

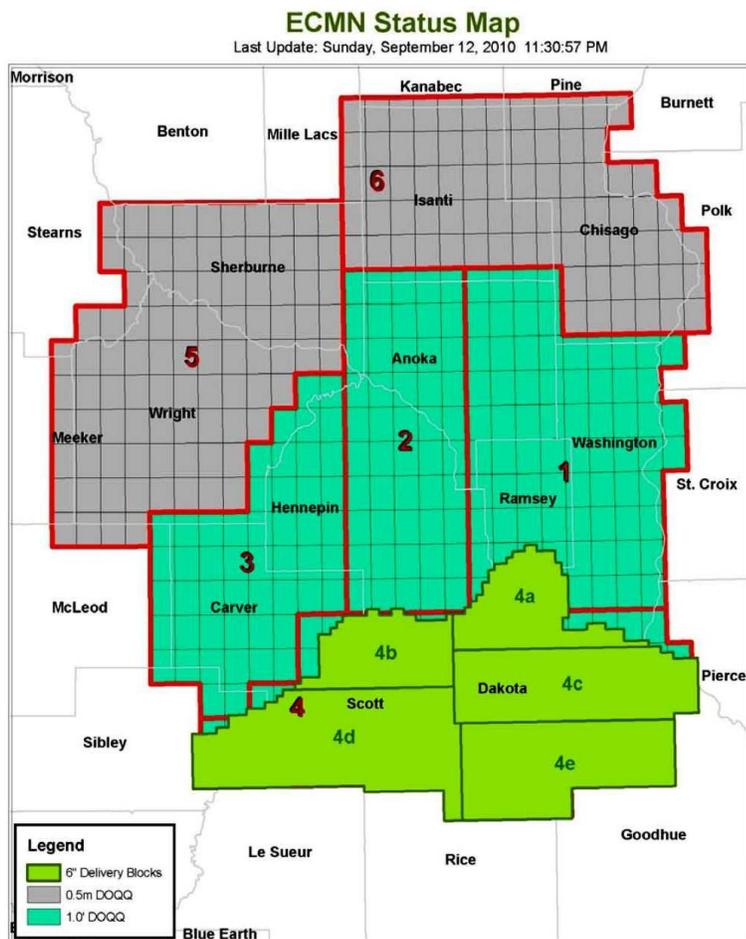
MnGeo Statewide Geospatial Advisory Council PROJECT UPDATES

September 29, 2010

2010 Metro Orthoimagery

Eleven of thirteen East-Central MN counties have been flown this spring for high-resolution 4-band digital imagery from which stereo and ortho-rectified data products will be produced. The project is being funded by the DNR, Metropolitan Council, NGA (through the USGS) and Metropolitan Mosquito Control District. MnGeo is managing federal and vendor contracts and interagency agreements. Surdex Corporation collected imagery in April, with the following results:

- Wright, Sherburne, Isanti and Chisago Counties collected at 20-inch resolution
- Five Metro counties collected at 1-foot resolution
- Dakota and Scott counties collected at 6-inch resolution
- Rice and Goodhue counties not collected due to early leaf-out; rescheduled Spring 2011

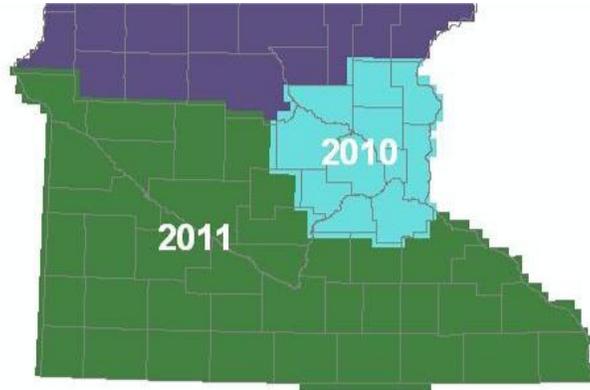


The project area has been divided up into six Quality Control regions, which are being reviewed by Met Council and DNR staff through a web image service. Errors are being identified and reported back to Surdex. To date, Blocks 1-3, 5 and 6 have been returned for corrections. Block 4 is being reviewed by Dakota and Scott Counties. After repairs have been made, each block will be returned to the project manager on portable drive for MnDOT's accuracy testing and the project team's final review.

The project is about 90% complete for this year's portion. A contract amendment has been executed that will extend the project through calendar year 2011 so that Rice and Goodhue Counties can be collected and processed during the Spring 2011 season.

For more information on these projects, see the [spring air photo project website](#) or contact Chris Cialek, MnGeo, at chris.cialek@state.mn.us or 651-201-2481.

2011 Orthoimagery Planning



Thirty-six southern Minnesota counties will be flown next spring as the next phase of a statewide, leaf-off project (see map). Three informational meetings were conducted this summer to explain the project and gauge interest in county partnerships. Those events took place in Marshall (June 22; 10 attendees), Rochester (July 1; 6 attendees) and Mankato (July 1; 5 attendees). Nine other organizations that could not send a representative to one of these meetings contacted the project team to request details. To date, two counties have formally expressed their intent to partner: Murray and McLeod.

