Minnesota Geospatial Advisory Council Meeting Minutes

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.

Attendees

Members Present: Brad Anderson, City of Moorhead; Andra Bontrager, Minnesota Center for Environmental Advocacy; David Brandt, Washington County; Scott Freburg, MN.IT @ Dept. of Education; Kari Geurts, MN.IT @ Natural Resources; Blaine Hackett, RESPEC; Andrew King-Scribbins, Hennepin County; Len Kne, University of Minnesota; Mark Kotz, Metropolitan Council; John Mackiewicz, WSB & Associates; Philipp Nagel, City of Waseca; Ben Richason, St. Cloud State University; Cory Richter, City of Blaine; Dan Ross, MnGeo; Gerry Sjerven, Minnesota Power; Alison Slaats, MN.IT @ Agriculture and Board of Animal Health; Annette Theroux, Pro-West & Associates; Michelle Trager, Rice County; Danielle Walchuk, Region Nine Development Commission.

Members Absent: Jeffrey Bloomquist, Farm Services Agency; Victoria Reinhardt, Ramsey County

Non-Members Present: David Bendickson, MN National Guard; Sam Blackburn, Carleton College; Will Craig, University of Minnesota, retired; Mike Dolbow, MnGeo; Jenna Greene, Carleton College; Brad Henry, University of Minnesota; Mike Koutnik, Esri; Justin Lee, Carleton College; Geoff Maas, MetroGIS; Nancy Rader, MnGeo; Matt Taraldsen, Esri; Sean Vaughn, MN.IT @ Natural Resources; Sally Wakefield, MnGeo; Ron Wencl, U.S. Geological Survey.

[Meeting slides are online](#).

Call to order (Chair) and Introductions

Kotz called the meeting to order and asked for introductions. The group provided introductions.

Update on members

Rader reported: We now have three member openings: Federal Government, Tribal Government, and At-Large. Applicants should use the Secretary of State open appointments system. Even though the openings didn't make it into the recent announcement, people can apply now.

Bendickson asked if the position was only for the remainder of the term (through June 30, 2017), and Rader confirmed that it was. Everyone will need to reapply for the next two-year term.

Approval of agenda

Kotz noted changes to the agenda. After legislative updates there will be an item on MnGeo's GovDelivery usage. We may move the LiDAR topic depending on attendees coming. No other changes were proposed. Changes approved by voice vote.

Approval of meeting minutes from 9/28

Minutes considered approved based on no changes proposed.

Statewide Project Prioritization (Kotz)

Kotz began showing slides on Project Prioritization (for more details, see the agenda packet materials). Since the last meeting we've identified projects to prioritize, and advising MnGeo on priorities is a big part of our mission. This is part of the legislation that authorized us. The benefit to doing prioritization is aligning resources to the projects most valuable to the community.

It also helps us identify projects that might be able to move forward without MnGeo's involvement. It can identify gaps and inform work plans for next year.

Kotz reviewed the slide on the process. We have a list, now the first big step is to assess the value of each item in the list. Kotz thanked the members for 100% response rate on the survey. Our next step is to assess the likelihood of success. We'll use a spreadsheet today to work on that and visualize it. Kotz developed that with some input from Ross and Dolbow.

Kotz reviewed the slide on the likelihood of success. Factors include estimated effort, funding needed, a committed project owner, a project team, and a high level champion. Higher scores indicate a higher likelihood of success; we'll review the draft scores today, along with making adjustments if necessary, discussing gaps, creating the priorities for the GAC, and limit the list to a realistic number of projects.

A number of projects are already being worked on at MnGeo, such as basemap services. Kotz relayed that Ryan Mattke has agreed to be an owner on an archiving project. Projects lower on the list have some definite gaps in the scoring system, and would be candidates for removing from consideration in 2017.

The top two items on the list were a cut above the others: making all data free and open and sustaining the Imagery Service. Ross asked if we disagreed with the score, what do we do? Kotz said we can change the rank if we choose.

