

USGS National Hydrography Dataset Newsletter
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Florida High Resolution NHD is Done!

The U.S. Geological Survey has now completed the high-resolution National Hydrography Dataset for the entire state of Florida. The statewide data set covering 55 subbasins was produced over a four year period with the involvement of five partners sharing the approximately \$1.5 million dollar cost. Participating in the Florida partnership were the Florida Bureau of Surveying and Mapping, the Florida Division of State Lands, and the Florida Department of Environmental Protection. Instrumental in this effort were Simm Smith and Alvin Gloer of Florida DEP who secured the majority of the partnership funds to develop both the medium and high-resolution NHD, as well as provide funding for two in-depth state-wide training sessions providing introductions to key state users on the geodatabase and its planned tools. Also participating in the partnership were the South West Florida Water Management District (SWFWMD), and the University of Georgia Information Technology Outreach Services program which developed information on the interstate subbasins. The USGS contributed work from its Reston, VA, Rolla, MO, and Denver, CO offices. The State's extensive coastline and nominal elevation contributed to make the integration process extremely labor intensive. Also, the massive Everglades subbasin, bisected by tens of thousands of canals flowing to both the Gulf of Mexico and the Atlantic Ocean, proved to be a significant challenge, but was subdivided into two subbasins to ease processing. The NHD in Florida will be used extensively for water quality analysis. This will involve the indexing of water quality sampling sites and water quality mapping assessments to the NHD network. It will also involve addressing Environmental Protection Agency (EPA) Total Maximum Daily Load categories (TMDL) such as sediment, pesticides and mercury to the NHD. Critical to this analysis is the ability to provide both upstream and downstream navigation on water related information. The Florida Water Management Districts are also interested in basin delineations and other infrastructure prediction uses.

Problems with NHD FTP

It appears that IT security has tightened the screws a little harder! Some of you have had problems connecting to the FTP site as the result of a passive FTP setting in Internet Explorer. If you click Tools -> Options -> Advanced and scroll down about half way, you will find a checkbox for "Use Passive FTP..." If you uncheck this box, you should be able to get to the FTP site.

Stewardship in Idaho

Members of Idaho's GIS community met on May 13 to discuss the stewardship of the National Hydrography Dataset produced for the State. The high resolution NHD is essentially done for Idaho, with only portions of two subbasins remaining. There has been a long-time interest in the State to make edits, particularly to stream and canal names, as well as flow on ditches and canals. Now, with statewide NHD nearly complete, and the NHD Geo Edit tool available soon, that State is ready to launch a stewardship process. Participants include the Idaho Department of Water Resources, Idaho Department of Lands, Idaho Fish and Game, the U.S. Bureau of Reclamation, and the U.S. Geological Survey. It has been decided that the Idaho Department of Water Resources will act as the principal steward for the State, which will then serve as a coordinator of stewardship activities in the State, as well as a focal point for edits made by a variety of expert organizations throughout the State, and then forward those edits to the USGS for normal distribution. The Idaho Department of Water Resources will have a web site available to provide status and post notices on NHD activity in the State. This will foster communication amongst agencies and allow for collaboration on editing activities. As a result, issues will tend to be resolved in the early stages of the process rather than come into conflict after-the-fact. Idaho is fortunate in having a

very active GIS in water resources community dedicated to building one highly accurate dataset for the State that all agencies can share. As in many states, names are an important issue. Although the NHD is required to use only names recognized by the Geographic Names Information System, the organizations within Idaho need many more names associated with the NHD. The Idaho Geographic Names Council provides a rigorous process for identifying many additional names. A process will be required to link these additional names with the NHD. At a minimum, this could be done by linking such a table of names to the Com_ID or reach codes used by the NHD using a simple table relationship. Many streams in Idaho receive their name from the named gulch through which the stream flows. Idaho also has a large number of canals essential to the surface water network. These too need to be named for proper identification. Additionally, most of these canals need to have flow added so that they become part of the integrated flow network. Idaho has received a \$60,000 FGDC CAP grant to update canals, add names and network flow. Idaho is also interested in perennial/intermittent stream classification, the use of local resolution data, the conversion of LLID stream routes to the NHD reach indexing system, and a variety of attributes that can be attached to the NHD, such as water temperature, a key factor is fish survival.

Stewardship in Montana

The Montana Fish Wildlife and Parks (MT FWP), in concert with the Montana Hydrography I-Team and the USGS, recently hosted a National Hydrography Dataset Stewardship meeting on May 19 in Helena, Montana. The topic of the meeting was how to better meet the needs of numerous NHD users in Montana including the U.S. Forest Service, the National Park Service, the MT FWP, the Montana Department of Environmental Quality, the Montana Department of Natural Resources and Conservation, and the Natural Resource Information System (NRIS) of the Montana State Library. One of the most important needs identified at the meeting was to finish the remaining 21 high-resolution subbasins. In order to coordinate NHD integration in Montana, the USGS recommended the establishment of a state NHD steward. Those present agreed that the Montana State Library's NRIS will take the lead as the acting NHD steward for Montana. Under the stewardship program NRIS will sign an agreement with USGS. NRIS will then work closely with the National Spatial Data Infrastructure Partnership Office in Montana to align state NHD production and maintenance requirements with the program capacity and goals of the USGS. NRIS will maintain a website to provide status and information on the NHD program. Future plans include training for NHD users and establishing a workflow process within the Montana NHD community for making changes to the NHD.

NHD Workshops

In the past three years the USGS has presented 55 workshops on how to use the NHD in GIS analysis. Over 1,000 scientists, technicians, and managers representing over 200 Federal, state, and local agencies and organizations have received this training. The workshops cover: (1) How the NHD is used by various users across the Country, (2) Characteristics of the NHD, (3) Mapping with the NHD, (4) Flow navigation, (5) Linear Referencing, and (6) Network analysis.

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.

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