

# Minnesota Geospatial Advisory Council Meeting Minutes

December 6, 2017

Blazing Star Room, Ground Floor, Centennial Office Building

658 Cedar St., St. Paul, MN 55155

11:00 a.m. – 2:00 p.m.

**Members Present:** Brad Anderson, City of Moorhead; David Bendickson, Minnesota National Guard; Jeffrey Bloomquist, USDA Risk Management Agency; Andra Bontrager, Minnesota Center for Environmental Advocacy; David Brandt, Washington County; Preston Dowell, St. Louis County; Kari Geurts, MNIT @ Natural Resources; Madeleine Kerr, University of Minnesota School of Nursing; Mark Kotz, Metropolitan Council; Chris Mavis, Hennepin County; Philipp Nagel, City of Waseca; Ben Richason, St. Cloud State University; Cory Richter, City of Blaine; Dan Ross, MnGeo; Gerry Sjerven, Minnesota Power; Ryan Stovern, St. Louis County; Benjamin Timerson, Minnesota Department of Transportation; Brandon Tourtelotte, EagleView Technologies.

**Members Absent:** Scott Abel, Red Lake Band of Chippewa Indians; Scott Freburg, MNIT @ Dept. of Education; Len Kne, University of Minnesota; Victoria Reinhardt, Ramsey County; Danielle Walchuk, Region Nine Development Commission.

**Non-Members Present:** Jennifer Corcoran, Minnesota Department of Natural Resources; Will Craig, retired; Mike Dolbow, MnGeo; Brad Henry, Minnesota 2020; Katrin Jacobsen, USGS; Mike Koutnik, Esri; Geoff Maas, MetroGIS; Nancy Rader, MnGeo; Chris Sanocki, USGS; Megan Sisko, MnGeo; Alison Slaats, MnGeo; Sean Vaughn, DNR; Sally Wakefield, Minnesota Department of Revenue; Hal Watson, MNIT @ Natural Resources; Ron Wencil, USGS.

## References

This meeting included references to the following resources:

- [Slides](#)
- [Agenda Packet](#)

## Call to order and Introductions

Kotz called to order the meeting of the Geospatial Advisory Council (GAC). Members and guests introduced themselves.

## Housekeeping

**Kotz asked for approval of the agenda. Members motioned, seconded and approved.**

**Kotz asked for approval of the [meeting minutes from 9/19/2017](#). Members motioned, seconded and approved.**

## Review and accept committee summaries

Kotz requested a list of stories from the Outreach Committee, and Geurts replied that she will make such a list for the next meeting if available. Kotz requested a motion for acceptance of committee reports. **Members motioned, seconded and approved unanimously.**

## Request for approval of Minnesota Address Point Data Standard

Kotz turned the presentation over to Maas. Maas referred to the slides for general information on the [proposed Address Point Data Standard](#). A significant effort has taken place since 2004 on this standard. If approved, it should serve as a benchmark for other standards that utilize address information, such as parcels and centerlines. Maas presented a brief history of the standard's development and connections to the FGDC standard, the NENA (NG911) standard, and other efforts.

Maas provided an overview of the standard, such as the general contents of the 48 included attributes. He asked the Council for comments and approval. Kotz thanked Maas for his steering of the standard through the Committee and asked for comments.

Craig asked if the geographic location of the point is part of the standard, in terms of whether it is placed on a structure, a driveway, or otherwise. Maas answered that this configuration is denoted in an attribute, with an associated domain, that accommodates NENA's standard. There are 10 or so actual description options; so each record can denote where and how it is placed using that attribute. He expanded that MetroGIS hopes to have an online editor tool to help edit points and fill out attributes like this.

Ross noted that there are two groups that have been waiting for a long time for this standard to be completed. First, there is the Local Update of Census Addresses (LUCA) for the Census, and the second is the NG911. This standard should be useful for both efforts. The next steps will be going to the Geospatial Technical Committee within the state for review, and hopefully this will be the first thing on their agenda. Approval from there will send it to the Minnesota IT Services Commissioner to become an official state standard.