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State LiDAR Project Update

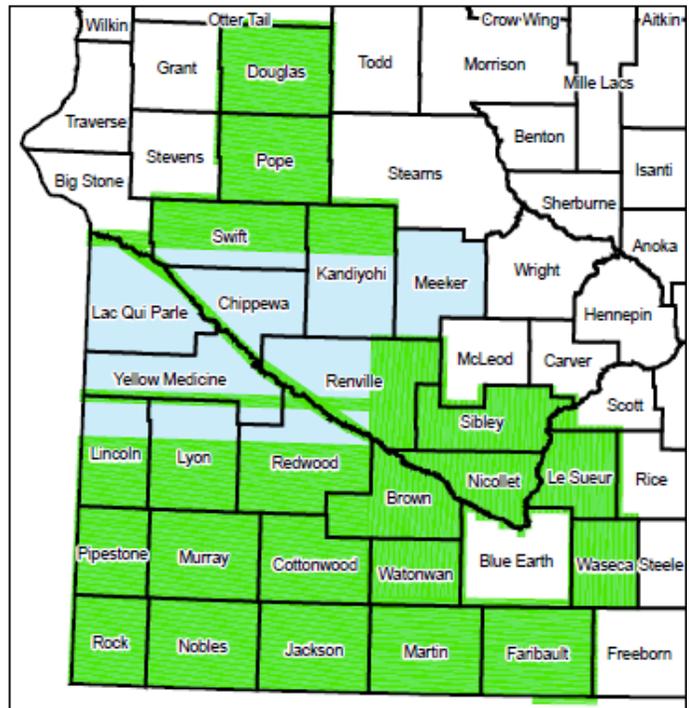
This project is proceeding on schedule with roughly 80% of the Minnesota River Basin project area acquired in the spring of 2010 (see map). The remainder of the project area will be acquired this fall. Conditions are favorable for good collection conditions with the projected early harvest of the corn and soybean crops.

The first deliveries are expected in mid October and will consist of Martin and Faribault County.

The State Digital Elevation Committee met on August 31st and approved a modified collection schedule (see map). This schedule accommodates requests from the NRCS to accelerate the acquisition in the Arrowhead region to facilitate soil surveys in Lake and Cook County as well as Voyageurs' National Park.

The State received a grant from the USGS to facilitate the collection of data over the South Dakota portion of the Minnesota River Basin. This area will be acquired in the fall of 2010 and the work is fully funded by the USGS. The State has contracted with a private Surveyor to collect validation points in South Dakota.

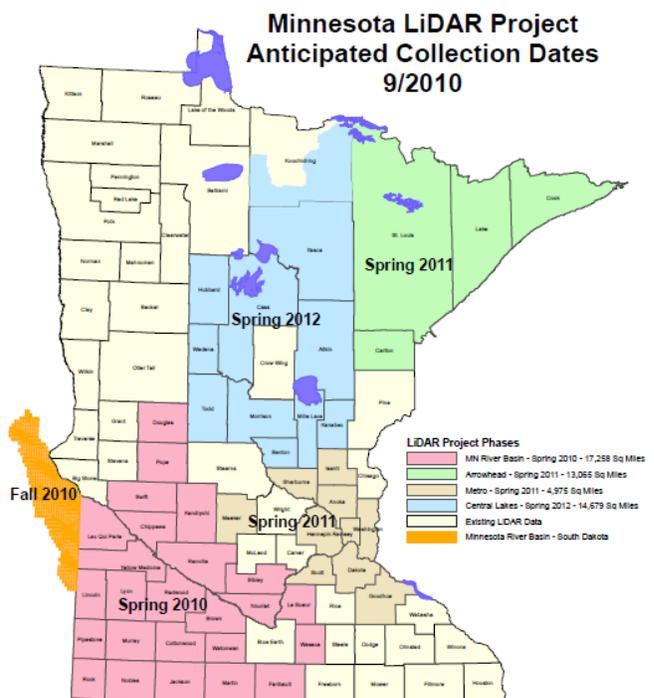
For more information, including larger versions of the maps, see: http://www.mngeo.state.mn.us/committee/elevation/mn_elev_mapping.html



LiDAR Project Phase 1 Collection Status

Legend Spring Collect - 2010

- Completed in Spring 2010
- To be Completed in Fall 2010



GLO Field Notes

The Minnesota Historical Society awarded a Minnesota Historical and Cultural Heritage Grant to MnGeo to scan, index and make more accessible Minnesota's General Land Office (GLO) Field Notes. The field notes were created for the federal government between 1847 and 1911, prior to opening Minnesota to land sale and to European settlement. Contained in 1,410 volumes totaling nearly 250,000 pages, the notes serve as the legal foundation for all land ownership in the state. They are also uniquely valuable for historical, environmental, genealogical and legal purposes and are the only comprehensive representation of Minnesota's landscape prior to development.

