

# USGS National Hydrography Dataset Newsletter

Vol. 17, No. 11, November 2018

[NHDPlus V2 Catchment Attributes Released](#)

[NHD Training – January 2019](#)

[Timelines in Markup Summary Notifications](#)

[NHDPlus HR Ingredient Dataset Status - WBD 4-digit Improvement Project](#)

[NHDPlus High Resolution Beta Production Status Update](#)

[Hydrography Photo of the Month](#)

[NHD Quiz](#)

[Upcoming USGS Hydrography Calls, Trainings, and Meetings](#)

---

## NHDPlus V2 Catchment Attributes Released

*Contact: Mike Wiczorek ([mewieczo@usgs.gov](mailto:mewieczo@usgs.gov))*

USGS has released a series of data sets of natural and anthropogenic landscape features linked to NHDPlus Version 2.1's (NHDPlusV2) approximately 2.7 million stream segments, their associated catchments, and their upstream watersheds within the conterminous United States. These data were developed by the Hydrologic Systems Team (HST) within the the United States Geological Survey (USGS) National Water Quality Program (NWQP). The data were linked to four spatial components of NHDPlusV2: individual reach catchments, riparian buffer zones around individual reaches, reach catchments accumulated downstream through the river network, and riparian buffer zones accumulated downstream through the river network. All data can be linked to NHDPlus using the COMID field in these tables and the ComID in the flowline shapefiles or FEATURID in the catchment files in the NHDPlus data suite. The datasets were derived using a topologically reconditioned version of the NHDPlusV2 routing network (Schwarz and Wiczorek, 2018). This database is used for the routing of upstream watersheds only. No cartographic changes were made to the original NHDPlusV2 in either the flowline or reach catchment line work. These data are listed under 11 themes which include:

1. Chemical, characteristics such as nitrogen application or toxicity weighted use.
2. Climate and Water Balance Model, characteristics such as model outputs of runoff, actual evapotranspiration or ground water storage.
3. Climate, characteristics such as mean precipitation, temperature, relative humidity, or evapotranspiration.
4. Geology, characteristics such as Hunt or Soller surficial geologies.
5. Hydrologic, characteristics such as base flow or infiltration excess overland flow.
6. Hydrologic Modifications, characteristics such as dam storage or tile drains.
7. Landscape, land cover characteristics such as NLCD, CDL or NWALT.
8. Population Infrastructure, characteristics such as population, housing, and road densities.

9. Regions, characteristics such as EcoRegions, Physiography or Hydrologic Landscapes.
10. Soils, characteristics such as STATSGO, soil salinity, and soil restrictive layer.
11. Topographic Characteristics, characteristics such as basin area, slope and elevation

These data allow researchers and managers to acquire landscape information for both catchments (i.e., the nearby landscape flowing directly into streams) and full upstream watersheds of specific stream reaches anywhere within the conterminous United States without having to perform specialized geospatial processing.

The data and metadata are available from the [USGS ScienceBase Catalog](#).

---

## NHD Training – January 2019

*Contact: Joel Skalet ([jjskalet@usgs.gov](mailto:jjskalet@usgs.gov))*

It's never too late to join us for training in the coming months!! Check the [Events Calendar](#) on the Hydrographic Data Community if you're interested. Where they exist, Principal Stewards in each state should be contacted for approval prior to submitting a request for training. The current training is being conducted using ArcGIS 10.5.1. The next available NHD Training will be January 10, 17, and 24.

**NHD Basics** is a prerequisite class that all attendees are required to complete prior to moving to NHD Update Training sessions. Training begins at 9:30am Central Time and runs for approximately 2 and a half hours. This session covers: Basic NHD Background – History of the NHD, NHD Stewardship, Resolutions of the NHD, The NHD Model, and Important concepts in the NHD, including: Permanent Identifiers in the NHD, Reachcodes in the NHD, Flow Network in the NHD, Important NHD websites, Supporting Software, NHD User Guide, NHD User Account, NHD MYUSGS Hydrographic Data Community, and Checking out data. Please contact your Regional POC to schedule training.

**NHD Update Tools Training Part 1** begins at 9:30am Central Time and runs for 5 hours (breaks included). 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, Reviewer table, resolving 'Invalid Geometry', and using the tool to add geometry, modify geometry and attributes, delete geometry, import geometry, and vertical relationships.

**NHD Update Tools Training Part 2** begins at 9:30am Central Time and runs for 5 hours (including breaks). Part 2 (follow up to Part 1) will be a review of the 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 your Regional NHD POC or Joel Skalet, [jjskalet@usgs.gov](mailto:jjskalet@usgs.gov) (608) 238-9333 x. 152.

## Timelines in Markup Summary Notifications

Contact: Tatyana DiMascio ([tdimascio@usgs.gov](mailto:tdimascio@usgs.gov))

Markup summary notification emails will have a few changes starting with the messages scheduled to go out on December 1st. The notifications will continue to provide the summary of markups that need to be reviewed (“Submitted” status) or edited (“In Progress” status). In addition, the message requests that NHD/WBD partners who have limited capacity to perform validation or editing within two months notify their USGS NHD/WBD POC by the 15th of the month. All markups that remain unvalidated or unedited two months after the date of the message, will automatically go into the queue for validation and editing work to be performed by USGS. The timelines are necessary to continue the markup workflow in support of NHD and WBD maintenance and NHDPlus HR production.

