

Minnesota Geospatial Advisory Council Meeting Minutes

May 31, 2017

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; Jeffrey Bloomquist, USDA Risk Management Agency; 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; Madeline Kerr, University of Minnesota School of Nursing; Mark Kotz, Metropolitan Council; John Mackiewicz, WSB & Associates; Philipp Nagel, City of Waseca; Victoria Reinhardt, Ramsey County; 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; Michelle Trager, Rice County.

Members Absent: Danielle Walchuk, Region Nine Development Commission; Andrew King-Scribbins, Hennepin County; Len Kne, University of Minnesota; Annette Theroux, Pro-West & Associates.

Non-Members Present: Mike Dolbow, MnGeo; Mike Koutnik, Esri; Geoff Maas, MetroGIS; George Meyer, Otter Tail County; Nancy Rader, MnGeo; Chris Sanocki, USGS; Sean Vaughn, MN.IT @ Natural Resources; Sally Wakefield, MN Department of Revenue.

[Meeting slides are online.](#)

Call to order (Chair) and Introductions

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

Approval of agenda

Kotz called for any changes. None were provided. **Motion proposed and approved.**

Approval of meeting minutes from last meeting

Kotz called for approval of the March 22, 2017 minutes. **Motion proposed and approved.**

Process for New Appointments

The new Council term starts July 1 of 2017. Recommendations have been submitted to Ross, who will submit his final recommendations to MN IT Services Commissioner Tom Baden. The plan is to allow enough time for approvals to come before the new Council's first meeting in September.

Review and accept committee and workgroup summaries

Kotz noted that a lot of work is taking place in the new Damage Assessment Workgroup, under the Emergency Preparedness Committee, and that the workgroup will present later. The Outreach Committee will be sending a survey to cities this summer. Kotz called for a motion to accept the committee summaries. **Motion proposed and approved.**

Work Plan for Parcels and Land Records Committee

Kotz asked Meyer for any additions. Meyer replied that the work plan will likely be revised again, although the future revisions will be minor, changing the focus to outreach and sharing the standard around the state. Kotz called for comments or questions. **A motion to accept the work plan was proposed and approved.**

LiDAR funding & update on emerging hydro-elevation committee

Sjerven noted that two new documents ([a draft charter](#) and [a draft work plan](#)) are printed out for the current members and will be shared later. The documents are still considered a work in progress. Quite a bit of growth has occurred in the committee by discovering other groups that are meeting on similar topics, such as a vegetation-focused meeting in Grand Rapids.

The idea of having an overarching “steering committee” is prominent. There are a number of potential members from various interested subgroups, which might be overseen by a steering committee. A chart on the work plan reveals some of those subgroups. The steering committee could “roll up” feedback from the subgroups to relay back to the GAC.

There are still a lot of unknowns, such as who will be in each subgroup and on the steering committee. Sjerven would really like to reach out to state agencies to see if members can be gleaned from various agencies. His desire is to have these documents finalized by August. For now, communicating this process and soliciting feedback of the composition of the subgroups is the focus.

One obstacle for the group is a name for the committee. There have been a number of names in the past, but none of them are considered ideal. Another problem is a way to connect everyone, especially with members located all over the state. Almost every video or audio conferencing system has limitations, and has cut into past meeting times significantly.

Koutnik asked for more details on the concern about the name of the group. Sjerven relayed several comments from folks about various shortcomings of suggested names. LiDAR data is used in a variety of areas and so he’d like to encompass that variety if possible. In a way, this is a “branding” issue. Vaughn noted that historically they used the “Elevation Committee”, because of the variety of formats that were used. Now, virtually all elevation data is coming from LiDAR or IFSAR. Vaughn’s opinion is that we might lose some of the recognition of the technology if LiDAR isn’t recognized. It is also a fundamental technology from which to derive a lot of other products, and that’s important to recognize.