Kotz expanded on that to say that if the standard is approved by the GAC, it's approved by the Minnesota Community. State agencies are one set of stakeholders, but if approval comes from the state, it elevates the standard and gets it posted on state websites.

Brandt asked how this connected to NENA, and Kotz replied that first we made the standard compatible with the FGDC address data standard. Then we worked with Adam Iten, MnGeo's NG911 project manager, to make adjustments to ensure it met the needs for NG911. This included some changes to better comply with the NENA standard. There are ways to translate between the formats as necessary. Ross added that our federal partners will be adding data into national address datasets, and our standard will line up better with theirs.

Richter noted that she appreciated the documentation and all the information that came along with the standard. She brought all this information to her partners at her city, and all of those materials made it much easier for those conversations to be successful.

**Bendickson moved to approve the Minnesota Address Point Data Standard. Richter seconded and the motion passed unanimously.**

Kotz noted that there may be some changes to the "look and feel" of this standard in the future, but the content will not change without an approval by the GAC. The Council consented with that idea. Maas thanked the Council for the approval.

## Brief Announcements

Kotz noted that Ross is now the incoming president of NSGIC, and will take over as president of NSGIC at next fall's conference in Duluth.

Kotz also noted that there was a successful electronic vote of the Council since the last meeting on Council support for the Geospatial Data Act and resulting letters to federal representatives. . The following motion was made by Kotz and seconded by Gerry Sjerven on 11/9/17.

***The MN Geospatial Advisory Council supports the revised Geospatial Data Act being introduced by Senator Hatch. The GAC agrees to sign onto the attached letter of support to Senator Hatch. The GAC also directs Chair Kotz to send a letter of support for the GDA to Senator Klobuchar.***

This was followed by a few days of email discussion. Kotz called for an electronic vote on 11/13. By 11/14, 16 members had voted, all in favor. The motion was passed.

## Proposed changes to sectors

Kotz noted that there have been several ideas about changing sectors. The first proposal is to have 2 representatives for higher education in general, so that private sector colleges and universities can have representation. The second proposal is to change the "Metropolitan Council" sector to be "metro regional government", so the three other regional government agencies in the metro area could have representation.

Bendickson asked what members have been in the past from private universities, and Kotz answered they may have been at large members. Craig asked about regional governments around the state, and Kotz answered there already is a greater Minnesota regional government sector. He added that there are currently three other regional government organizations in the metro area: the Metropolitan Airports Commission, the Metropolitan Emergency Services Board, and the Metropolitan Mosquito Control District.

**Kotz asked for a motion to approve these two changes to sector representation. Brandt motioned, Dowell seconded.**

During discussion, Richason asked what would happen if two representatives in higher education did *not* include a representative from one of the two larger higher education systems. Kotz replied that the responsibilities of those sector reps would be to represent the entire higher education system.

**Kotz called for a vote and the motion was approved unanimously.**

## Committee collaboration

Brandt noted that the Outreach Committee would like to collaborate with other committees more as work plans develop, and as communications need to take place with the larger community. Sjerven agreed, saying that such collaboration is very useful. One of the questions that always comes up is, "do we need to develop standards?" So, he has also reached out to the Standards Committee, via Maas, to learn how to get started on standards. As a result, he supports collaboration between committees, although he's unsure how formal it should be.

Brandt agreed, saying not only do we need to decide how formal (or not) it should be, but also how requests between committees get prioritized. Kotz replied that's why we'll be working on priorities, and Ross added that such collaboration can also help "divide and conquer".

Kotz added that perhaps there should also be standard "collaboration sites". These can be challenging because of technology access limitations, but he thought it should be part of the discussion. Sjerven agreed that he would like a "one stop shop" for handling of all requests like that, but they've had problems with all solutions so far. Brandt suggested Basecamp, and Sjerven said that no matter the solution chosen, that "firewalls" would be a problem and it's very hard to find something that works for everyone. Kotz said perhaps each committee should just share what they've found related to online collaboration sites.

Geurts noted that the Outreach Committee will be meeting right after this meeting in the Nokomis Room for anyone who would like to join them.

