

USGS National Hydrography Dataset Newsletter
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By Jeff Simley, USGS

The NHD at the 2007 ESRI User Conference

A NHD Special Interest Group meeting was held again this year at the ESRI User Conference in San Diego, California. The meeting was attended by about 30 people. Topics included: (1) a review of the state caucus recommendations from the NHD Stewardship Conference April 24-26 (see the May 2007 NHD Newsletter), (2) the proposal for GUID implementation (see below), (3) the proposal to no longer support the NHDinARC distribution format (see the May 2007 NHD Newsletter), (4) moving to ArcGIS 9.2 (see the July 2007 NHD Newsletter), (5) the need for technical information on the stewardship web pages, and (6) the need for pre-validate stewardship edits before they are sent to the USGS.

Joint U.S./Canada Subbasin

The NHD data making up the St. Croix subbasin, 01050001, draining into the Atlantic Ocean on the Northeast tip of Maine have been extended to include the drainage in New Brunswick, Canada making up the greater international St. Croix hydrologic unit. This has been an initiative of the International Joint Commission, its International St. Croix River Board, Department of the Environment New Brunswick, Environment Canada, St. Croix International Waterway Commission, Service New Brunswick, U.S. Army Corps of Engineers, and the U.S. Geological Survey. The subbasin was created by harmonizing data from the National Hydrography Dataset and Service New Brunswick GIS layers to create an International Hydrography Dataset. The data is also available in the NHD model and is now an integral part of the NHD. Some work remains, particularly the addition of Canadian names. You are welcome to inspect an NHDinGEO version of this dataset at ftp://nhdftp.usgs.gov/NHD_HUC/St_Croix.zip or go to <http://nhd.usgs.gov/data.html>, go to the viewer, and download 01050001.

NHD State Advisory Committee

The state caucus at the NHD Stewardship Conference in Denver, Colorado, April 26 produced an action to form a Stewardship Advisory Council made up of representatives of the states. One person will represent each of the nine stewardship areas of the country to create a nine-person council. Appointed at the meeting were: Region 1 (AK, WA, OR, ID, MT) – Sandy Thiel, Idaho; Region 2 (CA, NV, UT, AZ, HI) – Cindy Clark, Utah; Region 3 (WY, NE, SD, ND, MN) – Paul Caffrey, Wyoming; Region 4 (CO, NM, TX, OK, LA) – Gar Clark, New Mexico/Erika Boghici, Texas; Region 5 (KS, MO, AR, IL, IA, WI) – Cynthia Ragan, Arkansas; Region 6 (TN, KY, IN, OH, MI)– TBA (need volunteers); Region 7 (NY, CT, RI, MA, VT, NH, ME) – TBA (Stewards would like to meet to make recommendations); Region 8 (PA, NJ, WV, VA, MD, DE, NC) – Kurt Donaldson, West Virginia/ Debbie Sullivan, Delaware, Sandy Schenck as back up to Debbie Sullivan; Region 9 (MS, AL, GA, FL, SC) – Phillip Henderson, Alabama/David Anderson, Florida. See the stewardship link below for a map of the stewardship regions.

New Look for NHD Web Page

The NHD Home Page has been redesigned to comply with new requirements at the USGS. Be sure to take a look at <http://nhd.usgs.gov>. Over the next several months the NHD web site will be incrementally upgraded to improve its capabilities and better serve users. The first major enhancement is being made to the stewardship tab. See below for more details.

New Stewardship Web Pages

New content is now available on the NHD website concerning the stewardship of the NHD. You can access this by going to <http://nhd.usgs.gov> and clicking on the Stewardship tab. Following an introductory statement you can click on the link at the bottom which will take you to the stewardship website <http://webhosts.cr.usgs.gov/steward/>. A map of the U.S. allows you to click on any state to get contact information. A series of tabs allows you to get more information about (1) The Stewardship Process, (2) Training Schedule, (3) Submitting Updates, (4) Request Maintenance, (5) Report NHDGeoEdit Bugs, (6) Download NHD Software, (7) Newly Incorporated Datasets, (8) Scheduled Downtime, (9) Glossary, and (10) Frequently Asked Questions. Comments should be sent to Steve Char at sjchar@usgs.gov.

Proposal to change NHD COMID identifier to GUID

The USGS is proposing to change the ComID NHD feature identifier from the current integer based ComID to the hexadecimal text sequence representation of Globally Unique Identifiers by the end of 2007. This change is being proposed to allow NHD cooperators the ability to create unique permanent identifiers locally. The current system necessitates that the cooperators apply temporary ComIDs to new data. Permanent ComIDs are not administered until the data is returned to the USGS and loaded into its national dataset. Alternatives to this approach could include a ComID service available to cooperators, but the USGS is proposing a less centrally managed approach. The new GUID identifier field would be stored as a 40 character string and labeled "Permanent_Identifier". The ComID field would then be dropped. For existing data, present COMID values would be converted into string values and moved to the Permanent_Identifier field. New data would use pre-described algorithms to populate the Permanent_Identifier field with a GUID. The type change of this feature identifier will also necessitate the type change of other fields that store ComIDs. This change would not affect the current ReachCode identifier system which provides permanent unique surface water identification that transcends scales for the purpose of addressing related event data. Comments should be sent to Dave Hughes at drhughes@usgs.gov.

