

USGS National Hydrography Dataset Newsletter  
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High Resolution NHD in Georgia

Georgia was one of the first states to express an interest in developing the high-resolution NHD for an entire state. The partnership between USGS and Georgia began with Georgia's revision of all the transportation and hydrography data for the state as feature-based DLG data (DLG-F). The University of Georgia Office of Information Technology and Outreach Services (ITOS) developed tools and a process to convert the DLG-F data to the NHD data model. Like other high-resolution processes, the medium-resolution NHD network as the basis for the more detailed high-resolution network. Initially, Georgia has been concentrating on the sub-basins that are completely internal to Georgia. Twenty-two of the 30 internal sub-basins have been completed and delivered to USGS for quality assurance. The remaining 8 sub-basins will be complete by the end of June. Georgia has held off on the sub-basins that cross other states while arrangements are made with the surrounding states to do full sub-basins wherever possible. The USGS, USDA Forest Service, North Carolina, and Georgia have recently developed a plan to share the work along the North Carolina border, taking advantage of the statewide NHD effort in North Carolina. Likewise, Florida is developing statewide NHD and this NHD creation will be coordinated with Georgia for cross-border sub-basins. South Carolina wants to develop NHD data, but currently funds are not available. Alabama has some Forest Service lands that will receive high-resolution NHD coverage and this will contribute to the Georgia program, but no Alabama state funding is currently available. The ITOS team has been an innovative and eager partner, able to develop the NHD with a minimum of support from the USGS. They will also support the maintenance of NHD for Georgia and this continuing relationship with the USGS will be a valuable asset to the national program.

Alaska Update

The strategy for producing the NHD in Alaska was summarized in the February, 2002 NHD Newsletter. At this time, work is progressing close to schedule. Of the 133 sub-basins to be produced, 122 sub-basins are in-work, 9 are waiting for source data from the Tongass National Forest, and 2 are complete. The Alaska Geographic Data Committee has provided direction on production priorities. A critical milestone in the program is the need to complete the RF3 reach network data by the end of August when the RF3 contract expires. This should be achievable, in which case the bulk of Alaska will be complete in October, 2002, and the final data should be complete in the December-January time-frame. A number of sub-basins were initially completed and sent to the AGDC for evaluation. The USGS is using this customer feedback to enhance the production process to better meet customer requirements. Most of the funding for the Alaska NHD is being provided by the Department of Interior High Priority Lands program. Much of the work is being contracted to Horizon Systems Corporation of Herndon, Virginia, and Titan Systems Corporation of Portland, Oregon, while the USGS work is being done by the Rocky Mountain Mapping Center. The Alaska NHD represents data at the 1:63,360-scale and will be stored in the high resolution FOD.

Geodatabase Migration Update

Upcoming developments call for the NHD to be stored in the Geodatabase structure, and for this to work, the existing FOD must be converted to the Geodatabase. In preparation for this, tests are being conducted by using a test copy of the FOD for loading it into the ArcSDE Geodatabase to determine if there are any problems. Several test passes are being run on the conversion, with each pass run with additional functionality. The first pass involved converting the spatial data and in this test the feature level

classification proceeded successfully. Current tests call for applying full attribute and value classifications to the conversion. Then, the next pass will address carrying forward the NHD metadata lineage. Other tasks on the migration development involve; the conversion of branched reaches into linear reaches, the application of M values to linear reach extents in the Geodatabase, the integration of high resolution and medium resolution data into a single data layer, and the migration of reach cross reference and vertical relationship data. Although most of this work will be completed by mid-summer, the tests will continue to refine and test the process until final conversion of the production data in the FOD. Other major development tasks following this conversion are; completing the data access and delivery mechanisms in ArcIMS, building the data interfaces to support disconnected geodatabase edits and also backward compatibility with FCP/NHDinARC, developing data integrity checks for data uploads, and completing user documentation and training materials in support of the conversion.

#### U.S. Forest Service Progress

The joint effort between the USGS and the USFS to produce the high resolution NHD for about one third of the Nation is moving along well. The USFS has 83 sub-basins in production or complete, while the USGS has 230 sub-basins in production or complete, with many of the later being produced as a result of agreements with states. In addition, many more sub-basins are being prepared for production as source data is gathered or produced.

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