Ross noted that free and open data is not a "medium" level of effort, it's a "high" level of effort, and it's not something we'll be able to complete in 2017. Kotz clarified that the list is merely what we agree we'll work on in 2017. The Outreach Committee said there is only so much we can do on the item, therefore the effort is medium, and it's just going to take a long time. Kne clarified that it also recognizes that Committee members have existing jobs to do. Kotz clarified that the Outreach Committee Chair (Kne) is the owner, and Ross is the champion.

Regarding the Image Service sustainability, Henry noted that there's a dollar amount assigned to other activities, but not to this one. Ross noted that MnGeo gets a General Fund appropriation, and right now we use those funds to sustain the Image Service. But now the question is how do we sustain it as we add layers. This year we had four counties offer 6" imagery, and we need to figure out how to accommodate the significant amount of storage that goes with that.

Geurts asked how we evaluate the "active" vs. "proposed" projects. Kotz said that if it's active but the GAC says it's not needed, the GAC wouldn't work on it. (MnGeo might still work on it.)

Kotz asked if members agreed with keeping the top two ranked highest and members indicated agreement. He then moved to the "LiDAR Committee" moving forward - not solving all LiDAR related problems, but moving the Committee forward. Ross noted that there are definitely still some gaps in the priority. We have several champions such as Ross, Tim Loesch, and Sjerven. Vaughn and Sjerven both indicated that they'd like to continue being involved. Kotz noted that the high interest shows that we have some likelihood of success.

Ross said that there was good support for a Committee at the conference session. Vaughn said that things didn't work well in the last four or five years, but a new Committee might help. He appreciates the strength and backing of the GAC. Geurts said there is a process and structure for creating the Committee. Sjerven proposed a meeting within the next month. Non-members are allowed to participate.

Kotz moved on to the item on improvements to the Image Service. It was identified as a very high need from members. Resources are in place, but it's a high amount of effort. Dolbow asked which improvements were most important. Kotz noted that might be another question to survey. Ross noted we might have to refine our requirements on each of these items in 2017.

Free and open parcel data was the next item reviewed. The [GAC Parcels and Land Records Committee](#) agreed to be the project owner (George Meyer). Ross noted that only 20 counties have open data policies, so do we just publish those counties, or do we do more? Kotz noted that we could use a champion for this item. Geurts noted that the Outreach Committee can assist, as the data layer has been identified as a key need.

Kotz moved on to the address point data item, which is similar to parcels. There is an active team (Adam Iten's NG9-1-1 team) on this effort, along with centerlines. Theroux asked if the effort on the parcel data depends on the relevant transfer standard being approved, and Kotz said that it does. Ross agreed, adding that the standards concept also applies to address points and centerlines.

Kotz moved to the Emergency Management Assessment Damage standard. The [Emergency Preparedness Committee](#) may be able to create a workgroup. Henry asked for more detail, and Kotz noted that details were in the agenda packet. Anderson noted that the fire manager from Moorhead contacts him at least once a year on this item, and it seems that everyone is running in their own direction on this type of effort. There's no standard on what kind of information needs to be collected after a damaging event like a tornado. Henry noted that MN 2050 has done a statewide survey on infrastructure, and a fire director from the metro has mentioned the exact issue. It's not just a GIS issue, it's an emergency management issue.

Ross noted that there's a national geospatial preparedness committee sponsored by NSGIC. On Friday, Maryland is demoing their solution. Mackiewicz has a template that WSB & Associates created, and would like to know more about the NSGIC group's efforts. Ross noted that this is an opportunity to engage on the nationwide level. Koutnik noted that since it's FEMA-driven, it's very important to consider the funding. In Esri's experience, the information that needs to be collected depends on the type of incident (flood, tornado, quake, etc.). The problem is that every FEMA Region has their own thoughts on how this is supposed to work. Ross noted that every state has their own thoughts as well, and a movement towards a standard is taking place – it may be customized for different types of events. Koutnik said that we need to have our voices in that dialog, or the coastal regions will dominate it.