Sjerven noted that his goal is to be inclusive of folks that would be missed if they were somehow excluded by a brand. Richason asked if the subgroups were just topics that were identified, and Sjerven replied they were. Richason wondered if Soils could also be a subgroup, since elevation data is very important to modeling and mapping soils, especially with aspect and slope influences. Sjerven replied that it could be a new subgroup or just listed as a topic in the vegetation group. Vaughn noted that soil mapping is a completely different use of the data,

and would just like a separate subgroup, since soils are very relevant. As an example, the utility of a buffer strip is influenced by nearby slope and landscape, and Richason agreed.

Sjerven noted that they will add a soils subgroup, but this could change the work plan as subgroups grow, or a hierarchy of needs is developed. It could also be that the work plan only focuses on a few subgroups per year. The group wants to use the time wisely.

Ross asked if each of the subgroups should create a work plan, and Sjerven replied yes, that the steering committee would charter the entire group and then vet the individual work plans.

Dolbow suggested High Resolution Elevation as a committee name, and Ross suggested picking one name and be willing to change it over time if necessary. Sjerven noted that it's important for people to recognize what they are getting involved in.

Koutnik noted that there is a natural tension between the data and the applications of the data. You really can't make a choice because both are needed. Perhaps another subgroup is merely around applications of the data, to make sure that the standards will meet the needs of those applications. Sjerven agreed that "what you use the data for" is definitely a component. Vaughn noted that the user viewpoint won't be lost given the current members, who are all users.

Sjerven said one focus will be asking the question, "Is there a standard that will meet the needs of all groups?" because a goal of the committee is to develop a standard. Vaughn noted that one of his major focuses is on LiDAR-derived hydrography, and that developments for both data sets need to happen in harmony. Currently the historical, legacy data products for these data themes do not line up. When hydrography is derived from high-resolution elevation, foundational data tends to line up much more significantly. With USGS's development of 3DEP, we'll see this discussion be driven even further.

Ross asked if we had looked at what other states are doing, and Vaughn noted that the national discussion has brought in state data stewards from around the country, but the problem is that elevation and water people have been separated, but now the USGS is moving toward a combined discussion. Ross noted that if a letter can be composed asking other states about their approach, he can deliver that to NSGIC.

Kotz noted that the organizations of the current members would also be useful in the Charter, and asked that the group send the draft documents to Rader for distribution. Bontrager opined that since so much more than elevation is done with the technology, that some kind of name that identifies the breadth, such as "LiDAR Landscapes" might work. Vaughn agreed that a "buzz word" could help with the name's appeal. Kotz offered that if necessary, the GAC could make the final decision on the name in order to ease the burden on the committee.

Sjerven noted that the draft documents will be vetted more with interested parties before asking for official approval from the GAC. Both are still works in progress, so right now they are just looking for feedback. Koutnik asked if it were worth considering expanding the scope of the committee to something like "3D geospatial data", which is much broader. The collection of 3D data from a variety of sources, for a variety of applications, is growing rapidly. Vaughn noted that the worldwide technology is really moving toward 3D data in all forms. Koutnik noted that Esri has built a 3D model of the oceans to characterize the natural world. Such an approach opens up additional possibilities for analysis. Vaughn noted that users of derived products vs. point clouds are very different user base, and his focus for now is more on the derived products.

MnGeo Boundaries Project update & possible role of GAC

Ross introduced the concept that we need to update our boundary data in Minnesota, in that boundaries have changed and we haven't matched older data up with newer, more accurate collections. There seems to be interest in the community to find a way to update boundaries. He is looking for feedback as to whether or not it is a MnGeo project, or a GAC priority, or both – even if it doesn't need a committee or workgroup. Is there a role for the GAC to play?

Kotz asked what a GAC role or committee would be. Ross replied that it could define the layers we might update, define the procedures to update those layers with new control points, and how ongoing maintenance would take place. There are many technical considerations to dive into. The outcome is a set of procedures and stakeholders to make this happen – it is a multi-year process for sure.

