

Minnesota Geospatial Advisory Council Meeting

December 7, 2016

Blazing Star Room, Ground Floor, Centennial Office Building

658 Cedar St., St. Paul, MN 55155

11:00 a.m. – 2:00 p.m.

Agenda

1. Call to order (Chair)	11:00	15 min
a. Introductions		
b. Update on members		
c. Approval of agenda		
d. Approval of meeting minutes from 9/28/2016		
2. Statewide Project Prioritization (Kotz)	11:15	50 min
3. Break Networking	12:05	30 min
4. Review and accept committee and workgroup summaries (All)	12:35	10 min
5. LiDAR/Hydrology panel and results from GIS/LIS conference (Sjerven)	12:45	20 min
6. Outreach Committee update on open data survey (Kne & Geurts)	1:05	20 min
7. Geospatial community calendar & discussion forum -GIS/LIS Board feedback (Sjerven)	1:25	10 min
8. Legislative updates	1:35	10 min
9. Announcements or other business	1:45	15 min
10. Adjourn	2:00	

Agenda Item 2. State Wide Project Prioritization

At our September meeting we discussed how we could fulfill our responsibility to provide project priority recommendations to MnGeo. We agreed on a general process, which was further defined and approved by the GAC Leadership Team and sent to all GAC members. Members were then asked to identify candidate state wide geospatial projects and initiatives to consider as recommendations to MnGeo. Finally, members were surveyed to identify their sector's need for each project/ initiative.

Preliminary work was then done to identify the success factors defined in the prioritization process (provided below). Further information and discussion will be provided at the GAC meeting.

Needs Survey Results

Response Options

- Critical need (3 points)
- Very important (2 points)
- Nice to have (1 point)
- Not needed (0 points)

Project or Initiative Name	Value Score	Ave	Critical	Very Import	Nice to Have	No Need
All Data Free and Open	44	2.32	7	11	1	0
Image Service - Sustain	44	2.32	9	7	3	0
LiDAR Committee - Move Forward	35	1.84	2	13	3	1
Image Service - HTTPS, Tiling, Etc.	35	1.84	3	12	2	2
Parcel Data	34	1.79	3	10	5	1
Address Points Data	33	1.74	2	10	7	0
Street Centerline Data	32	1.68	2	10	6	1
EM Damage Assess Data Standard	31	1.63	4	6	7	2
Basemap Services	30	1.58	2	8	8	1
Archiving Policy/Procedure	30	1.58	3	6	9	1
Image Service - Dozens of Years	29	1.53	3	6	8	2
Geocoding Service	28	1.47	2	6	10	1
Parks and Trails Data Standard	28	1.47	1	7	11	0
Point-in-Poly Lookup Service	23	1.21	0	7	9	3
Address Points QA/QC Tool	20	1.05	1	3	11	4
Real Time Assess/Planning Tool	18	0.95	1	4	7	7
Tillable Change Finder	13	0.68	0	3	7	9

Survey Questions

1. Your name

How great is your sector's need for each of the following state wide geospatial projects/initiatives?

2. State wide publicly available parcel data (including a data standard)
3. State wide publicly available street centerline data (including a data standard)
4. State wide publicly available address points data (including a data standard)
5. State wide publicly available Geocoding service
6. State wide publicly available Point-in-poly lookup services (for Counties, CTUs, legislative districts, etc.)
7. MN-focused basemap services
8. Parks and trails data standard
9. All public geospatial data in MN is free and open to everyone
10. The development of an active LiDAR Committee and additional support to move us forward toward updated LiDAR data and related standards.

Imagery Service

11. Assurance that the current MnGeo imagery service will be maintained and improved via a sustainable funding model, including policies on what layers are added and removed over time?
12. Having aerial photography collections from dozens of years and geographic areas, with no retirement or removal of layers within a freely accessible imagery service
13. Improvements to MnGeo imagery service capabilities, such as HTTPS, tiling, downloading options, and increased refresh frequency?
14. A policy and procedures for archiving and preserving historical geospatial data
15. An emergency management damage assessment data standard for rapid, post-event damage assessment GPS field collection
16. A master address points QA/QC tool – known as the 'Fishbone tool'
17. A real time assessment and planning tool similar to what Oregon has
18. A tillable change finder like Pictometry's ChangeFindr.