If you need further assistance with the Markup Application or Markup Reviewer, please contact [markup@usgs.gov](mailto:markup@usgs.gov)

---

## NHDPlus HR Ingredient Dataset Status - WBD 4-digit Improvement Project

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

### WBD 4-digit Improvement - Currently In Work

- Region 04
- Canada contributing hydrologic units in Region 04
- Region 19 - 19020301, 19020302, 19020601 and 19020602

### WBD 4-digit Improvement - Future Work

- Regions - 19, 21 and 22

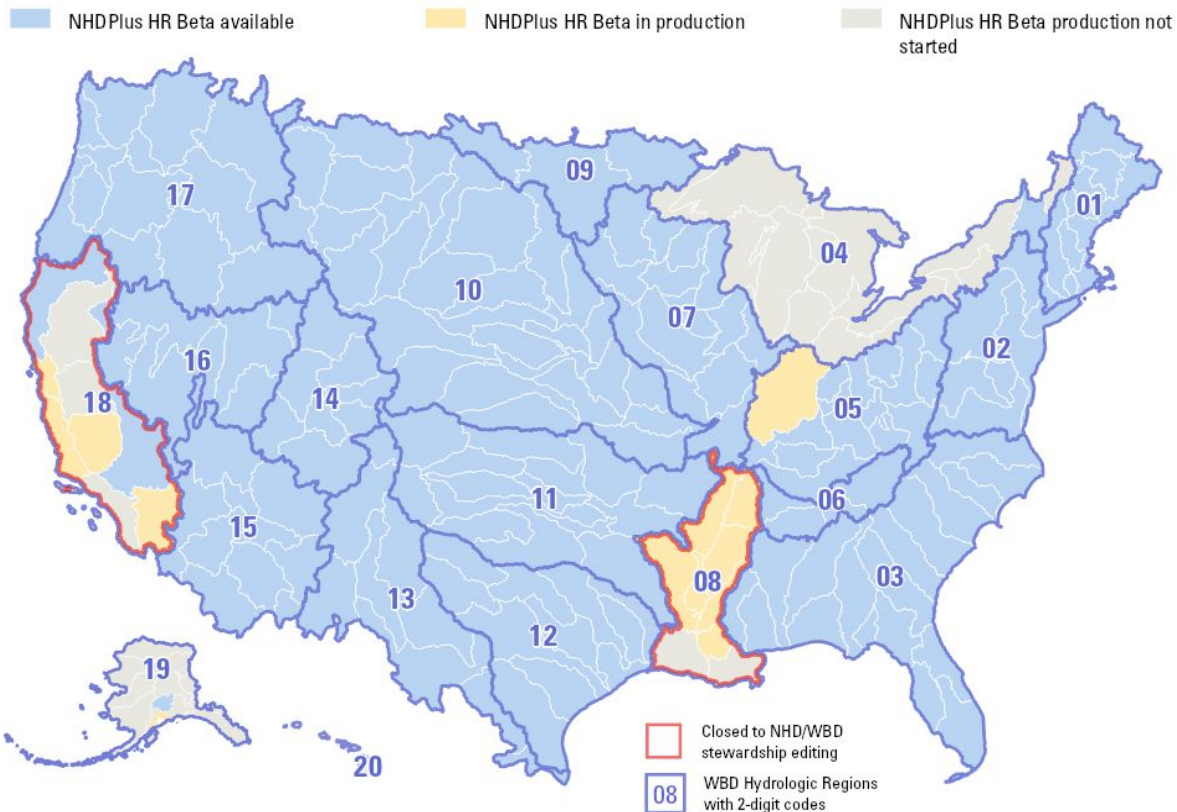
# NHDPlus High Resolution Beta Production Status Update

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

The map below provides a general overview of NHDPlus HR availability. This status map is updated frequently on the “Where is NHDPlus HR Available?” section of 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. Please see the general processing schedule on the [NHDPlus HR webpage](#) for more information. These areas are currently open for NHD and WBD editing.
- 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



U.S. Department of the Interior  
U.S. Geological Survey

Date updated: 11/26/2018

## Hydrography Photo of the Month

Morning mist on the [Carson River](#) looking south toward the [Carson Range](#) and [Jobs Peak](#) near [Genoa, NV](#).  
(Photo by Sue Buto)



---

## New Release of NHD Update Tool Coming Soon

Contact: [nhd@usgs.gov](mailto:nhd@usgs.gov)

An enhanced and improved NHD Update Tool will be coming your way soon! The new build will be compatible with ArcMap 10.5.1 and will address security concerns as well as provide improved efficiency to the editing process.

