, modify geometry and attributes, and delete geometry.

NHD Update Tool Training Part 2 begins at 10:30 AM Eastern Time and runs for five hours (including breaks). Part 2 (follow up to Part 1) will be a review of the Quality Control (QC) process including reviewer table, a review of Initial QC, Severity 1 versus Severity 3 errors, discussion of the errors one might see in the NHD and how to resolve those errors. We will then discuss Final QC and uploading your edits to the NHD National Geodatabase.

For more information about this training please contact Tatyana Dimascio (tdimascio@usgs.gov, 303-202-4206), Joel Skalet (jjskalet@usgs.gov, 608-238-9333 x152), or Bill Smith (wjsmith@usgs.gov, 573-308-3593).

NHD, WBD, and NHDPlus HR Status Updates

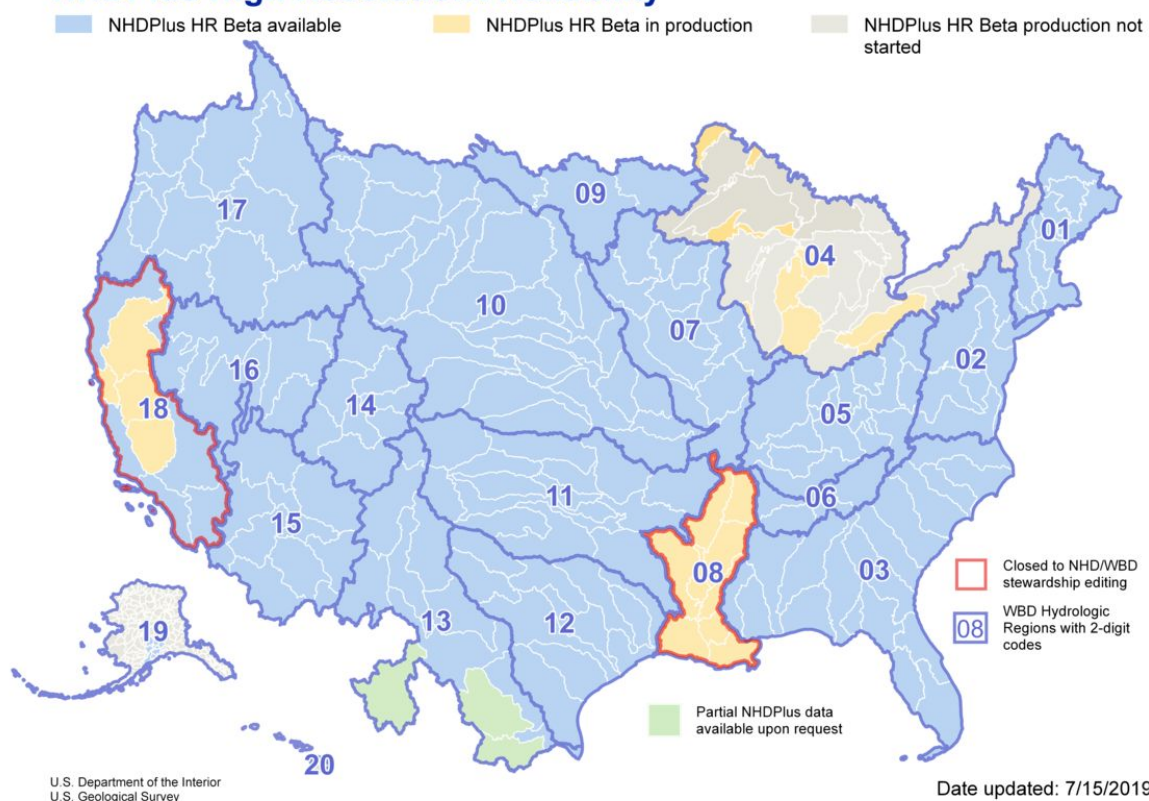
NHDPlus High Resolution Beta Production Status

Contact: Karen Adkins (kadkins@usgs.gov), Hayley Thompson (hnthompson@usgs.gov)

The map below provides an overview of NHDPlus HR availability. This status map is updated frequently on the [NHDPlus HR webpage](#).