Additional Information for Survey Questions

10 The development of an active LiDAR Committee and additional support to move us forward toward updated LiDAR data and related standards.

Here are some of the key items that this project/initiative would likely include

- Work toward coordinating new LiDAR collections via LiDAR committee and 3DEP process.
 - Special Projects (regional/watershed)
 - Statewide
- Facilitate development and or endorsement of DEM hydro-modification standards developed by MNIT@DNR
- More involvement with Clean Water Fund projects related to data development in support of LGU clean water projects and implementation at the local level (SWCD). This includes data development guidance/standards.
 - For example, BWSR receives a lot of Clean Water Fund monies, they give it to LGUs via AIG grant process, LGUs write RFPs, contractors are hired, data is developed without guidance or standards, data sits at LGU level without the agencies able to capitalize on this taxpayer investment by conducting authoritative QA/QC, publication and dissemination.
- Endorse/support QA/QC process of review of digital dams breach lines

14 – A policy and procedures for archiving and preserving historic data.

This includes all of the state-wide datasets you have listed, but the focus is how to ensure historic data will be preserved. This is important to the education sector as we often have request for time series data to measure change. An example would be land use, zoning, or parcel ownership.

#15 – Emergency Management Damage Assessment Data Standard: Data standard for the rapid ‘post-event’ damage assessment GPS field collection.

- All too often, GIS people get left out of the emergency management planning process.
- Immediately after a disaster like a tornado, flood, or train derailment \ explosion, our local Fire Department and Emergency Management group will need to go out and perform a quick damage assessment field data collection.
- Currently, I am not clear on exactly what information needs to be collected, and have had no assistance from local emergency management staff on exactly what they will require. In the event of a disaster, it would be very difficult to quickly setup a field collection project to gather the correct information. A cluster would best describe it.
- FEMA requires them to rapidly provide certain information, but I don’t know what their specific data elements would be.
- Minneapolis Fire shared some of their preparation data for this process with Moorhead Fire, but our local Fire does not want to use their same attributes.
- ESRI has a Collector app for Damage Assessment that can be downloaded, but now we have another attribute schema to deal with.
- It would be extremely valuable for a Minnesota data standard to be developed in conjunction with Minnesota Emergency Managers and FEMA for Damage Assessment field collection. Cities and Counties in Minnesota would find it easier to be better prepared in the event of a disaster to appropriately support our local emergency management personnel.

#16 – Master Address GIS Points QA\QC Tool - known as the ‘Fishbone tool’.

- I first saw this tool demonstrated at the ESRI User Conference in San Diego in 2003. It was, unfortunately, written in Avenue.
- The <attached PDF> is from a presentation I made at the ND User Conference back in 2005, when I was GIS Coordinator in Fargo. I had worked with a free-lance programmer located in Western Minnesota who wrote a vba application that was able to be run in ArcGIS for Desktop ‘pre-9.x’. It has not worked since around 2006. It would be a valuable tool for quality checking GIS Address points against the street centerline.
- The tool reads the (parsed) address fields in the address points, and geocodes them to the appropriate location along the street centerline segment. A polyline file is created that connects the address point to the street centerline, this is a great visual tool for assessing the accuracy of your address points. In the 2 page PDF attachment, the second page shows how I found address points (originally created as centroids from parcel polygons) that had incorrect street types entered into the tax database many years ago. It is almost impossible to find these while viewing tabular data.
- I have the original ArcMAP MXDs with the vba code, if this could be utilized to jump start a project to resurrect this process and create a tool it would greatly benefit local government GIS professionals in Minnesota, especially with the Next Gen 911 project requirements.
- Expanding this type of functionality to assist with geocoding MSAG and ALI data to our GIS data would also be worth looking in to

#17 – A real time assessment and planning tool, similar to what Oregon has.