NHDPlus Upgrades

The EPA/USGS NHDPlus team has been busy at work creating a number of upgrades. They are pleased to announce many new things about NHDPlus: (1) A brand new website look, content and functionality, (2) NHDPlus in 8-digit HUC packages, (3) New and greatly improved stream order attribute, and (4) Various NHDPlus component data corrections. Visit www.horizon-systems.com/nhdplus for this and other news about NHDPlus. In the upcoming months, the team will be announcing new NHDPlus tools: (1) NHDPlus Append, (2) Basin Delineation, and (3) Catchment Attribute Allocation and Accumulation

Completion of the High Resolution NHD

There are now 14 subbasins remaining to be completed out of a nationwide total of 2,259. It is expected that 12 of these will become available in mid-July and the remaining 2 will be available at the end of July. The availability of nationwide coverage was planned five years ago to be completed in December, 2006. The fact that it will become available only seven months, or roughly 10%, beyond estimates is a notable achievement and a credit to the employees working in the NHD partnership.

USGS Competitive Sourcing Study Cancelled

A study to commercialize USGS mapping operations known as Office of Management and Budget Circular A-76 has been cancelled by the Department of Interior. The initiative was part of a strategy to

modernize geospatial production activities and restructure the workforce to meet modern day requirements for geospatial operations. Many of these objectives have been met and now an alternative approach will be pursued to continue to develop more efficient and streamlined operations. The study has had an impact on the USGS NHD project. The USGS NHD team now looks forward to restructuring and staffing its operations to fully support a data stewardship mode of operation.

NHD Documentation

Look for a new and revised set of NHD documentation in draft form available for your review and comments. The documents: (1) [Standards for National Hydrography Dataset – High Resolution](#), (2) [Best Practices for the Revision of the National Hydrography Dataset](#), (3) [The National Hydrography Dataset Concepts and Contents](#), (4) [Introducing the NHDinGEO](#), and (5) [Stewardship of The National Hydrography Dataset](#) can be found at <ftp://nhdftp.usgs.gov/Docs>.

May Hydrography Quiz / New June Quiz

Ken Koch with the Washington State Department of Ecology was the first to correctly guess last month's hydrography quiz <ftp://nhdftp.usgs.gov/Quiz/Hydrography23.pdf> as Kauai, Hawaii, subbasin 20070000. Ken works on the State's Water Quality Assessment, or as EPA puts it, the Integrated Report - 303(d) and 305(b). Others with the correct answer were Steve Char, Barb Rosenbaum, Ken Skinner, Lee Galt, Al Rea, Mike Wiedmer, Bill Samuels, Sandy Schenck, Keith McFadden, James Sherwood, Joanna Wood, Paul Cunningham, Calvin Meyer, Gail Jackson, Jim McDonald, Linda Kelly, and Henry Wolter. Ken noted the radial drainage pattern as often found on volcanoes and the frontal drainage pattern characteristic of an ocean interface. That doesn't leave too many options.

“Blessed with spectacular natural panoramas and lush vegetation, some call Kauai Hawaii's most scenic island. Although it is the oldest among the Hawaiian Islands (scientists estimate it to be 5.1 million years old), Kaua'i has only become more beautiful with age. Anchoring the western part of the major Hawaiian islands, circular-shaped Kaua'i is the fourth largest in the state, with 552 square miles and 90 miles of coastline. Nearly 60,000 people call Kaua'i home. Kauai is home to two of the world's great natural wonders. Measuring 10 miles long, two miles wide and over 3,500 feet deep, Waimea Canyon is the largest canyon in the Pacific. Carved over thousands of years ago by rivers and floods flowing from the summit of 5,080-foot Mount Waialeale, this canyon is such a visual spectacle that Mark Twain dubbed it the "Grand Canyon of the Pacific." Hugging the northwest coastline of Kauai is the Napali Coast, one of the most awe-inspiring places on Earth with 2,000-foot sea cliffs, cascading waterfalls, playful dolphins and magnificent humpback whales”.

This month's hydrography quiz can be found at <ftp://nhdftp.usgs.gov/Quiz/Hydrography24.pdf>. This is one subbasin. Can you identify which subbasin it is? The main river that drains this subbasin played a large role in creating the environmental movement of the 1960's. The dark blue lines are perennial streams, the light blue lines are intermittent streams, and the maroon lines are the artificial paths in double-line streams. The main river we are looking for is a double-line stream that forms a giant “U” in this subbasin. The blue triangular shaped polygon is a sliver out of one of the Great Lakes.

Upcoming NHD Geo Edit Tool Training

July 17-19, 2007 San Diego, CA, Contact Steve Char sjchar@usgs.gov or Carol Ostergren at costergren@usgs.gov

August, 2007, Lansing, MI, Contact Hank Nelson hpnelson@usgs.gov or Steven Aichele at saichele@usgs.gov

September 18-20, 2007 San Diego, CA, Contact Steve Char sjchar@usgs.gov or Carol Ostergren at costergren@usgs.gov

September, 2007 Columbus, Ohio, Contact Hank Nelson hpnelson@usgs.gov or Charles Hickman at chickman@usgs.gov

October, 15-19 Tallahassee, Florida, Contact Carl Nelson cwnelson@usgs.gov or David Anderson at David.S.Anderson@dep.state.fl.us

Fall, 2007 (Possibility), Anchorage, AK, Contact Paul Kimsey or Carl Markon markon@usgs.gov

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

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The NHD Newsletter is published monthly. Get on the mailing list by contacting jdsimley@usgs.gov.

You can view past NHD Newsletters at http://nhd.usgs.gov/newsletter_list.html

Jeff Simley, USGS, assumes full responsibility for the content of this newsletter.