- Blue areas - NHDPlus HR Beta is currently available and Beta QC is either in process or completed for these areas. Please see the [NHDPlus HR Beta QC](#) section of the [NHDPlus HR webpage](#).
- Yellow areas - The NHDPlus HR Beta is in production and the USGS is currently seeking volunteers for the upcoming Beta QC for these areas. Please see the [NHDPlus HR Beta QC](#) section of the [NHDPlus HR webpage](#) for more information. Please contact the [NHD/WBD Point of Contact](#) in your area for more information on the status of NHD and WBD editing in these areas.
- Gray areas - NHDPlus HR Beta will be produced at a later date. These areas are currently open for NHD and WBD editing.
- Green areas - The NHDPlus HR Beta was produced using contributing areas in Mexico to improve the NHDPlus HR Beta along the Rio Grande River. Minimal hydrography was included in the Beta build but will be improved when the areas are refreshed. The NHDPlus HR Beta production data with minimal hydrography content is available upon request.
- Red outline - These areas are currently closed to NHD and WBD editing. Please contact the [NHD/WBD Point of Contact](#) in your area for more information.

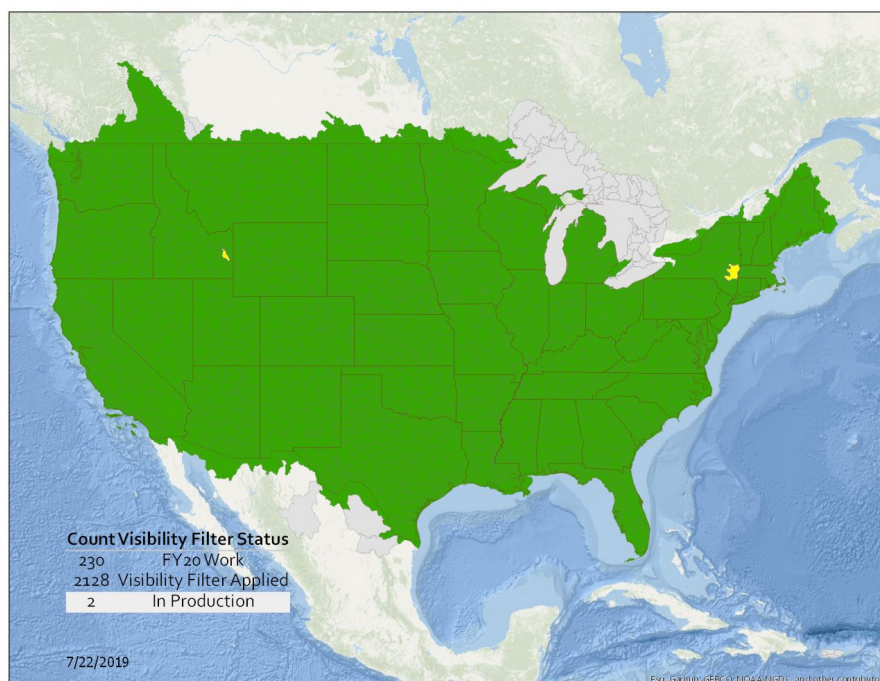
NHDPlus High Resolution Availability



NHD and NHDPlus HR VisibilityFilter Cartographic Generalization Status

Contact: Travis Landauer (tlandauer@USGS.gov)

Population of the VisibilityFilter is nearly complete for CONUS! The VisibilityFilter attribute allows vector data features to be filtered to eight approximate map scales. A given VisibilityFilter coded-value indicates that the feature is appropriate for use at approximately the defined scale and at all larger scales. Two separate methods to display NHD features with the VisibilityFilter attribute for NHDFlowline, NHDWaterbody, NHDArea, and NHDLine feature classes are described on the [VisibilityFilter webpage](#).



The population of VisibilityFilter requires several climatic and physiographic variables that are not available in the same form outside of CONUS. Therefore, additional work is required before VisibilityFilter can be populated for Alaska, Hawaii, and the Territories.

VisibilityFilter population continues in the areas shown in yellow below:

VisibilityFilter Currently In Work

- Regions – 02 (1 HUC), 17 (1 HUC)

Future Work

- 04 - working with WBD group on newly created HUCs around Great Lakes
- Region 19, 20, 21

WBD 4-digit Improvement Status

Contact: Kimberly Jones (kjones@usgs.gov), Lily Niknami (lniknami@usgs.gov)

The WBD 4-digit Improvement Project is identifying and correcting hydrologic unit boundary issues in the WBD at the 4-digit level in support of NHDPlus HR production. Instances where the NHD and WBD intersect are being reviewed and invalid intersections are being addressed when appropriate. All proposed major updates to the WBD will be coordinated with the appropriate WBD state steward prior to implementation.

