

DNR MEMO

TO: Ray Fox – USGS

DATE: 11/9/2005

FROM: Rex Gittins

SUBJECT: NSDI Cooperative Agreement No. 04HQAG0196 - Final Technical Report

This is our final technical report for NSDI Cooperative Agreement No. 04HQAG0196. The following narrative briefly describes accomplishments compared to plan on our grant-related activities. The status of each task is also highlighted on the attached Summary Status Chart.

Summary

The work envisioned in our grant request progressed essentially as planned with the exception of the “best available” street centerline/address dataset. As described in more detail below, the Nebraska Department of Roads (NDOR) found that the integration of multiple data sources to create the street centerline/address dataset was more difficult than expected. However, this effort has resulted in structure and direction for continued development, and a completed county segment has served to confirm dataset transferability, web access, and linkage to The National Map.

The Nebraska Department of Natural Resources (NDNR) completed planned database development and related task commitments. Although several obstacles and delays were encountered, all planned data layers have been linked to The National Map.

Total project costs incurred have also been approximately as planned. A request for reimbursement for the full amount of the federal share (\$53,900) will be submitted in the next few days.

Planned Work and Accomplishments

A number of differences were encountered by NDOR staff in working with the various datasets being used as sources for the “best available” street centerline/address database. While these differences have complicated work processes and required much more effort than originally anticipated, the agency remains committed to completing the development. Further, NDOR is in the process of formally accepting the ongoing data stewardship role. Accomplishments to date have included:

- Project plans, approaches and techniques for dataset development were defined with the aid of contractor services funded through the grant. This contract was completed in August.
- Efforts to integrate best available data from several sources has involved several major activities including: cleaning and edge-matching data from other sources with NDOR’s local network files; integrating enhanced local centerline/address data;

conflating TIGER attributes; building intersection ID files; and completing Integrated Highway Inventory files for the local network.

- The initial pass was completed for the Cass County segment of the new database in September. Work on sixteen other Nebraska county segments is currently in progress.
- NDOR and NDNR worked together to define the file transfer approach using the Cass County segment. NDNR subsequently published this segment on its website and provided linkage information to The National Map.
- Opportunities to obtain and incorporate additional datasets are still being pursued, and several desirable refinements/ enhancements have been documented for future consideration.

Work at NDNR also progressed somewhat slower than plan due to a higher than expected learning curve for embracing geodatabase architecture and new versions of ESRI software, and the need for increased coordination and assistance from the U.S. Fish and Wildlife Service to resolve inconsistencies in Platte River infrared image files. All planned work has been accomplished, including:

- Cross-agency coordination has continued throughout the grant period.
- Technical GIS software training was completed.
- All planned datasets were obtained and/or processed and submitted for linkage to The National Map – three in August and the last one in September.
- The Cass county segment of the “best available” street centerline/address database was submitted for linkage to The National Map in September.
- Metadata has been published in the Nebraska Geospatial Data Center metadata clearinghouse for all datasets except the Street Centerline/Address database.
- Development efforts being underwritten by the NSDI Cooperative Agreement Grant and results to date were presented at the Nebraska GIS Symposium held in Lincoln, Nebraska on May 24-26, 2005.

Accomplishments by Work Task

Accomplishments by work task are listed below. Task numbers cross-reference to those on the attached Summary Status Chart.

Task #	Activity
1	The NDNR project manager attended the FGDC CAP Kickoff meeting in September 2004.
2	Project management oversight by NDNR staff has progressed as planned.
3	Cross-agency coordination continued throughout the grant period. Regular updates were provided to the Nebraska GIS Steering Committee by both NDNR and NDOR, and all work was performed in cooperation of the Steering Committee Coordinator. MOUs between NDOR and the Nebraska GIS Steering Committee regarding data stewardship for the street centerline/address dataset, and between NDOR and NDNR regarding web publication and linkage to The National Map are in the final stages of legal review. No major obstacles have been identified.
4	The new NDNR web server was placed in production in January, and datasets were loaded in accordance with the data and website plans.

Task #	Activity
5	NDNR's final GIS software configuration was implemented, and existing databases were converted to geodatabase format and transitioned to the new database (SQL/SDE) server and storage hardware.
6	All new image files were obtained and processed, and the resulting geodatabases are linked to the National Map.
7	Geodatabase level I and II training was completed by two developers - new skills were employed and honed during the course of the grant effort. One developer also attended the USGS TNM workshop in Rolla. A minor deviation from plan was that the ArcSDE for SQL class was attended instead of the planned Concepts & Designs class based on recommendations from ESRI trainers.
8	The Farm Service Administration (FSA) 2003 1 meter color aerials (leaf on) were purchased through a collaborative effort by State agencies and other public entities. The imagery was processed, and JPEGs are available on DNR's website. The SDE file was created and linked with the National Map.
9	SDE files for 1999 DOQQs were created and are linked with the National Map.
10	The Platte River corridor infrared aerial imagery dataset was obtained through cooperative efforts with the U.S. Fish and Wildlife Service. Imagery files were processed, JPEGs made available on NDNR's website, and an SDE file was created and linked with the National Map in September.
11	Topology, subtype and related rules were defined for the 10' tagged vector contours (TVC) layer which was subsequently imported to SDE and linked to the National Map in August.
12	Metadata for datasets has been published on the Nebraska Geospatial Data Center metadata clearinghouse for all datasets linked to The National Map, except for the "best available" street centerline/address database (see Task 14 below).
13	NDOR's contract for services to help plan work and to define approaches and techniques for developing the "best available" street centerline/address database was completed. Work to obtain and integrate data from several sources is in progress for 17 counties. The initial integration effort for the Cass County segment was completed and successfully transferred to NDNR where it was published on the web and linkage to The National Map.
14	NDOR and NDNR are working together to complete and publish appropriate metadata for the "best available" street centerline/address database.

If you would like further information or want to discuss our efforts in more detail, please contact me at (402) 471-1767 or via email at rgittins@dnr.state.ne.us.

Attachment: Final Technical Report Summary Status Chart