Wakefield noted that with the Governor's Council, an Executive Committee met with chairs of each Committee. Since there is now instead a Steering Committee, is there a way for all the chairs to meet regularly? Ross said that if collaboration space needs were defined, we should discuss that. Brandt said he would continue working with Geurts and Kne to further define things.

## Geospatial Data Act update

Ross noted that there are now companion bills in the US House and Senate that were each introduced on GIS Day last month. Senator Klobuchar is a co-sponsor and NSGIC and AAG sponsored a reception to discuss it in Washington, DC. There are some small differences between the two bills, but they are essentially the same. They would formalize moving the FGDC under OMB, and bring state and federal partners closer together. Most of the language about procurement that was controversial in an earlier version has been taken out.

As a result, the sponsors have increased dramatically. The list shown on the slides continues to grow since the bill's introduction. Ross is pursuing more sponsors from within Minnesota. There are two groups that are still opposing the bill.

Koutnik asked if support from nonprofits would be useful, and Ross said it would. Kotz noted that he can provide addresses and the GAC letter if anyone wants to send more letters of support. Ross said we were one of the first states to write in support of this.

Bendickson asked why the two groups were still opposed to it, and Ross replied that they were concerned about the procurement and certification elements that were removed, but keeping those pieces in place would have brought down this whole bill. The hope is that their concerns can be addressed in a separate bill. The Coalition of Geospatial Organizations has decided that they won't support a bill unless all of the member organizations support it, and as a result they are not supporting it – but most of the members are.

Wakefield asked what the top two or three benefits would be. Ross said that it gives the state a better voice that we don't have today, formalizing it through the [National Geospatial Advisory Committee](#), and some of the data collection processes and flow could benefit by putting better standard processes on how federal agencies procure data.

Craig said it gives the FGDC some power to do some things, and Ross added that it formalized their power within the NSDI. Kotz added that this should give the FGDC more tools to be effective. He noted that our letter of support to Senator Klobuchar is currently with NSGIC to decide whether or not to include that in their compilations. As a result, Kotz decided to send additional letters of support to all the sponsors.

Ross noted that there is [a petition being circulated](#) by Women in GIS to support the act.

## NAIP imagery licensing

Bloomquist noted that MnGeo will have 2017 NAIP provided sometime between now and January from APFO for Minnesota. The next flight for Minnesota should be 2020 but will be operating under a different process that has not fully been defined.

For 2018, there will be no Minnesota flight, and FSA is moving toward a 3 year plan of refreshes. They are also looking at licensing the data, so that the data would no longer be free. The main driver is funding cuts over the past few years; with FY 2018 it appears there will be a 20% cut in NAIP compared to the previous year. The budget has never really kept pace for a fully funded program of aerial imagery collection. The funding issues are further compounded by other federal agencies having their own budget issues and ability to plan.

FSA, for its mission, really only needs to be flying cropland area, which is only about 60% of Minnesota. They are looking at a lot of options to make things work. The 2018 flights going forward would be a 60cm resolution on a 3 year refresh. FSA knows that a licensing model would be difficult, as each federal agency would also have to manage their own license for the data. So, all options are on the table. Nothing has been decided for 2019; Minnesota will not be flown in 2018 and would be up for NAIP again in 2020.

Ross said that we get the data from FSA APFO, and MnGeo loads it into the WMS imagery service, and the most recent FSA flight is typically the most popular layer when it comes out. His question right now is when and how will folks be able to provide input. Bloomquist said that it's likely coming, and we're best off working through existing groups. FSA knows that people are using the data, they just aren't sure what to do about the budget.

Kotz agreed that clearly this is a difficult budget situation for the FSA, and just noted that when something isn't free and open, it causes all kinds of ancillary problems. He wondered if there were some sort of licensing level that could be bought into enough to make the data free and open. Bloomquist noted that the APFO is looking at things like how they could raise money from states and locals like they did in the past. At the OMB level, they're also looking at how all the federal partners can contribute; they recognize that everyone uses the data and keeping it free and open is easier to administer. It's also generally more efficient to fly a whole state.

Nagel asked if the model was to license from a vendor, and Bloomquist agreed that was likely to be the approach.