## NHD Quiz

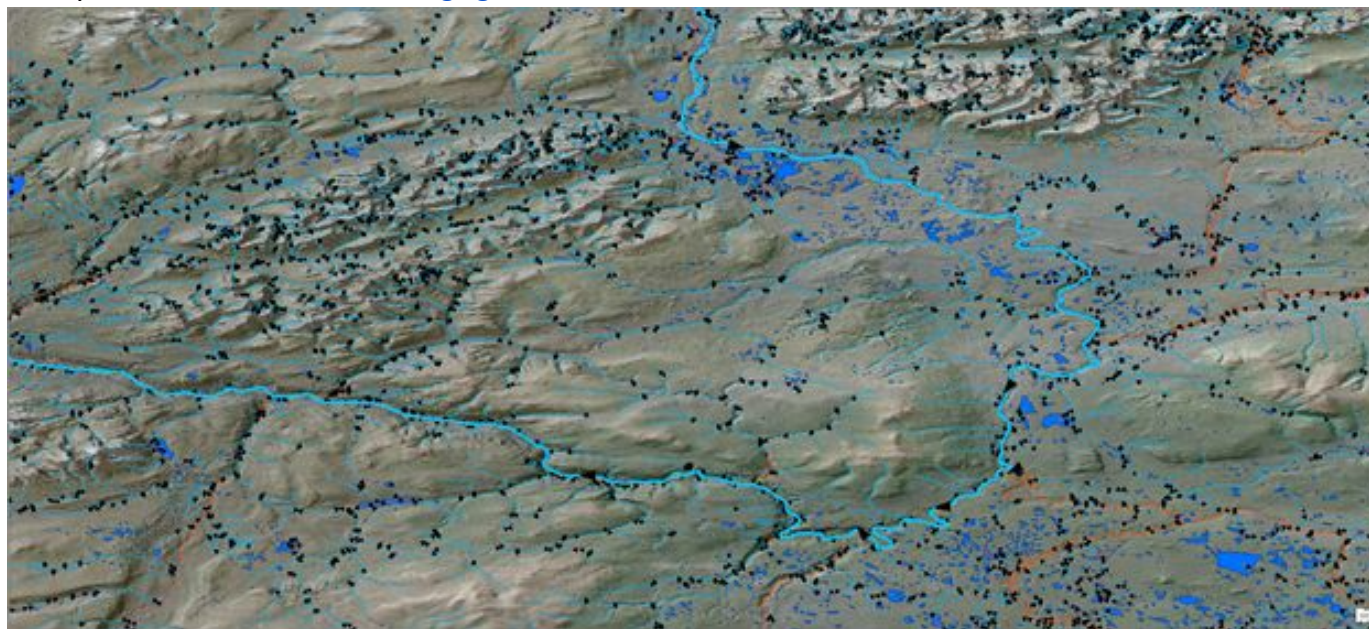
Contact: [nhd@usgs.gov](mailto:nhd@usgs.gov)

**Joshua Keeley** was the first to correctly identify the **Cahawba River** as the answer to last month's NHD quiz. Joshua Keeley is a Hydrogeologist with the New Hampshire Geological Survey (NHGS) and serves as the New Hampshire Principle Steward of the National Hydrography Dataset (NHD). Josh specializes in glacial geology and is currently involved in surficial geologic mapping, maintaining the NHD, maintaining NHGS's Groundwater Monitoring Network, and hydrologic modeling of NH rivers. Josh got his bachelor's degree in Geoscience from the University of Rhode Island in 2008 where he focused on glacial geology and sedimentology. He earned his master's degree in Geology from Idaho State University in 2011 where he studied Neoproterozoic glacial strata and Basin and Range tectonics. He recently joined the NHGS after six years of consulting in various fields from Alaska to Panama including gold exploration, geothermal exploration, and stream assessment.

Others who correctly identified the Cahawba River were Mark Sommer, Vamshi Raghu, James Falcone, David Straub, Thomas L Denslinger, and Kuba Bednarek.

**Question:** The river below is a popular sport fishing location for salmon, trout, and more...if you can get to it. What is the name of this large river?

Send your answer to [saichele@usgs.gov](mailto:saichele@usgs.gov).



## Upcoming USGS Hydrography Calls, Trainings, and Meetings

Date	Time	Event
Dec. 5	11:00 CST	NHD Technical Exchange Meeting
Dec. 12	11:00 CST	WBD Technical Exchange Meeting

To be added to the NHD/WBD Advisory Call email list, please contact [nhd@usgs.gov](mailto: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](mailto:lniknami@usgs.gov)).

---

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

Tatyana Dimascio, Lily Niknami, Karen Adkins, Ray Postolovski, Hayley Thompson, Kimberly Jones, Alex Kaufman, Joel Skalet, Al Rea, Susan Buto, and Steve Aichele.

## Join Our Community!

For more information, to sign up for the newsletter, or to contribute, please contact Steve Aichele, Acting National Hydrography Co-Lead, at [saichele@usgs.gov](mailto:saichele@usgs.gov).

Visit us anytime at [usgs.gov/NatHydro](https://usgs.gov/NatHydro) and follow us on Twitter [@USGSNHD](https://twitter.com/USGSNHD)

*Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.*