[Link](#) to Oregon’s application.

#18 – A tillable change finder like Pictometry’s ChangeFindr.

Comment from a stakeholder:

- “The way I see this working is for analytics in the assessors dept. and maybe the ditch office. I think we need to be able to compare a GIS layer which identifies where buffer strips are required by law with a Pictometry layer which identifies where there actually is ground cover meeting the requirements.”

GAC Project Prioritization Process for Recommendation to MnGeo

This document identifies a process for the MN GAC to identify and prioritize state geospatial projects and initiatives, to provide a recommendation to MnGeo. It is designed to assess three important criteria:

1. Value of projects to the Minnesota geospatial community as represented by GAC members
2. Likelihood of project success
3. Collective wisdom of the MN Geospatial Advisory Council

1. Create a list of proposed projects

- a. Ask MnGeo to provide a list of existing and proposed state geospatial projects and initiatives.
- b. Give the GAC an opportunity to add additional projects and initiatives. Is there anything missing?
- c. Create a final list of projects and initiatives to be prioritized.

2. Assess the value of each project – (via web survey to GAC members)

- a. Prepare GAC members
 - i. Send the list of projects and initiatives to GAC members.
 - ii. Tell them they will soon be asked to complete a survey defining the degree to which the sector they represent has a business need for the results of each project or initiative.
 - iii. Give them time to check in with others in their sector about this. (Because of the timing, we will only have 2 weeks to do that this year. In the future we will likely want to provide more time to allow members to check in with sector user groups, etc.)
- b. Send survey to GAC members asking: “**How great is your sector’s business need for the results of this project?**”
 - i. High – critical to the mission of my sector
 - ii. Medium – very important to my sector
 - iii. Low – nice to have for my sector
 - iv. No business need for my sector
- c. A few additional questions may be asked

3. Assess likelihood of success of each project

- a. Follow up with involved stakeholders to assess key factors related to likelihood of success
 - i. What is estimated effort to complete project? (person/hour categories)
 - ii. Is funding required? If so, is it available?
 - iii. Does a committed project owner exist?
 - iv. Does a committed project team exist (if needed)?
 - v. Does an active, high-level project champion exist (if needed)?

4. Calculate preliminary priorities based on results (See spreadsheet)

- a. Create a prioritization spreadsheet to calculate scores and create preliminary priorities.
- b. Notes on methodology
 - i. Roles and funding: exist = 2, iffy = 1, doesn’t exist = 0
 - ii. Project owners: exist = 3, iffy = 1, doesn’t exist = 0
 - iii. Effort level in person/hours, including all team members, meetings, etc, but not including time paid via a budget (e.g. paid vendor).
 1. Low (Easy score = 3): 1 – 200
 2. Medium (Easy score = 2) 200-400
 3. High (Easy score = 1) 400+
 - iv. Likelihood of success score = sum of above scores

- v. Value score = sum of all responses from survey to CC members
 - 1. High need = 3
 - 2. Medium need = 2
 - 3. Low need = 1
 - 4. No need = 0
- vi. Priority Score = Value score multiplied by Success score

5. GAC adjusts priority rank

- a. At GAC meeting show the spreadsheet & get corroboration from GAC (any errors?)
- b. Priority rank will initially be the same as priority score
- c. GAC can then discuss and adjust priority rankings if desired based on other factors (group wisdom)
- d. GAC should also decide which projects to completely remove from the priorities (not worth doing at this time).
- e. Where a project is important, but missing roles or funding, GAC could re-evaluate in the future.

Agenda Item 4. Review and Approval of Committee & Workgroup Summaries

Outreach Committee

Report date: November 28, 2016

Prepared by:

Kari Geurts, kari.geurts@state.mn.us

Len Kne, lenkne@umn.edu

Geoff Maas, geoffrey.maas@metc.state.mn.us

Meetings:

The Committee has not met during the previous quarter, although a sub-group working on the Open Data has been regularly meeting about the Open Data Survey.