Dowell noted that cropland-only flights would be a significant hit to northern Minnesota. They fly their own aerial imagery, but there are a lot of organizations that rely heavily on NAIP.

Richason added that something like this would be a major impact on the education sector. He asked if the older versions would still be accessible, or if this would impact former collections as well as future. Perhaps there could

be a tiered access fee. Kotz noted that the current data is already in the public domain, so that would not change. Instead, future collections would be owned by a private vendor and licensed from there.

## Sector Report – Metro Cities

Richter presented her slides to the Council. She has previously worked for the city of St. Paul, and now works for the city of Blaine. There are many metro communities that are less than 1,000 people, and most cities in the metro do not have a “GIS person” in house. They typically contract with a vendor or collaborate with a county as a result. There might be a city clerk who has many, varied duties.

It can be difficult to find a “GIS person” – they are not always in the “IT Office”. They might be elsewhere, or among various departments. Sometimes with larger organizations, several people are spread out. She has appreciated the partnerships with the private sector on sharing data back and forth between communities. Generally, when GIS personnel do exist, they frequently wear many hats.

Richter added that her title is “GIS Coordinator”, and she is under the Public Services section of the city. The actual organizational structure depends on funding scenarios. She is hearing more and more of similar stories when talking to other cities. Her job as a coordinator hasn’t changed much from being a technician, she just also has to do budgeting, IT work, and project management.

Two items that have come up a lot recently are crime analysis and emergency management. It has taken some time for her to break down barriers with the police department. What they lean on GIS people for are presenting reports, data, and maps in a high quality manner. There are always unexpected obstacles along the way. Just because the organization is a big city, doesn’t mean that technology has kept up with demand.

The GAC’s role points back to the guiding principles. If the Council is faithful to their guiding principles, that will always help metro cities.

Kotz called for a lunch break.

## 2018 projects and initiatives prioritization exercise

Kotz explained the process that we take on each year to review priorities. Kotz reviewed the process on the slides with the Council. The entire Council was surveyed to weigh in on these priorities, and there was a 100% response rate. We also assess the likelihood of success for each priority. We have preliminary priorities and preliminary scoring on likelihood of success in place for us to review as a Council.

Geurts asked how the Champion role gets determined, because it’s frequently important. Kotz replied that there are multiple ways to identify the person. Sometimes efforts can proceed without one, but it is often a key factor. A champion has to agree to play that role actively and not just be a “name on paper”.

Kotz noted that the need on Updated & Aligned Boundary Data is an opportunity, since it’s a high need from many areas but doesn’t have an owner, a work team, etc.

Kotz led the group through modifications of the data in the spreadsheet as necessary. He asked if members thought items should be higher on the priority list. Mavis noted that the Updated & Aligned Boundary Data item should be

moved up. Stovern offered that such work should be a natural extension of the Parcel Data effort. Mavis noted that one of the Minnesota Association of County Surveyors priorities that has been identified is restoration of PLS corners. They are actively trying to figure out what to do to tackle that problem. It helps to know that there are a lot of organizations that need it. Geurts noted that the Parcel business model is something that can be leveraged, and Watson agreed.

Geurts asked about a former initiative from MnGeo on boundaries. Ross said that he and Wakefield had started that when Wakefield was still working for MnGeo. The idea was that the community could work toward updating control points first, and then move the boundary data from there. This significantly affects the geospatial community. There may be a pilot in northeast Minnesota with the Forest Service and Bureau of Land Management. We know it will cost millions to improve control points. He offered that it should likely start with a white paper that can build a case to bring to the legislature.

Dowell agreed that if we talk about updating boundaries, it is a long term goal. It would be 35 years in his county alone to complete this, so we need something flexible if we're going develop a standard or process – it has to be a living, breathing, changeable methodology. If we set our expectations that we can get this done in a year, it's going to fail. The efforts will cost a lot of money, and would have a large cost to local governments.

Bontrager noted that this was the second priority of the nonprofit sector, but wanted to know about the prior work and if it could be shared to get the ball rolling. Mavis noted that there has already been some groundwork about information gathering and that can help. Stovern noted that if the Parcel Standard gets approved next year, the next goal of that Committee would be to look at the PLSS. Geurts said that perhaps that could lead to having a work group and a champion. Kotz said that it likely needs to go into the work plan, and we just need to define that. Is it just developing a white paper? He asked to hold that topic for now.