Geurts asked what it meant to have MnGeo lead the effort – is there staff available or a work plan? Ross replied that we had assigned some staff on a part-time basis to develop the idea. When Wakefield worked with MnGeo, a few meetings were held to gauge the interest. Kotz asked who those stakeholders were, and Ross replied that there are a number of state agencies such as DOT, and that they had met with local officials in the Arrowhead GIS user group. There were also conversations with Ron Wencil from USGS.

Hackett said that if input from a variety of government levels is needed, then it's good to have the GAC involved in order to keep a variety of sectors informed. Ross noted that the Arrowhead meeting revealed that the focus might best be on the local control points, but many of those are provided by private sector surveyors, who therefore need to be at the table.

Wakefield noted that just talking about updating the PLS boundary layer was worth a lot of discussion. How to bring in the local control points systematically, and that there are many technical questions to determine if it's an attainable goal, and how to get there. DOT and DNR are certainly highly involved players. The original goal was similar to the parcel business plan, to document questions and produce a road map. Having a focused group of folks to weigh in on such a plan could be very important.

Meyer noted that the Parcels and Land Records Committee has been working on the PLSS and how to go about updating that as part of their tentative work plan at this time. It seems like a natural extension of the parcel data, once the parcel standard is set. A large number of the stakeholders will be similar for the two groups.

Bloomquist asked about aligning with the other states, and Ross noted that neighboring states certainly want that, but that there are historic issues going along with that. Richason asked about a state surveyor position, and Ross said that MnGeo has an open, but unfilled, state surveyor position that might make sense to employ in the future.

Anderson noted that the parcel fabric will be affected by a PLSS update. Getting such an improvement into every local data set will be a challenge. Ross noted that this really became highlighted by the Next-Generation 911 project and noting that none of the boundaries match when compiling dispatch areas. Anderson noted that there is also a new datum coming in 2022.

Kotz noted that for this to move forward, it needs one or two people in an organization with a strong business need for it. The project did not come up when GAC members were polled for priorities. Perhaps as a result, the state agencies that have a strong business need might be the best way to develop a committee. Just having the GAC state that "a committee should be formed" doesn't work unless there are individuals who step forward saying that they will work on it. Ross said that it's important to have individuals from local government, and Kotz agreed, just saying

that it needs to be driven by some highly motivated individuals. Ross, Kotz, and Brandt noted that a number of surveyors might be interested.

Geurts asked if there were a Minnesota person on a national control point effort, and Ross replied that it would be Dave Zenk. Wakefield asked about Nancy Von Meyer from BLM, and Koutnik agreed that some kind of federal representation would be important. Geurts noted that the state agencies would have a large vested interest in it, and one reason it's not easily recognized as a priority is that it seems like a very large project. Now that it has a bit of a spotlight on it, she thought it would be useful to have a committee.

Kotz noted that he agrees that it is an important effort, but merely that he wants to see dedicated individuals identified to lead such an effort in order to ensure its success. Koutnik asked if a report of how the repeated use of these layers for derived products makes the impact of this issue ripple out – and that some kind of document highlighting that effect could help with driving the motivation. Ross agreed, noting that it would be part of the plan.

Break

Sector reports

Education

Freburg delivered the report for the Education sector, reviewing the provided slides. Over the past several decades, lots of changes have happened in the community. Almost every county and school district has a GIS person, but in the districts they are still just getting started. K-12 teachers are just now starting to use GIS in the classroom.

Freburg tends to ask two questions of educators: 1) do they know what GIS is? and 2) what's the best way to communicate with them? Many teachers have access to almost too much software, so it boils down to partnerships and collaboration. Freburg has spent significant amounts of time over the last few years adding workshops for teachers, utilizing grants, and soliciting volunteers.

New developments have come out of those efforts, such as the Minnesota Mapping Competition, which just finished its second year. This year Freburg had to put a cap on the submittals from each school in order to keep the number of submissions manageable. He asks the GAC to involve him in any communications regarding K-12 in the various sectors. Funding from the Consortium has also helped, enabling teachers to attend by paying for their substitutes, for example.