Progress on work plan:

The committee has identified two activities for this year.

- Draft, execute, and report on a survey of Minnesota counties and their barriers to adopting a free and open data policy.

The survey was sent in late August, with 59 of 87 counties responding. In October, a handful of the Committee members presented the survey results in a session at the MN GIS/LIS conference. The session was attended by 25 people and provided a good discussion on the state of Open Data in Minnesota. For detailed survey results, refer to the MN GIS/LIS presentation here -

https://www.dropbox.com/s/nlgroe5in6jn08t/OpenDataSurveyPresentation_MNGISLIS_Conference_October2016.pdf?dl=0

Geoff, Kari and Len will be presenting a similar talk at the MN Government IT Symposium on December 8th and as a poster at the Association of Minnesota Counties conference on December 5th. The Committee will meet prior to the December 7th GAC meeting to discuss how to use the survey results.

- Start collecting GIS success stories that can be used to promote the value of GIS to a wide range of stakeholders.

We have collected several stories related to the importance of Open Data, including stories from city, county, and state government; the State Auditor's office; private sector; and academia.

Additional comments:

None

Parcels and Land Records Committee

Report date: 11/28/2016

Prepared by: George Meyer

Meetings:

Last meeting, informal, unofficial meeting at MN GIS/LIS as part of the Arrowhead region user group presentation.

Progress on work plan:

Still under 90 day review period. Awaiting returns/comments on the current proposed standard until 1/20/2017.

Additional comments:

Jeff Reinhart from MN DNR has done extensive work in creating a python script which can assist counties in converting their data into the standard. He has provided this up on a github page.

Standards Committee

Report Date: November 17, 2016

Prepared By: Geoff Maas, geoffrey.maas@metc.state.mn.us, 651.602.1638
MetroGIS Coordinator, Metropolitan Council
Chair, Standards Committee

Meetings: Last meeting occurred (as phone conference) on Aug 31, 2016

No meetings since last report to the GAC on September 8, 2016

Joint meeting of Standards Committee and Land Records/Parcel Committee is planned for February of 2017 upon conclusion of Parcel Data Transfer Standard review period.

Past meeting minutes are available here: <http://www.mngeo.state.mn.us/committee/standards/>

Committee Progress and Accomplishments:

A) Work Plan Document

A draft Standards Committee Work Plan document and Committee Charter was developed in August 2016 and reviewed by Committee members in September 2016. A modified version of the Standards Committee Work Plan containing the comments and revisions of Committee members will be published in Dec 2016/Jan 2017 with anticipated approval by the Committee at its planned February 2017 meeting.

B) Parcel Data Transfer Standard Progress

The proposed Parcel Data Transfer Standard was published on October 4, 2016 for a ninety (90) day public review period. Over 450 agencies and individuals were contacted, including county GIS staff, survey departments, state agency stakeholders, local government interests, regional agencies and the Minnesota Association of Assessing Officers.

In addition to the proposed Parcel Data Transfer Standard document, a detailed 7-page FAQ resource was prepared and a sample data set in the proposed standard (one Congressional township in Anoka County) was provided to prospective reviewers and data consumers. All these materials, as well as instructions on how to respond and provide input and comments are found here:

http://www.mngeo.state.mn.us/committee/standards/parcel_attrib/parcel_attrib.html

As of this writing, over twenty (20) specific comments on the proposed Standard have been received with more anticipated. Staff at MnGeo and the committee chair are collecting the comments received and will publishing a report of the collected input when the review period closes on January 20, 2017.

The Committee will convene to discuss and determine next steps on the process for approval of the proposed Standard at its planned February 2017 meeting.

C) Additional Committee Work Activity

A glossary or terms resource and standards approval work flow (flow chart) is also in development by the Committee chair. These resources will be completed in January 2017 and published for the review of the Standards Committee members for discussion and potentially approval at the planned February 2017 meeting.