WBD 4-digit Improvement - Work Completed

- Regions - 01, 02, 03, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 20
- Pilot areas - 0903, 041504, 190204, and 190205
- Mexico contributing hydrologic units in Region 13
- Region 19 - 19020301, 19020302, 19020202, 19020601, and 19020602, 19020800

WBD 4-digit Improvement - Currently In Work

- Region 04
- Canada contributing hydrologic units in Region 04

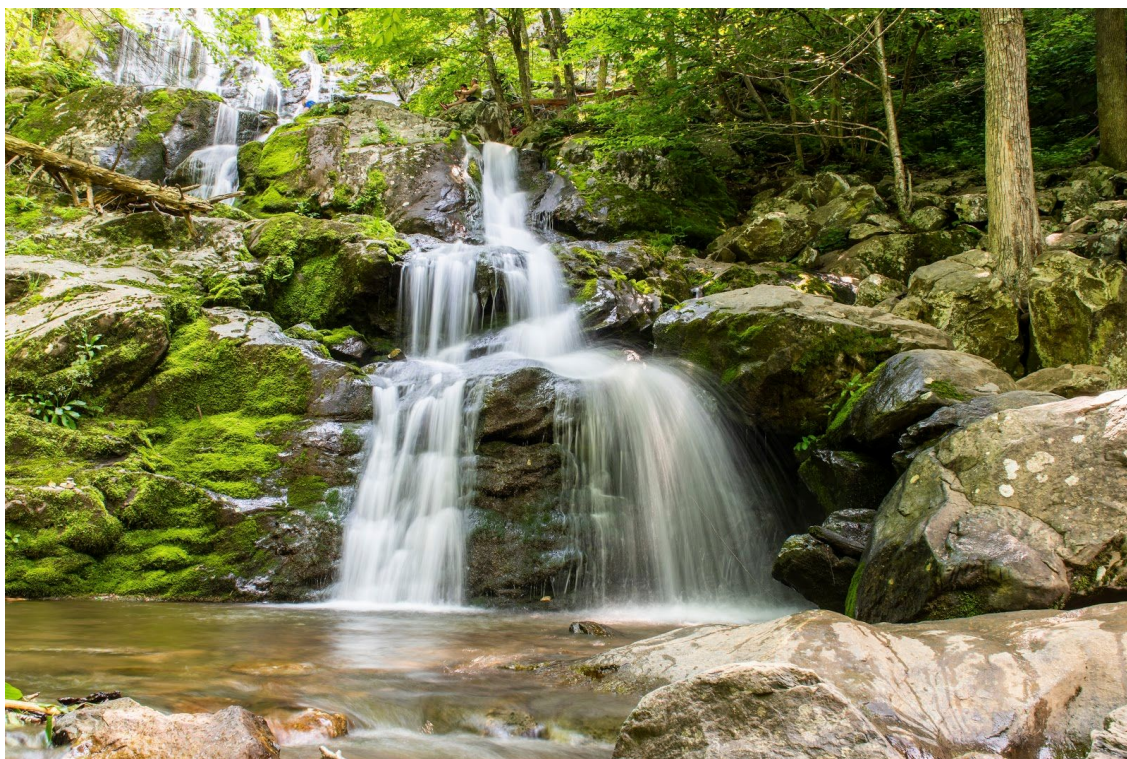
WBD 4-digit Improvement - Future Work

- Regions - 19, 21 and 22

Photo of the Month

The Photo of the Month was taken by Alexander Jonesi and is of [Dark Hollow Falls](#) (ReachCode 02080103004038) in Shenandoah National Park in Virginia.

We'd love to see photos of the hydrology near you or from your travels! Please send submissions to Alexander Jonesi (ajonesi@usgs.gov).



