

USGS National Hydrography Dataset Newsletter
Vol. 1, No. 6, April, 2002
By Jeff Simley, USGS

The High Resolution NHD in California:

Tangible interest in NHD in California began in 1999 with the production of one "pilot" 1:24,000-scale sub-basin for the San Francisco Estuary Institute (SFEI). To highlight this and other developments, the USGS then held meetings that served as the catalyst for developing widespread interest in the state. Participation included a good cross-section of representatives from federal, state, regional, academic and private sectors. A presentation by Brian Sanborn of the U.S. Forest Service on plans to use NHD as the base layer for the USFS National Resource Information System (NRIS) water module helped to widen interest in NHD. This included the highly significant support of the USFS Region 5, which covers a large expanse of the State. The early meetings established the groundwork for an Innovative Partnership with the University of California-Davis for their production of NHD. A commitment was obtained among key State staff for developing NHD as the State's hydrography layer, and a better understanding was gained among all meeting participants of the long-term goals and objectives of the program. Following these initial efforts to obtain widespread support for high resolution NHD, the USGS worked closely with the Gabe Garcia, NRIS Coordinator for the USFS Region 5. This resulted in an agreement to produce 33 sub-basins in southern California, which included support from Santa Barbara County and the San Diego Association of Governments. The production of the NHD is being accomplished at the Rocky Mountain Mapping Center. The agreement called for completion by September 2001, however, portions of the project remain in-work as of this date due to production implementation delays early in the project. The USFS Region 5 has targeted 13 sub-basins in support of the Lake Tahoe Area National Map Pilot as its next priority. Completion is expected by September 2002 so that the NHD can be included in the public opening of the National Map Internet Map Server.

Additional California projects include: 1) UC Davis IP – UC Davis is testing use of input data identified at the early NHD meetings. It is also exploring enhancements that can be made to NHD routines for utilizing LLID data, using the California Dept. of Forestry north coast data as a test. It is hoped that the result will be useful to the LLID program in the Pacific Northwest. The effort will result in two completed 1:24,000-scale NHD sub-basins from UC Davis. 2) San Francisco Estuary Institute - Two additional Bay Area sub-basins are currently in work. SFEI has a strong interest in building storm drains with a modified (underground) flow in the model. This should advance the understanding of the data model and increase its usefulness to a broader set of users. 3) Department of Interior High Priority Lands Program – As a result of the Fiscal Year 2000 program, a project is underway to revise hydrography and produce 1:24,000-scale NHD for five sub-basins in the Central Valley. The State of California has twice tried without success to obtain funding to complete high resolution NHD coverage in California. Hopes of gaining this support appear dim since the State is currently operating as a severe deficit. However, interests should grow as the California GIS Council takes root (it was established in August of 2001). Efforts will continue to seek and find small projects that will advance the cause of completing statewide coverage. See index map on page 3.

High Resolution NHD in Missouri

The State of Missouri's Missouri Resource Assessment Partnership (MORAP) demonstrated its support for NHD by entering into an agreement with the USGS to cooperate in the production of high resolution NHD for the entire state of Missouri. This agreement, signed in 1999, calls for the involvement of the Mid-Continent Mapping Center (MCMC) in several capacities. The mapping center will provide all 1:24,000-scale source data. This will include USGS Digital Line Graphs, Cartographic Feature Files obtained through the U.S. Forest Service, and where source data does not exist, the mapping center will

produce Tagged Vector-Hydrography files, a simpler version of the DLG, along with some new DLG's. The mapping center will also provide NHD training to MORAP to allow them to proceed with NHD production using the NHD Create software system. The State will then produce the NHD using its own team of specialists, with MCMC helping them get started on the first few sub-basins. The initial agreement divided the State into first and second priority regions. A third party, the Mark Twain National Forest, joined the project by providing funding directly to MORAP so that 18 sub-basins with USFS land could be included in the first priority group. The agreement with USGS was then amended to accommodate this. MORAP is now close to completing these 18 sub-basins. Phase one of the Missouri project should be completed by September 2002. Meanwhile, MCMC is now completing the final Tagged Vector-Hydrography files for Missouri. Phase two of the project will see MORAP complete statewide coverage, and MCMC performing final quality assurance and loading of the data into the Feature Operational Database. Phase two should be completed by March 2003. One dilemma that faces State-sponsored NHD programs is how to treat sub-basins that cross into an adjacent state. In the case of Missouri, MORAP will produce full sub-basins for most of the cross-border work. Additional agreements have been made to allow for full sub-basin coverage in a number of remaining cases, including a sharing arrangement with the State of Kansas to alternately trade cross-border sub-basins. See page 4 for a phase-1 index map.