Emergency Preparedness Committee

Report date: December 1, 2016

Prepared by:

Stephen D. Swazee Sr., Emergency Preparedness Committee (EPC) Chair, 1360 University Avenue West, Suite 455, St. Paul, MN 55104. 651-285-5015 (O), 612-239-6981 (M)

Past meetings:

- **September 8, 2016, 1-3:00 PM**, Rice Street Library, St Paul, MN. **Open discussion on EPC FY 2017 objectives, meeting management and growing USNG implementation opportunities.** All present.
- **June 9, 2016**, quarterly meeting cancelled due to recent UMGEOCON USNG workshops.
- **May 25 – 26, 2016**, UMGEOCON USNG workshops and presentations.
- **March 10, 2016, 2-4:30 PM**, Rice Street Library, St Paul, MN. Featured talk: **Slippery Slope: Towards Better Understanding and Prediction of At-Risk Hillsides**, Dr. Carrie Jennings, MN DNR.
- **December 10, 2015, 2-4:30 PM**, Amherst H. Wilder Foundation. Featured talk: **MnGeo Common Operating Picture Tiger Team Proposal**, Lt. Col. Guy Konietzko (MNNG, Ret.), GeoComm.

Next meetings:

- **December 15, 2016, 2-4:00 PM**, Dakota County Northern Service Center, 1 Mendota Road West, West St. Paul, MN. Featured talk: **Capabilities of the Minnesota Army National Guard GIS Program**, Chief Warrant Officer 2 David Bendickson, Geospatial Engineering Technician, Minnesota Army National Guard's 34th Infantry Division. After all official functions conclude, **holiday mixer to follow 4:30-6:00 PM**, Fireside Lounge Bar and Restaurant, 1288 S Robert St, West St Paul, MN.
- **March 9, 2017, TBD.**

Progress on work plan:

- Situational Awareness Sharing Initiative (SASI) Tiger Team Charter and Work Plan submitted to MN GIO Ross for review and discussion. No progress to report.
- U.S. National Grid briefings/outreach given or scheduled since last report:
 - September 19, 2016 - Kohlstedt, Knippel, AMEM Conference, Breezy Point, MN
 - October 22, 2016 – Basques, 2016 MnUSA Snowmobile Conference, Silver Bay, MN
 - November 19, 2016 – Swazee, Klassen, Science Museum of Minnesota, St. Paul, MN
 - December 13-14, 2016 – Swazee, MN Sheriffs' Winter Conference, Alexandria, MN
 - January 10, 2017 – Swazee, Wakota CAER, Cottage Grove, MN
 - February 1, 2017 – Knippel, MEMA, Bloomington, MN
 - February 7-8, 2017 – Kohlstedt, Knippel, HSEM Governor's Conference, Brooklyn Center, MN
 - March 15, 2017 (tentative) – Swazee, CGA 811 Safety Conference & Expo, Orlando, FL
- As part of the USNG mapping project recently completed by SharedGeo for the Iowa Division of Homeland Security and Emergency Management, SharedGeo worked with Iowa GIS personnel and first responders to significantly enhance the MXD files previously developed for MnGeo. These new files, documentation, and related technical advancements will be made available to MnGeo during 1st qtr CY 2017.

- In response to a November 30, 2016, note from MGAC Chair Kotz, EPC Chair Swazee has indicated he believes potential 2017 MGAC project, “#15 – Emergency Management Damage Assessment Data Standard: Data standard for the rapid ‘post-event’ damage assessment GPS field collection,” is an appropriate project for the committee. Swazee indicated he will begin researching the issue and assessing availability of resources. Swazee will report back to Kotz before the next meeting of the MGAC.

Additional comments: Believe significant issues as previously reported on February 24, 2016, remain.

Digital Elevation Committee

No report. Committee is being reevaluated.

Hydrography Committee

No report. Committee is being reevaluated.

Metadata Workgroup

No report. Workgroup is sun setting.