

A Profile of NHD Users by Janel Day

Since 2004, there have been over 85,000 data downloads from the NHD Viewer. The dot-com commercial sector represents a quarter of the total. Downloads to this sector have doubled in the past year and quadrupled since 2004. These mainly include environmental engineering and consulting firms. The dot-gov and dot-us government sector represents about half the total downloads. It is difficult to distinguish between Federal and State agencies, but it appears the Federal sector accounts for about two-thirds of this. Educational institutions represent about one-fifth of the download population. The majority of the remaining NHD downloads can be attributed to the educational, private, and non-profit sectors. The most significant change in the NHD data download profile can be seen in the increase in the private sector. The volume of downloads among government entities, educational institutions, and non-profit sector have remained about the same over the past few years.

The NHD viewer offers a variety of formats available for download in both the 1:24,000 and 1:100,000-scale resolutions. The overwhelming majority of downloads from the viewer are by subbasin leaving about eight percent by county. Other delineations are not significant. High resolution downloads outnumber medium resolution by about two to one. The number of medium resolution downloads have remained unchanged while there is definite growth in high resolution downloads. High resolution downloads were about one-third greater in 2007 than 2006. Shapefile downloads were double that of geodatabase downloads in 2007, while in 2006 and 2005 they were about equal. Interestingly, there is a growing trend in the popularity of shapefile format. Next month, look for a review of subregion downloads from the ftp site.

National Hydro Network Update by Bruno Simoneau

2008 promises to be a dynamic year for GeoBase and its development of Canadian watershed data in the National Hydro Network (NHN). By December 2008, national coverage of nearly 1,100 NHN watersheds will be available on the GeoBase Web site. 800 watersheds, up from the current 287 watersheds, to be released on March 20 in celebration of World Water Day on March 22. This year look for: a new NHN data web viewer service; a new national index of NHN watershed limits; and three additional data releases of about 100 watersheds each in June, October and December to complete the NHN national coverage. More details on the NHN, along with current NHN data available without cost or restrictions, and under common licensing terms, can be accessed at the Web site <http://www.geobase.ca/geobase/en/data/nhn/index.html>.

The RivEx River Analysis Tool

An interesting river analysis tool has been developed in England <http://www.rivex.co.uk/>. Here are some of the functions: "Process connected river centre lines, check network for specific errors, generate new node layers for the nodes of the network, attribute network including stream order, convert network to a measured network, analyze network and store the results, generalize the network, quality controlled snapping of sites to the river network, and export river network data to KML (Google Earth) format. The developer is currently working on developing a new component for random and stratified point sampling

of river networks. RivEX was designed to run in ESRI ArcGIS 9.0/9.1 on a Windows Microsoft Operating System (Windows 2000 or XP). RivEX does not require the network extension to run. It will run under the standard ArcView license of ArcGIS 9. Users who have upgraded to version ArcGIS 9.2 have reported that RivEX runs. RivEX has been developed in VBA and sits within an ArcMap document file. RivEX will process data which is in the format of Shapefile or a Geodatabase FeatureClass. Polyline, PolylineM and PolylineZ data are all supported.” Remember that: “Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.”

January Hydrography Quiz / New February Quiz

Mike Wiedmer, was again the first to correctly guess last month’s hydrography quiz. The quiz <ftp://nhdftp.usgs.gov/Quiz/Hydrography31.pdf> was Grays Harbor, Washington. This is where the Chehalis River empties into the Pacific Ocean. You can find out more about Mike in last month’s newsletter. Others with the correct answer were (in order received) Jim Sherwood, Joanna Wood, Dave Straub, Mac McKay, Ken Koch, James Seay, Richard Patton, Anne Johnson, Al Rea, Tom Christy, Ed Carter, and David Heber.

Grays Harbor is an estuarine bay with a pair of low peninsulas separating it from the Pacific Ocean, except for an opening about two miles in width. An estuary is typically the tidal mouth of a river, and estuaries are often characterized by sedimentation or silt carried in from terrestrial runoff and, frequently, from offshore. They are made up of brackish water. Estuaries are more likely to occur on submerged coasts, where the sea level has risen in relation to the land; this process floods valleys to form rias and fjords. These can become estuaries if there is a stream or river flowing into them.

Ed Carter provides some background on the name: “Grays Harbor is named after Captain Robert Gray who discovered and entered it on May 7, 1792 in the course of his fur-trading voyages along the north Pacific coast of North America. Gray named the bay Bullfinch Harbor, but it was afterward named Grays Harbor by Captain George Vancouver, whose contemporaneous explorations of the region -- the ships of the two captains had met at sea, only days earlier -- were well publicized at the time, while Gray’s voyages were not. Grays Harbor was the name that stuck. (A few days later, on May 11 Gray found a navigable channel into the estuary of the Columbia River, and sailed into it, the first white man to do so.)”

This month’s hydrography quiz can be found at <ftp://nhdftp.usgs.gov/Quiz/Hydrography32.pdf>. This is the confluence of two “Level 2” rivers with a “Level 1” river. What are the three rivers? Why is there a big “hole” in the NHD in the southeastern area of the image?

American Water Resources Association

Be sure to mark your calendar for the 2008 AWRA Spring Specialty Conference – GIS and Water Resources V in San Mateo, California on March 17-19, 2008. See http://www.awra.org/meetings/San_Mateo2008/index.html

Upcoming NHD Geo Edit Tool Training

February, 2008, Anchorage, Alaska (tentative), Contact Paul Kimsey pjkimsey@usgs.gov or A.C. Brown at acbrown2@usgs.gov.

Upcoming NHD Applications Training

March 5, Richmond, Virginia, contact Diane Eldridge at deldridge@usgs.gov

March 6, Reston, Virginia, contact Diane Eldridge

March 13 and 14, Reno, Nevada, contact Tom Sturm at tsturm@usgs.gov

March 20, Menlo Park, California, contact Carol Ostergren at costergren@usgs.gov

April 24, 2008, Kansas City, Missouri, see <http://www.magicgis.org/magic/symposiums/2008/index.cfm>

May 7, Dearborn, Michigan, contact Steve Aichele at saichele@usgs.gov

May 8, Lansing, Michigan, contact Steve Aichele

May 19-23, Oregon and Washington, contact Sheri Schneider at sschneid@usgs.gov or Allyson Jason at ajason@usgs.gov

June 3-5, Ottawa, Ontario, GeoTech Event 2008, see <http://www.geoplance.com/ME2/Default.asp>

Hawaii in planning stages, contact Henry Wolter at hwolter@usgs.gov

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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.