Freburg thanked his core committee identified on the slides, also noting contributions from Consortium members. He highlighted some feedback from students and teachers that reveal the opportunities that are being leveraged.

Freburg wants the GAC to know that any member can approach him with connections in school districts. He is already seeing an increase in contacts from districts, and is looking for feedback from the GAC on the effectiveness of communications.

Vaughn wanted to know how to reach out to high schools, and Freburg said that he typically reaches out to technology coordinators in districts, who then gather the teachers that are interested. Bloomquist noted that when parents have kids in school, telling the geography or social studies teacher up front about professional availability can be helpful.

Vaughn asked if canned materials are available, and Freburg replied that many materials were available.

Private Sector

Hackett noted that representing the private sector is more difficult, because they talk to their clients more frequently than to other consultants. In addition, it's difficult to identify contacts in large companies like Target or Best Buy. In his opinion, he is representing his clients as well as private businesses on the Council.

Private businesses often have internal needs for things such as data, such as adding value in order to resell it. Different clients have different needs, such as natural resources clients versus municipal clients. One of his clients is a city that is growing and changing more quickly than other cities that are more developed, so they are looking for updates to statewide data collections. Other sectors such as mining, infrastructure, etc are also of interest. RESPEC does a lot of modeling from various data sources, so the various committees are very interesting.

Regarding strategy, Hackett had an idea to create a Meetup group specifically for private sector spatial professionals in order to get a better idea of what they need. He can speculate on needs, but to be able to truly represent the sector is a challenge. He plans on advertising the Meetup on LinkedIn and other channels.

Kotz noted that he thinks stronger two-way communications with the private sector will definitely benefit the GAC. Hackett noted that he'll have to respect trade secrets and things like that, and Kotz understood that, but identifying shared needs could still be very useful. Hackett noted that he would likely communicate the purpose of the GAC at a first meeting, and the fact that readily available data makes projects less expensive.

Reinhardt noted that when MetroGIS started, there were many private sector participants, and the biggest issue was getting them the information they needed at a price they could afford. Once the issue of the cost of the data was removed, the technology became more valuable – but there are still needs to get the word out. She suggested connecting with chambers of commerce to find businesses that might not be readily recognized. She also suggested the Greater MSP group as a good avenue. Hackett replied that he always found it interesting that there aren't more private sector individuals at the GIS/LIS conference, and elevating these conversations might help.

Mackiewicz noted that one of the most valuable data sets in his industry is the MetroGIS parcel data, but that his clients don't always know what to do with the data. But once applications are developed on the data, they don't port well to other areas that don't have regional collaborations like MetroGIS, which shows how valuable that data is.

Update on standards – address points, parcels, etc.

Maas presented slides on the Standards Committee. The purpose of the Committee is identified in the charter, primarily as a transparent and inclusive process to develop and review standards. A key point is that the standards that are developed by the Committee should not be seen as mandates, but as resources. Kotz chimed in that the GAC approves standards in order to reflect the will of the community, but doesn't have the authority to actually mandate anything. However, individual organizations can use the developed materials to authorize and enforce standards within their communities.

Maas noted that stakeholder review is a key factor to developing standards. For example, with the parcel standard, the key emphasis is not to have individual data contributors change their internal process, but how they exchange data between one another.

Benefits of standards include efficiency, cost savings, communication, interoperability, and long term consistency.

Minnesota has a rich tradition of developing standards. MnGeo has [a web page linking to currently adopted standards](#). Maas revealed a slide of a timeline of standards developed over time. This is illustrated by the development of an address standard over the last decade, the state parcel data exchange standard currently under review, and road centerlines undergoing a state and metro effort, driven by projects such as Next-Generation 911. Several other standards developments are detailed on the slide.

Having a clear purpose and business need is important in developing a standard. When an organization or agency has such a need, finding other organizations with similar needs is the first step. Often leveraging existing work from national organizations, other governments, or vendors can be useful.

The Committee's process is still being refined. It starts with identifying a business need, if it is shared, and documenting that need. Then identifying other resources, drafting a standard, publishing it and reviewing it come next. Then approval is sought from the GAC, or revisions are integrated.