Project Activities since June 2010 Report

- Negotiated mobility assignments to MnGeo of two Mn/DOT Survey Technicians to assist with the field notes indexing. Mn/DOT will be compensated for their time from the grant.
- Hired on a part-time basis a Principal Land Surveyor (David Claypool – retired Ramsey County Surveyor) to lead field notes indexing team. David will start on September 15th.
- Project Advisory Committee was created and held its first meeting on August 4th to discuss the project with the U.S. Bureau of Land Management (BLM) and Science Application International Corporation (SAIC), and review the scanning RFP specifications.
- Memorandum of Understanding (MOU) between MnGeo and BLM fully executed on August 10th.
- Received initial proposal and estimate from SAIC for a MN version of BLM's Cadastral Survey System (CSS) software including custom modifications, installation and training. CSS is the field notes indexing system that will be used in the project.
- Field Notes Scanning RFP published by MMD on August 31st. Responses due September 30, 2010.
- Acquired copy of the GLO map TIFF images (~3,600 files) from MHS. These are the highest resolution versions of the GLO maps scanned in 2004.

MnGeo Activities Scheduled for September, October, November

September:

- Review and update GLO map TIFF images as needed.
- Rename GLO map images to be compatible with BLM.
- Complete negotiation and implement agreement with SAIC.
- Complete Mn/DOT staff mobility agreements.
- Ship TIFF images to BLM who will convert them to a MrSID format for input into CSS.
- Acquire and prepare computer hardware and third party software for CSS.

October:

- Award scanning bid to vendor, negotiate and implement agreement.
- SAIC installs and tests MN version of CSS.
- Minnesota GLO maps are imported into CSS and matched with BLM duplicates.

November:

- Scanning vendor begins digitizing field notes.
- SAIC / BLM staff train MN project team to use CSS.
- Final scanning and indexing processes are synchronized and implemented.
- Begin indexing the MN original set of GLO maps and field notes.

Issues

- The project is about a month behind our original schedule. Contracts with BLM, SAIC and the preparation/publishing of the scanning RFP took longer than expected. If needed, additional resources will be added to indexing the field notes to complete project by June 30, 2011.
- The integration of Minnesota's scanned GLO maps with BLM's CSS will be much more challenging than BLM or SAIC expected. To ensure that we maintain the integrity of BLM's existing database for Minnesota, SAIC will have to create a custom map import module for CSS. However, the results will yield a more comprehensive database – one that includes the notes, original GLO maps (from Minnesota) and duplicate maps (from BLM) which often include information not found on the original. The duplicate maps are ones that were drawn from the field notes after the originals were generated. BLM will at some point need to update its database and applications to be able to recognize and utilize the dual maps.
- Using the custom SAIC/CSS map import module, project staff will need to index and relate the MN original GLO maps to BLM's duplicates – a step not originally anticipated by BLM, SAIC or MnGeo.

Minnesota Broadband Mapping

1. Additional State Broadband Data Development (SBDD) awards are expected to be announced in the week of Sept. 27, 2010. Grants totaling approximately \$100M-\$200M to support broadband mapping are anticipated. Connected Nation requested \$2.76M for mapping activities in years three through five for Minnesota.
2. Only two of the 86 broadband providers in Minnesota have refused to participate in the project: A Better Wireless; and Nextera Communications. Participation is voluntary and provides some free marketing for providers on the broadband map. Know anyone at

either that you might influence to join in?

3. Connect Minnesota will be generating shapefiles from provider data during September 2010.
4. OET's MNET section and DNR field operations group have both agreed to contribute to the Community Anchor Institutions data collection effort. Their data will significantly enhance the CAI dataset. Thank Jim Johnson and Dan Kuntz if you run into them.
5. Connect Minnesota delivered the first dataset from the new project to MnGeo in June 2010. The next dataset is due to NTIA on Oct. 1, 2010.
6. Connect Minnesota is at: <http://connectmn.org/>

Critical Infrastructure Data: Structures Collaborative

Last spring MnGeo staff and the Emergency Preparedness Committee (EPC) completed Phase One of the Minnesota Structures Collaborative for the NSDI Cooperative Agreements Program (CAP). In April 2010, USGS notified MnGeo that it would provide \$25,000 to make several significant enhancements to the Collaborative dataset and web-based data maintenance module. We just received the paperwork for the USGS grant to further this project and expect to begin work in late October or early November - a bit later than planned.

However, in late August MnGeo was able to jump-start the enhancements with funding from DNR's Firewise program with the focus on adding extra security and data management processes to the web data module. The database has been converted to MySQL, system technical documentation has been written and loaded in a Wiki, a standard version of GeoMoose has been implemented, changes have been made to input screens to make them more user friendly, and a zoom-in-and-out feature based on an address has been created. These changes will help support the planned vetting of fire stations in cooperation with the State Fire Marshal's Office.

Staff have also been working to identify and evaluate sources of State of Minnesota owned and leased building locations. Currently the State uses Archibus to track about 90% of its owned buildings. However, with the exception of DNR's buildings, many lack an accurate X-Y coordinate. The project team also discovered that the buildings managed by the State Fair, U of M, MnSCU, and the Minnesota History Center are not currently included in the Archibus database. Staff will complete their evaluation this month with the goal of collecting and loading building locations into the Collaborative database later this year.