Anderson noted that they are more prepared for flooding events than tornado events, and that an oil train derailment recently spurred his thoughts on the issue. Kotz noted that everyone has this need, so there's a lot of

impetus to collaborate. Richter added that not having a standard means that operations in response to an event are basically controlled chaos: as a result of so many tools out there, she has had to integrate information from multiple tools, which is a real problem in an Emergency Operations Center (EOC) situation. If we had a large-scale disaster, we'd also be looking at integrating multiple EOCs, which would be another layer of complexity. It's impossible to fix that during an emergency.

Kotz noted that there are a number of folks interested present, so if you're interested, let Kotz know and he'll relay the interest to Steve Swazee for part of the EPC effort. It could be a standalone workgroup under the EPC. Brandt, Mackiewicz, Nagel, and Anderson all expressed interest. Kotz asked if we wanted to move it up in ranking. No members expressed a need to do that, but just because it's lower on the list doesn't mean nothing will happen. Bendickson noted that perhaps after a workgroup comes up with a recommendation, there will be a higher priority to engage on some work.

Kotz moved to statewide basemap services. No members expressed desire to move it higher or lower in the list. He moved to the archiving item. Most organizations keep archives of some of their geospatial data, but not all. If there were some guidelines on archiving, that would be very valuable. Ryan Mattke agreed to be the owner of a GAC workgroup. Kne noted that we need some more time to flesh out the idea, and proposed that we not actually push for it as a priority in 2017. As a result, it will move lower on the list, but it won't be removed. Kne also referenced a just-published article[1] that provides background on archiving geospatial data and offers a framework for developing a program to archive the state of Minnesota's spatial data at the University of Minnesota.

Kotz moved to the last of the image service items: the question is whether or not all imagery needs to go into the service and never be removed. That's nice to have, but requires resources. This lower ranking is a good indication that if MnGeo has limited resources, they might be able to let some imagery collections go and not let it take away from other priorities. The GAC can send the message that other image service topics are more important. Mackiewicz agreed that newer, higher resolution imagery is more important, and any needs for archived photos can typically be handled on their own. Trager asked if it fit with archiving, and Dolbow agreed that it does, since we would typically only take down a layer if it's available elsewhere in a service or in an archive.

Kotz proposed that we put a "No in 2017" on the bottom four items: point-in-poly lookups, address points QA/QC, Real time planning/assessment, and tillable change finder.

That left two items, Geocoding and Parks and Trails Data Standard. For the geocoding service, a work team exists but there are other gaps. Brandt noted that the metro counties are actively working on the parks and trails standard. Kotz added there is a statewide group working on this too. Ross suggested we leave it on the list to show relevance, but there might not be significant GAC effort. For geocoding, Ross noted we have an internal service, and asked if we should make it public? Kotz noted that MetroGIS is considering a free metro service. This is often an equity situation: organizations with their own GIS shops can make their own geocoding services, but others cannot. Ross noted that such a service should also support batch processing. Kotz asked if we should leave these on the list, and no members disagreed.

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[1] Kevin R. Dyke, Ryan Mattke, Len Kne & Shawn Rounds (2016) Placing Data in the Land of 10,000 Lakes: Navigating the History and Future of Geospatial Data Production, Stewardship, and Archiving in Minnesota, Journal of Map & Geography Libraries, 12:1, 52-72, DOI: 10.1080/15420353.2015.1073655

Dolbow asked if the list represented a realistic number, and Kotz noted that it's a prioritized list, and it helps determine which ones get worked on first.

Koutnik asked for details on the last two items, and Kotz noted that the details were in the agenda packet handout. Trager noted that MCCC (Minnesota Counties Computer Cooperative) is likely to pursue an effort on the tillable change finder, and that it's more important to outstate counties than metro counties, because tillable land affects tax rates. For Real Time Planning and Assessment, Trager noted that the University of Oregon has an app that they are willing to share. Kotz noted that without a workgroup to tackle this, it doesn't make much sense to work on it. Richter noted it might be more relevant when a standard is created for information to collect.