Maas noted that a single document describing a standard is best supported by various other documentation, such as spreadsheets with data domains and example data. There should be "no wrong door" for a stakeholder to be able to visualize a standard.

The [Parcel Data Transfer Standard](#) has undergone significant public review. Many attributes have been suggested to be added or renamed, some individuals have asked if it needs to include this many attributes, and currently it is now on hold to let the address standard be finished, since there are several elements in common.

Currently the address point standard is being fused with the Next-Generation 911 requirements. The metro standard has been modified to align with the Next-Generation 911 needs, which will be under public review and comment this summer and fall. A similar process is happening for road centerlines currently. Other lower level efforts are taking place on data such as stormwater. The next meeting of the Standards Committee will be on June 21st.

Reinhardt noted that while a lot has been accomplished, it's still pretty amazing to see how many standards are being worked on. Bontrager asked what various business needs have been considered for the stormwater standard, and Maas replied that there are a wide range of business uses for stormwater, so it's important to document those needs in order to develop the standard.

Kotz noted that there's a strong foundation of material developed for the stormwater standard, it just needs a leader to carry the effort forward.

Dolbow asked what the next step would be after address standards are feathered into the parcel standard, and Maas deferred to the parcel committee for that. Meyer said he could field any specific questions. Brandt said that in MetroGIS they have often seen value in knowing when to say "enough" and finalize the first version of the standard. Maas said a "strong beta" can be useful, and Dolbow argued that we've had such a "beta" for parcels for over a decade via the MetroGIS standard.

Emergency Management Damage Assessment Data Standard

Anderson and Richter presented slides on the need and interest for a data collection standard that would satisfy FEMA requirements. The workgroup has identified members and a purpose. Anderson noted that Richter has gathered a lot of documentation on various requirements from organizations such as FEMA and HSEM. Richter noted that the current focus is identifying the scope, particularly clarifying what is *not* in scope, such as identifying

an application to use, operating procedures, digital forms, and making data available. Instead, the scope of the workgroup is merely identifying the data that needs to be collected in assessing damage in the aftermath of an emergency.

Anderson said it is difficult to halt the thought process of working towards potential applications, but it is valuable to limit the scope of the workgroup. They have had four meetings and have submitted an abstract for a panel presentation at the GIS/LIS fall conference. They have identified Google Drive as a document sharing solution, and Anderson said that the effort has worked well despite members being located around the state.

Anderson and Richter noted various efforts to get members on the panel to represent a variety of sectors and business needs.

A slide comparing several spreadsheets of existing collection standards was shown, and Anderson briefly showed a spreadsheet assessing columns from the various standards and whether or not they meet certain needs. They are currently in the “draft standard” stage, identifying those columns, data domains, and other materials.

Update on MN GAC Priority Projects and Initiatives

Kotz asked for updates on the GAC priority list:

- Geurts noted that a city survey on open data is expected to go out this summer.
- Dolbow noted that HTTPS is available for MnGeo imagery and to contact him for details.
- Ross noted that a tile cache is also developed but not publicly available, and that the key obstacle is covering the costs. Several members indicated willingness to explore cost sharing options if additional imagery capabilities could be built.
- Meyer noted that his committee is committed to finishing the process for developing a parcel standard.
 - Ross asked if it would be OK if MnGeo developed an “open data aggregation” of parcels using the draft standard, and both Meyer and Kotz agreed that it would be useful.
 - Meyer noted that Otter Tail County is soon releasing its open data portal, and will release that to the Geospatial Commons.
 - Dolbow noted that a lot of work to aggregate parcel data from counties has been conducted at the state amongst MnGeo and DNR.
- Ross noted that opening address data is an ongoing effort, since current efforts to gather and utilize the data are driven by Next-Generation 911.
- On centerline data, Ross added that the Next-Generation 911 and MRCC standards are very close, and MnGeo is developing ways to integrate them.
- Ross noted that MnGeo is planning to utilize Open Street Map to develop a statewide basemap for internal applications, with the hope that it can then be shared more widely.
- Dolbow noted that there are no new developments on a publicly available geocoding service, and Ross added that before MnGeo makes something like that public, we need to plan for handling the increased use and covering the costs.
- On the Parks and Trails data standard, Ross relayed that MnGeo is:
 - building an application to track how funding on parks and trails is spent
 - building an application for the general public to find parks and trails and drive traffic to local websites