Hydrography Quiz

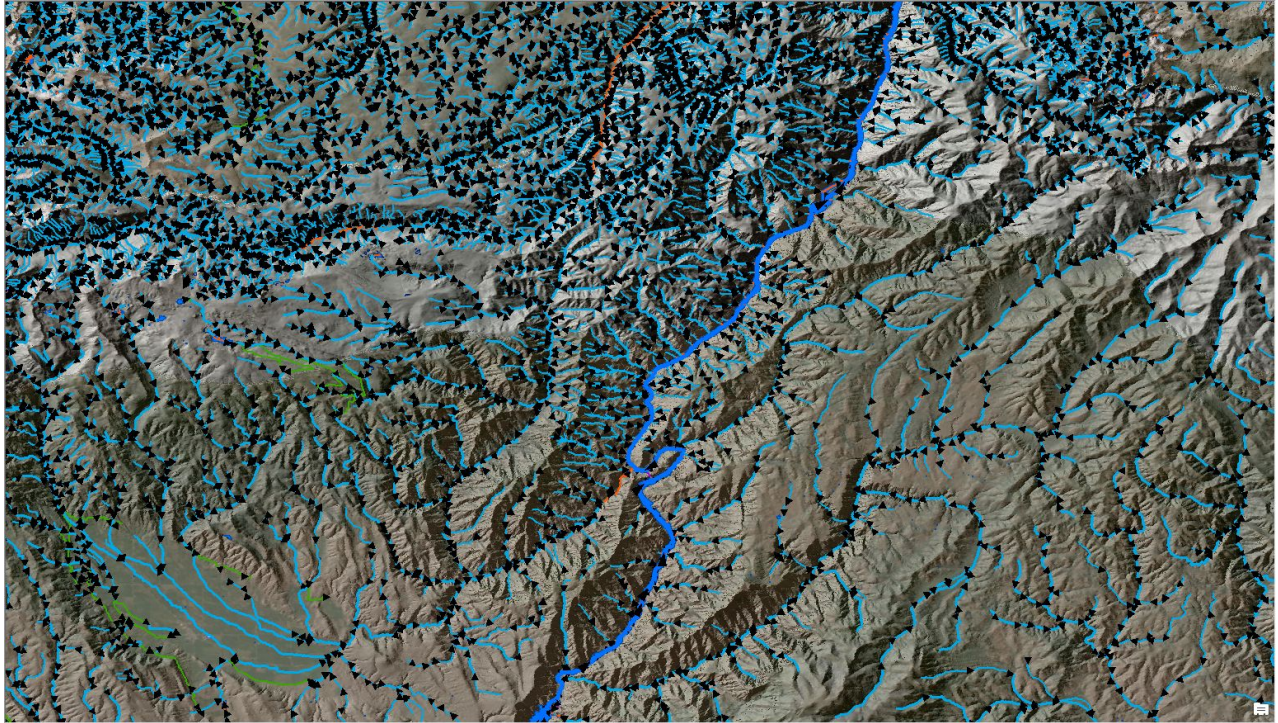
Email your answer to Becci Anderson (rdanderson@usgs.gov)

Congrats to **Bill Samuels**, who won this month's quiz with the correct answer of **Lake Ronkonkoma**. Bill started his career with the USGS in Reston, working on oil spill modeling. He has been with SAIC and Leidos for the past 35 years. They developed a spill modeling program called ICWater which uses the NHDPlus coupled with real-time gage data to model time-of-travel and dispersion of toxic spills in rivers and streams. Bill grew up on Long Island not far from Lake Ronkonkoma! Congrats again, Bill, and thanks for your work on ICWater - it's great!

Thanks to everyone else who played along: Dan Button, Wendy Steinberger, Matt Davis, Neil Trenk, Jim McDonald, Jon Becker, Roger Barlow, Evan Hammer, Angie Southwould, Thomas Denslinger, and Gary Whelan.

This month's quiz (by Alex Kaufman):

This area has evidence of inhabitants dating back to over 10,000 years ago. This river has more than 10 dams on it and had more dams proposed before being protected from further development. This segment of the river is the deepest river/gorge in the United States.



Upcoming USGS Hydrography Calls, Trainings, and Meetings

Date	Time	Event
Aug 14	12:00 PM ET	WBD Technical Exchange Meeting (TEM)
Aug 15	10:30 AM ET	NHD Update Tools Training (Part 1 - editing)
Aug 27	1:00 PM ET	NHD/WBD Advisory Call
Aug 29	10:30 AM ET	NHD Update Tools Training (Part 2 - QC)

To be added to the NHD/WBD Advisory Call email list, please contact nhd@usgs.gov. For more information on technical exchange meetings and trainings, please see the [Hydrographic Data Community \(HDC\)](#) site. For access to the HDC site, please contact Lily Niknami (lniknami@usgs.gov).

Thank you to this month's USGS National Hydrography Dataset Newsletter contributors:

Joel Skalet, Bill Smith, Lily Niknami, Karen Adkins, Hayley Thompson, Kimberly Jones, Travis Landauer, Alex Kaufman, Vanessa Baez, Alexander Jonesi, Al Rea, Sue Buto, and Becci Anderson.

Join Our Community!

For more information, to sign up for the newsletter, or to contribute, please contact Becci Anderson, Hydrography Management and Planning Lead, at rdanderson@usgs.gov.

Visit us anytime at usgs.gov/NatHydro and follow us on Twitter @USGSNHD

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