Kotz thanked the group for the prioritization exercise. Here is the final table:

GAC Rank	GAC Focus in '17	Project or Initiative Description	Status
1	Y	All public geospatial data in MN is free and open to everyone	Active
2	Y	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	Active
3	Y	Development of an active LiDAR Committee and additional support to move us forward toward updated LiDAR data and related standards	Proposed
4	Y	Improvements to MnGeo imagery service capabilities, such as HTTPS, tiling, downloading options, and increased refresh frequency	Active
5	Y	State wide publicly available parcel data (including a data standard)	Active
6	Y	State wide publicly available address points data (including a data standard)	Active
7	Y	State wide publicly available street centerline data (including a data standard)	Active
8	Y	An emergency management damage assessment data standard for rapid, post-event damage assessment GPS field collection	Idea
9	Y	MN-focused basemap services	Active
10	Y	State wide publicly available Geocoding service	Active
11	Y	Parks and Trails Data Standard	Active
12	N	A policy and procedures for archiving and preserving historical geospatial data	Proposed
13	N	Having aerial photography collections from dozens of years and geographic areas, with no retirement or removal of layers within a freely accessible imagery service	Proposed
14	N	State wide publicly available Point-in-poly lookup services (for Counties, CTUs, legislative districts, etc.)	Idea
15	N	A master address points QA/QC tool – known as the 'Fishbone tool'	Idea
16	N	A real time assessment and planning tool similar to what Oregon has	Idea
17	N	A tillable change finder like Pictometry's ChangeFindr	Idea

Break

LiDAR/Hydrology panel and results from GIS/LIS conference (Vaughn/Ross/Sjerven)

Ross noted that this was a well-received topic at the GIS/LIS Conference and asked Vaughn to add to the slide. Vaughn noted that we had a [Digital Elevation Committee](#) before, and that became a [LiDAR Research and Education Subcommittee](#), which was made up of subject matter experts. Now that we have a statewide LiDAR collection, it's become recognized how much of a fundamental data layer it is.

Now we have all these various business needs converging, and we need key areas of coverage and subject matter experts in the areas of vegetation, infrastructure, and hydrography. We also need managerial membership, as decision-makers that can be involved and can help support moving things forward. His interests are primarily in the hydrology arena – we need a standardized approach to producing a product that meets most business needs.

Ross noted that there is wide acceptance on moving forward a committee. He recommends a committee with workgroups underneath it. What should come next is likely a charter and membership recruitment. Sjerven added that he's interested and has some GIS/LIS Consortium resources, such as a listserv, that he might be able to add. He's going to test some of those resources on other groups and potentially for an Elevation/Hydro Committee. The Consortium is going to reorganize the website in the next quarter or so, making it a good time to evaluate tools.

Review of Committee and Workgroup Summaries

Kotz called for a motion to accept the provided summaries (see agenda packet). The motion was made and approved unanimously.

Outreach Committee update on open data survey (Kne & Geurts)

Kne noted that they have had a few meetings of this Committee, and that they sent a survey on free and open data to a list of board chairs and county administrators (provided by the Association of MN Counties) and the list of GIS contacts provided by MnGeo. They presented the results at the GIS/LIS Conference. He and Maas had a booth set up with a map at a recent Association of MN Counties conference, which really drew the interest of county commissioners. They are presenting a similar talk tomorrow at the IT Symposium.

Kne reviewed the slides on the survey results. One key thing is spreading the word about the GAC and the mission of the Committee. A report summarizing the results will be available soon. 59 out of 87 counties responded to the survey.

The questions differed between counties that have open data policies vs. ones that don't. Some of the survey results are summarized in meeting slides. We asked counties that are not open if they were considering opening the data, and a variety of answers came back. Overwhelmingly, the GIS staff support opening the data, so it's not our colleagues we need to convince, it's the policy makers.