- examining data contributions for both efforts against a potential data standard for parks and trails
- Anderson asked about the connection to the legacy dollars, and Ross added that both applications will come out separately later this year. He added that many legacy fund projects don't specify a location, and funds are often spent over 5 years, leading to difficulties in developing a data model.
- Reinhardt asked how the coming Census is connected to our work. Ross replied that MnGeo is working with the US Census and the Minnesota State Demographic Center to coordinate efforts. The desire is to get local, regional, and state governments to work together in getting information more effectively to the US Census.

NSGIC with 2018 GIS/LIS Conference

Sjerven noted that NSGIC (National States Geographic Information Council) has two meetings per year, and next year they are considering conducting their fall meeting in Duluth at the same time as the Consortium fall conference, set for the first week of October in 2018. NSGIC officials are coming tomorrow to visit with the Consortium's group in Duluth. If that happens, the GAC should plan to get involved in the NSGIC meeting and facilitate learning between the communities. Ross noted that he is heading to Duluth this evening to meet the first visiting NSGIC officials, and they will review hotels in Duluth. NSGIC traditionally has focused their meeting in one hotel space, so this would be a different type of meeting. NSGIC was last in Minnesota in 2010, holding their annual meeting in Minneapolis.

Sjerven noted that the Consortium would have a lot to offer NSGIC with a co-located meeting, and that the opportunities for the MN community to learn from NSGIC would be valuable. Ross relayed that he has asked NSGIC to consider how they could become more important to state councils such as the GAC. Sjerven believes that the location of Duluth and the opportunity to meet with a large state group will sell itself. Kotz asked if he should draft a letter, and members agreed that he should. **A motion was made and seconded to compose a letter in support of the joint conference, and carried by voice vote.**

Announcements or other business

- Brandt noted that he and Ross are on the agenda of the Association of Emergency Managers to present about the GAC on September 19th.
- Sjerven relayed that a good amount of presentation abstracts have been submitted for the fall conference, and planning is moving forward in Bemidji.
- Freburg noted that there are two unfilled positions on the Consortium Board of Directors: a vacated at-large position and a recently resigned Chair Elect position. Nominations are open for the Chair Elect position through June 9th, and then a brief election will be held.
- Trager noted there will be a June 20th meeting of the Southeast GIS user group.
- Nagel noted a South Central GIS user group meeting will be held June 22nd.
- Richason relayed that a survey is being developed around the stability and continuity of GIS education in the state.
- Richter has been developing relationships with other GIS professionals who support emergency management operations.

- Ross will be speaking at the League of Minnesota Cities in two weeks about Next-Generation 911, boundary updates, address points, and open data. He'll be sharing his session with Danna Mackenzie from the Department of Commerce, who leads the state's broadband efforts.
- Vaughn relayed a current proposal to the LCCMR on hydro-modified DEMs, titled "Improving Watershed Management by Modernizing Hydrography Data". The latest proposal is coming from the data governance group in the DNR. He asked what the role is of the GAC, and Kotz noted that there is always an opportunity for the GAC to issue a letter of support in just about any effort. **A motion was made and seconded to compose a draft letter in support of the project, and carried by voice vote.**
- Sanocki noted that there are many changes taking place at USGS currently, and he will be relaying the information gathered at today's meeting to Ron Wencil.
- Maas noted that the MetroGIS Coordinating Committee is meeting soon to hear about Census efforts at the Metropolitan Council.
- Koutnik noted that Esri will be presenting to users in Madison on June 20th.

Meeting Adjourned