

USGS National Hydrography Dataset Newsletter
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by Jeff Simley, USGS

Eighth Year of NHD Newsletter

This issue marks the beginning of the eighth year for the NHD Newsletter. Since November 2001, 85 newsletters totaling 243 pages of information have been sent out on a regular monthly schedule to a core group of about 300 professionals interested in the NHD. The newsletters are then often forwarded to others in state water agencies providing even wider distribution.

Exciting things are happening in Illinois – by Shelley Silch

The Illinois State Water Survey (ISWS) recently signed an agreement with the Illinois Primary NHD Steward (USGS Illinois Water Science Center (IL-WSC) to become the Illinois Secondary NHD Steward. The ISWS is a Division of the Institute for Natural Resource Sustainability at the University of Illinois. Representatives from the two organizations recently underwent NHD Stewardship Training conducted by staff from the National Geospatial Technical Operations Center. The Primary and Secondary Stewards are located in Urbana, Illinois and look forward to many years of NHD collaboration. For more information or questions about the NHD in Illinois, please send emails to: il.nhd@usgs.gov or call Jennifer Sharpe (IL-WSC) at 217-328-9731 or Philip Graff (ISWS) at 217-244-0904.

WBD Update – by Karen Hanson

Completion of the Watershed Boundary Dataset for the conterminous U.S. by January 16, 2009 is on schedule. Louisiana and Texas are making final edits after initial review for certification and are expected back by November 26th. Hawaii and North Dakota are making final edits after initial review for certification and are expected back by November 30th. New York plans their initial submittal before Thanksgiving. New Jersey is completed and plans to submit their dataset by December 5th. Delaware is planned for submittal by December 12th. Statewide maintenance has now been completed on Maryland and planned to be available to the public in January. The official site for retrieval of WBD data is currently with the Natural Resources Conservation Service at <http://datagateway.nrcs.usda.gov/>.

A WBD/NHD/NOAA Coastal Coordination meeting took place in Charleston, South Carolina on October 28-29, 2008. There were about sixty in attendance. Presentations from that meeting are available at ftp://ftpext.usgs.gov/pub/wr/ut/salt.lake.city/WBD/Coastal_Notes/. Results to move the WBD limit to a 3-nautical mile offshore are being included into the 2008 version of the WBD guidance document, soon to be available to the public. Specific instructions for bays, sounds, estuaries, off shore attribution will be further refined and an addendum posted for review over the next few months.

U.S. – Mexico Hydrography Cooperation – by Jean Parcher

The USGS representing the United States and the Instituto Nacional de Estadística y Geografía (INEGI) representing Mexico recently held a working meeting at INEGI's Headquarters in Aguascalientes, Mexico to integrate hydrography data between the two nations. The first priority is to complete the integration of watersheds between the U.S. and Mexico at the Subbasin level (US) and Basin level (Mexico) to obtain the bi-national framework for the hydrographic network. At the second level of priority is the completion of the integration of the watersheds at the Subwatershed level or micro-cuencas. For the hydrography network, the INEGI team has prioritized the border region for completion of their

phase II of the hydrography network, beginning in the west (Tijuana-San Diego) working towards the east (Matamoros-Brownsville). Each country will take the responsibility to adjust their water flow lines to the international border. In the case where a hydrological feature exists on one side of the border, but does not exist on the other side of the border, it will be taken into consideration that INEGI's information is more current than the USGS information. Therefore, the USGS will take the responsibility to adjust their features to harmonize them with those of INEGI. The National Hydrography Dataset (NHD) will develop a crosswalk table to link permanent ID's in each respective national dataset and will act as the record of change to the hydrography network during any update activities. The complete project to harmonize the watersheds at the sub watershed level and build the hydrography network will be completed by September 2009. Each country will archive their hydrography network for the entire Subbasin level and archive their watersheds at the Subwatershed level in their appropriate databases. The names of the bi-national watersheds will include the official names of each country. The INEGI authorities appreciated the USGS visit, especially the emphasis towards exchanging opinions and experiences with these bi-national projects.