Loss of revenue is the top concern of counties that don't have open data policies currently. Ross noted that the other concerns can just be addressed with education efforts. Geurts agreed, we can identify the obstacles that are really only perceived, and can be overcome with some basic knowledge and seeing success stories.

When reviewing the revenues from data sales, Geurts noted we need to match up those numbers with the staff effort required to respond to data requests in order to see net revenue; counties that either lost money or had very low net revenue could be more receptive to considering opening their data, so we should prioritize contacting them. Ross noted that the costs to respond to data requests are likely much more than the revenue. Koutnik noted that once some governments in Wisconsin actually documented the effort, they consistently saw that they were losing money. Unfortunately, it takes time and energy to do the documentation itself.

Wakefield noted that in addition to quantifiable cost, there's also perceived cost about liability, and the education portion is a big piece of the effort. Kotz noted that there's also some misunderstanding about what can be done under existing open data laws.

Counties that have open policies had similar obstacles to get to the point they did as the concerns raised by those who weren't open yet. Kne reviewed some major themes:

1. A significant commitment has been made to GIS at the county level in MN.
2. There's a broad reach and extensive use of GIS at the county level.
3. The "big four" data sets being asked for from counties are parcels, centerlines, address points, and imagery.
4. There is uncertainty around open data and a wide range of practices.
5. There are key concerns about open data, many of which can be overcome with education.

Kne noted they are collecting testimonials from users about the difficulties of using data that is not falling under an open policy (see slides). He showed a map of policies in the state. Maas reviewed the slide on the benefits of free and open data often relayed by county leadership, some of which were unanticipated. He said that policies have opened up entire conversations at some counties related to all data, not just geospatial data. King-Scribbins noted that Hennepin County is having the same conversation.

Kne noted a slide on benefits that counties with open policies are seeing, and that it would be interesting to now see the benefits that users are seeing. Several slides of user testimonials on benefits were reviewed. Bontrager noted that she sees very high benefits in her work. Maas noted that his graduate students often see high benefits in their research work. Mackiewicz asked about utility information, and Anderson noted that he provides that data to engineering firms frequently. Maas added that he is seeing work towards identifying best practices around utilities, and it's not just saying that everything is open. Mackiewicz added that his company frequently builds interactive maps for customers, and customers often remove utility layers when the map is for public consumption.

Henry asked why cities weren't surveyed, noting that over half of the value of infrastructure in the state is owned by cities. Engaging the cities is important. Maas noted that we don't have all the city GIS contacts yet, but we're creating a list and hope to get to that. Geurts noted that this was also our first effort to know how we can best survey any customer, and it was just to start somewhere. Kne noted that next Tuesday, Kne and Rebecca Otto are presenting the infrastructure transparency tool to the American Society of Civil Engineers. The same data will be presented to the Legislative Water Commission the next day.

Richter agreed that the city level is next, and utilities are going to be a big question. They'll need to research Protected Critical Infrastructure Information (PCII) compliance and educating around that before taking that step.

Craig noted that he appreciated the survey, and observed that we need testimonials from county commissioners, city administrators, or other elected or appointed officials. If we can get those, we'll have a better story to tell the folks who are resisting the idea of open data. Henry noted that with the infrastructure tool, they showed it to many department heads and elected officials, and they did not have objections to showing utility data publicly, and often

enthusiastically supported the transparency. Anderson and Mackiewicz relayed other stories on difficulties in obtaining utility data.

Kne wrapped with a discussion on what's next – they aren't asking for 10 page testimonials, but merely a few paragraphs from folks like elected officials and department heads. Technology is not the issue in making data free and open, instead we have to undertake educational efforts to overcome perceived obstacles.

Bontrager asked if standards need to be implemented with open data, and if that was included in the conversation. If an agency is considering opening data, they may want to know about standards before doing that, to potentially avoid having to restructure their data. Ross noted that it's not on their radar right now; they're more concerned with if they can open the data or not. Kotz noted that standards might be another perceived obstacle that we should tackle after the data is open. Maas added that often standards aren't mandated, but are available as best practices to help with things like aggregating data and solving business needs.