High Resolution NHD in Michigan

The need for statewide NHD in Michigan was reinforced at an April 15 gathering in Lansing of some 60 hydrography stakeholders from throughout the State. This included representatives of State agencies and county governments, as well as the U.S. Forest Service, the Environmental Protection Agency, and the U.S. Geological Survey. It was generally agreed that the development of Michigan's NHD is needed soon. The meeting covered a wide range of subjects, from an introduction to NHD and available NHD ArcView tools, to several detailed subjects including discussions on high resolution requirements related to feature content, accuracy, currency, and specific use of artificial paths and connectors. A second day of the meeting was spent with the NHD production staff from the Institute for Fisheries Research, which is producing NHD using Michigan Framework data and U.S. Forest Service data. The Michigan Information Center is increasing its involvement in a statewide NHD effort that will include the repositioning hydrography data.

High Resolution NHD in Ohio

The implementation of NHD in Ohio is gaining support as evidenced by an April 17 meeting in which over 25 participants, including the USGS, gathered in Columbus to discuss the NHD. A State group called the Framework Taskforce for Hydrography has been formed to consolidate requirements and support for a statewide NHD. A high resolution NHD pilot project is currently underway at the Center For Mapping (CFM) at the Ohio State University. The CFM has solved initial problems with specific source data and is now in NHD production using revised data. An improved version of the 1:24,000-scale Digital Line Graph hydrography data, the Ohio DRN source hydro data, is being promoted in the State as the recommended source for NHD. It is hoped that overlapping sub-basins from Indiana, and upcoming U.S. Forest Service activity will use this data.

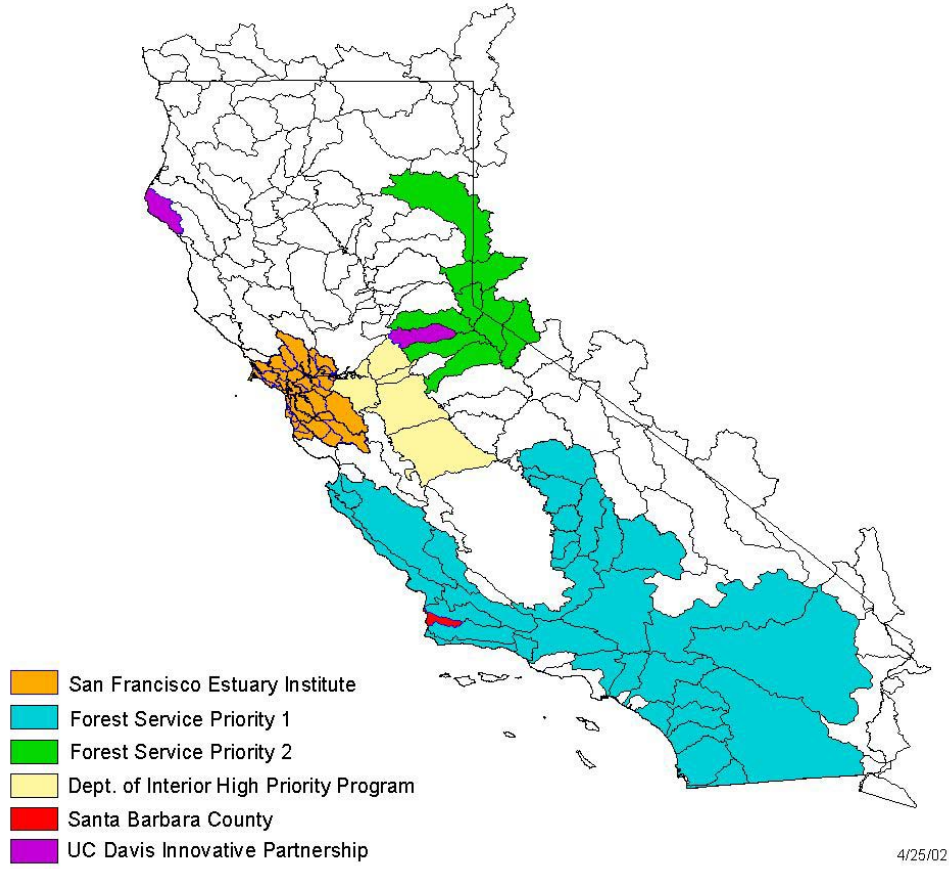
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Thanks to Vicki Lukas, Mark Gewinner, and Charley Hickman.

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



1:24,000-Scale National Hydrography Dataset (NHD)
Projects in California



**MoRAP/MCMC
Workshare for
High-Res NHD
PHASE ONE
Revised 6-11-01**