U.S. - Canada International Watersheds Initiative - by Pete Steeves

Representatives of the USA/Canada Transboundary Hydrographic Data Harmonization Task Force met in Ottawa, Canada (11/19 - 11/20) to discuss progress to date with a proof-of-concept pilot basin (the Pembina Basin, in North Dakota and Manitoba) to crosswalk GIS vector hydrography data along the common border. The national datasets include the NHD on the US side and the National Hydrography Network (NHN) on the Canadian side. Invitees from the US included representatives from USGS, EPA, and the International Joint Commission (IJC). Canadian invitees included representatives from the IJC, Natural Resources Canada (NRCan), Agriculture & Agri-Foods Canada, Environment Canada, and ESRI. The USGS and NRCan, which are the 2 agencies charged to develop a crosswalk, presented a progress on the first day of the meeting. The two agencies had worked together in Sherbrooke, Quebec a month earlier and developed a comprehensive correlation table to convert NHD features into NHN. The crosswalk process includes an intermediate hybrid model that is being used by NRCan to convert provincial data to NHN. NHD for the Pembina was subsequently presented to NRCan, which crosswalked both the NHD and NHN into the hybrid model. With the hybrid model now containing both NHD and NHN it is the likely source for both final products. Other details worked out before the meeting were issues related to coordinate systems, limits, and use of a common international boundary for edgematching. The next step includes development of a correlation table from NHN to NHD and crosswalk from the hybrid model to both NHD and NHN. Day 2 of the meeting included discussions regarding standardization of basin boundaries in Canada to match WBD, prioritizing basins beyond the Pembina, and plans to apply the final crosswalked data.

Hydrography Stewardship Conference

A national conference will be held April 15-17, 2009 in Denver, Colorado to discuss hydrography data stewardship composed of the NHD and WBD. The goal of the conference is to better develop data stewardship by exchanging ideas amongst a broad group of participants to find out what works, what doesn't work, and how to make improvements.

October Hydrography Quiz / New November Quiz

Jennifer Runyon, Senior Researcher for the Board of Geographic Names at the USGS, was the first to correctly guess last month's hydrography quiz <ftp://nhdftp.usgs.gov/Quiz/Hydrography40.pdf> as Isa Lake in Wyoming. The small lake sits directly on top of the Continental Divide at Craig Pass in Yellowstone National Park and drains out of each end, flowing to the Pacific and Atlantic oceans. Interestingly, due to

the surrounding landscape, the lake flows to the east to reach the Pacific and to the west to reach the Atlantic.

Jenny has been a member of the research staff for the U.S. Board on Geographic Names (BGN) in the USGS Geographic Names Office since 1994. The Names Office is part of the National Geospatial Programs Office in Reston. The BGN has been responsible for standardizing geographic names for use by the agencies and departments of the Federal government. This includes all geographic names, except roads and highways, including both physical features and cultural and man-made features. The BGN is comprised of two standing committees, for Domestic Names and Foreign Names. All domestic geographic names are stored in the Geographic Names Information System <http://geonames.usgs.gov>, the only official repository for geographic names for the Nation. Names and related data are collected for the GNIS from all available sources, ranging from USGS topographic maps, Forest Service maps, and NOAA charts, to state, county, and local maps, published histories, GIS datasets, and through contracts and stewardship agreements. To date, GNIS contains well over two million entries, each of which provides the official name of a geographic feature. If known, the history of the name may also be provided, and GNIS contains one of the most comprehensive inventories of historical places, whether the feature itself no longer exists or it no longer serves the function for which it was named.

Others with the correct answer were (in order received): Steve Shivers, Richard Patton, Grant Wilcox, Janel Day, David Asbury, and Elaine Blok.

This month's hydrography quiz can be found at <ftp://nhdftp.usgs.gov/Quiz/Hydrography41.pdf>. This is one of the most famous lakes in the U.S., but you will not find it on any 1950's era maps. Note the characteristic "reservoir shoreline" that is quite distinct from the shoreline of natural lakes. The red feature in the image is a dam containing five million cubic yards of concrete. Send your guess to jdsimley@usgs.gov.

Upcoming NHD Geo Edit Tool Training

January 26-28, 2009, Tallahassee, FL, Contact George Heleine at gheleine@usgs.gov, David Anderson at danderson@usgs.gov or Joe North at joe.north@dep.state.fl.us

Upcoming NHD Applications Training

Jan. 20, 2009, Hawaii, contact Henry Wolter at hwolter@usgs.gov.
Feb. 4-6, 2009, Michigan, contact Steve Aichele at saichele@usgs.gov.
Feb. 18-20, 2009, Wisconsin, contact Dick Vraga at rsvraga@usgs.gov.

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Thanks to Shelley Silch, Karen Hanson, Jean Parcher, Pete Steeves, Ariel Bates, and Terry Higgins. 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.