Kne and Maas noted that there are resources available from MetroGIS to help challenge some of the misperceptions out there.

Geospatial community calendar & discussion forum -GIS/LIS Board feedback (Sjerven)

Kotz noted that we have discussed a few new capabilities in past meetings, such as a calendar and a discussion forum. Sjerven noted that a coming reorganization of the GIS/LIS Consortium website will include some additional capabilities such as a listserv. The Consortium Board is going to split up into some workgroups that will look at this, likely around the February board retreat. Hopefully by the next GAC meeting there should be some examples of what can be done. He is willing to work with the GAC and the Consortium on this; if anyone is interested he would like them to contact him. Kotz noted he will add an agenda item for the next meeting on that topic.

Legislative update (Ross)

Ross reviewed the slide. The clarification in the Clean Water Fund Language discussed at the September 28 meeting of the GAC has been approved by the Governor's Office to move forward. There is work on a data standard for Parks and Trails funded by the Legacy Fund. There is a live survey available now around a parks and trails website design for the DNR. Lastly, the buffer mapping project is continuing and updated data was released in November.

MnGeo use of GovDelivery

Dolbow relayed MnGeo's new usage of the GovDelivery tool. He will subscribe all GAC members to the one newsletter for all Minnesota GIS stakeholders, which will contain information about work by MnGeo and their GIS partners at Minnesota state agencies. Information will be distributed about a variety of topics, such as new datasets and services, data standards development, and news from the Geospatial Advisory Council. Members who have ideas for inclusion in the newsletter or questions should contact the team at gisinfo.mngeo@state.mn.us.

Announcements or other business

Freburg relayed great success at the GIS/LIS Conference Educator Day. They also have increased communications with school superintendents. He also noted that the GIS/LIS Board elections are now open.

King-Scribbins noted that Hennepin County is surveying their users on general collaboration efforts.

Walchuk noted that regional government forums are a great place to have discussions about open data, since counties then can talk to each other.

Richter noted that the recent geospatial day at the Science Museum was a success.

Kne noted that the U of M GIS Student Organization has a [career/networking fair](#) coming up on March 21st, 2017.

Anderson and his wife Kay (GIS Manager, Cass County, ND) co-presented on GIS Day at a local university recently. He and Allison Kampbell (GIS Specialist, Carver County) are presenting at the IT Symposium tomorrow; their talk is titled, "A Survivors Guide for the Tech Support Team Person Who Needs to Understand GIS". They have benefited from a Pro-West slide translating GIS terms into IT terms. Also, organizations in his region recently agreed to a Red River Valley photo/LiDAR collect, so a large area is going to be collected via a great collaborative project.

Geurts relayed that the DNR is now presenting a newsletter via story maps. They recently extended training programs to all state agencies, and those classes filled up very quickly. They also have an intern who is spending a lot of time aggregating parcel data and hope to have most of that work completed by the end of the calendar year.

Ross reminded folks to look at the [MnGeo handout](#) on work we've been doing.

Bendickson noted that today is the 75th anniversary of Pearl Harbor, and the naval 4/50 gun that was mounted atop the USS Ward's midships deckhouse is [next to the Veteran's service building](#). This gun was manned by St. Paul reservists, who fired upon a Japanese submarine – the first shot by Americans at Pearl Harbor on Dec. 7, 1941 – hours before the attack on Hawaii.

Maas noted that the comments are coming in on the [parcel data transfer standard](#) and the Parcels and Land Records Committee and the Standards Committee will be reviewing that next month. Kotz added that the MetroGIS address point specifications and the state NG9-1-1 address point specs have been reviewed and merged into a draft standard that will be proposed as a state address points standard. Ross noted he's on a federal committee for this, and that the national address standard (with a minimum content) is likely what we'll be shooting for sharing nationwide.

Kotz noted the next meeting is March 22 and adjourned the meeting.