Bendickson noted that there may be a new champion on the Emergency Management Damage Assessment Data Standard. There is a new web emergency operations tool, "Web EOC" that is being used by many states and being rolled out in Minnesota at the Homeland Security and Emergency Management (HSEM) Division of the Department of Public Safety. They are having conversations with Esri about using ArcGIS Collector to interface with Web EOC. There are a lot of conversations going back and forth about licensing as a result. Whatever standard that gets developed, Bendickson is asking is that the standards be reused. Richter clarified that their team is essentially on hold at the moment because of Web EOC; the goal is to have Web EOC in place by the Super Bowl. That's why the team has taken a step back at this point to see what happens with these state and federal efforts.

Anderson said that the standard closely parallels the Esri standard. Koutnik noted that Esri has been in touch with the vendor for Web EOC to discuss the licensing and hopes they'll figure things out quickly.

Kotz proposed that Updated & Aligned Boundary Data be moved up in priority, between current priorities 7 and 8, contingent on involvement from the Parcels and Land Records Committee. Ross noted that all of the data efforts rely on the first priority of getting data free and open. Geurts noted that it's the Outreach Committee's top priority as well. Kotz asked about the bottom four priorities in the list and taking those off the work plan, and the Council agreed.

Dowell offered to be a project owner for Updated & Aligned Boundary Data.

Kotz asked for a motion to approve the priorities under their new ranking and to remove the lowest four priorities from the work plan, and the motion passed unanimously.

<b>GAC Rank</b>	<b>Project or Initiative Name</b>	<b>Status</b>	<b>Project Owner</b>	<b>Champ</b>
<b>1</b>	<b>All public geospatial data in MN is free and open to everyone</b>	Active	Len Kne	Ross
<b>2</b>	<b>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</b>	Active	Mike Dolbow	Ross
<b>3</b>	<b>State wide publicly available address points data (including a data standard)</b>	Active	Adam Iten	Ross
<b>4</b>	<b>State wide publicly available street centerline data (including a data standard)</b>	Active	Adam Iten	Ross
<b>5</b>	<b>Improvements to MnGeo imagery service capabilities, such as HTTPS, tiling, downloading options, and increased refresh frequency</b>	Active	Mike Dolbow	Ross
<b>6</b>	<b>A policy and procedures for archiving and preserving historical geospatial data</b>	Proposed	Ryan Mattke	many
<b>7</b>	<b>State wide publicly available parcel data (including a data standard)</b>	Active	George Meyer	
<b>8</b>	<b>Updated and aligned boundary data from authoritative data</b>	Proposed	Preston Dowell	
<b>9</b>	<b>Having aerial photography collections from dozens of years and geographic areas, with no retirement or removal of layers within a freely accessible imagery service</b>	Active	Mike Dolbow	Ross
<b>10</b>	<b>An emergency management damage assessment data standard for rapid, post-event damage assessment GPS field collection</b>	Active	Anderson/Richter	
<b>11</b>	<b>Support to move us forward toward updated LiDAR data and related standards.</b>	Active	Gerry Sjerven	
<b>12</b>	<b>MN-focused basemap services</b>	Active	Sonia Dickerson	Ross
<b>13</b>	<b>Parks and trails data standard</b>	Active	Jim Bunning	Ross

## DEM hydro-modification

Vaughn presented slides to the Council. This topic has come up several times at the GAC in the last year, along with DEM-derived hydrology, culverts, and the 3D Geomatics Committee. Today’s goal is to gauge support for a future LCCMR proposal on hDEM, which means modifying a DEM for hydrologic applications. There is an interconnected relationship between hDEM and culverts.

Vaughn shared his perspective that understanding where water is on the landscape is a fundamental process to managing our environment. His goal is leveraging technology to precisely map how water moves across the



landscape. LiDAR was the key technology to achieving the desired precision. Before LiDAR, 1:24,000 resolution and 30 meter DEMs simply didn't get the job done.

Agencies are spending large amounts of money to mitigate pollution and sediment in waterways, and LiDAR-derived DEMs can help identify the "nickpoints" where that sediment originates. However, within the DEM are "digital dams", which impede the ability to model how water moves across it. LiDAR did its job by accurately mapping things like roads that bridge over water courses, but that creates digital dams that need to be accounted for. This happens everywhere LiDAR is collected; an easy example to visualize is the lift bridge in Duluth.

Hydro-modification of a DEM removes the digital dams, so that water can be routed appropriately. Every single culvert in the state is producing such a digital dam, and as a result, unmodified DEMs result in improper routing of water in models. The methods used for correcting the digital dam can impact the results. Our mission is to create an authoritative model of how water moves across the landscape.

There is a lot of policy behind mapping features that are perennial, seasonal, or intermittent. Vaughn's desired approach is to model any feature that could convey water. Inside the policy frameworks, such as "one watershed, one plan", implementations and assessments all rely on foundational GIS data. As a result, the hDEM is truly foundational.

The [culvert inventory application](#) currently being developed can be a way to "crowd source" where culverts are to reach the hDEM goal. The result can be published to minimize duplication of data. The GAC is an important group for building additional awareness and collaboration on this type of need. The meeting packet includes additional information for Council members.

Nagel asked if this has been done for any local projects, and Vaughn replied that BWSR has been collecting information about that. Unfortunately, we don't have a completed standard on how to create a hDEM. So there's no standard approach in Minnesota or nationwide. Corcoran added that DNR has a pilot program to identify culverts and additional streams. Vaughn added that such projects are good for championing such needs.

Bontrager asked if this presentation affects the GAC's priorities, since one of the priorities shelved was around updating our hydro data. Vaughn replied that the common understanding is that hydrography data should come from elevation data. So hDEMs are important to keeping that data updated. There have been 60,000 edits to the DNR watercourse dataset, but it doesn't line up with LiDAR data. Wencil added that if we need better hydro data, we need newer and current LiDAR data. Vaughn countered that we have to get everyone on board to understand that hydro data is intertwined with elevation data. Bontrager said that the two should be tied together under one effort, and Vaughn agreed. What is seen on the landscape is what our data should represent.

## Approval of 3D Geomatics Committee work plan

Kotz presented that this new committee has given the Council a work plan to review, and that the Committee will work towards addressing some of the concerns that Vaughn raised. Sjerven said that he has previously covered a lot of things in the work plan, and wanted to highlight the recent discussions about champions. Within their committee, they'll identify individuals who have the passion to champion certain pieces of the effort. They still have questions they want to address, and they've highlighted their goals in the work plan. They have a structure to address several different sub topics and workgroups that they hope will work.

Kotz commented that the work plan is very ambitious and recommended a dose of realism in the approach. Sjerven understood, saying they will try to focus on one or two workgroups, and that one key effort will be about standards. The challenge will be to keep workgroups moving through their goals and communicating progress through their Steering Committee.

**Nagel motioned to approve the work plan and Stovern seconded. The motion passed unanimously.**

## Updates on MN GAC priority projects and initiatives

- Geurts noted the Outreach Committee is finalizing a city survey to go out in January. They are hoping to have as comprehensive a mailing list as possible to distribute that.
- Dolbow added that MnGeo upgraded the infrastructure supporting the WMS Imagery Service behind the scenes, and reiterated to members that the service is available over HTTPS if required.
- Stovern hopes that the Parcel Data standard will come up for GAC approval in March.
- Maas noted that a Street Centerline Standard is still moving through various groups for development.
- Ross noted that MnGeo has not yet completed its basemap service, and would like input from the GAC for more details on what is needed.
- Ross noted that there are two efforts concurrently going for Parks and Trails, metro and national, and hopefully those will coalesce in 2018. Maas added that metro county governments have based their standard on the [NRPA](#) standard. Brandt added that they are taking their first run at it, and there is a lot of work left on that front.

## Announcements or other business

- Henry noted that in January 2017, Minnesota asset management professionals created a local [Institute of Asset Management \(IAM\)](#) chapter. IAM is an international organization for professionals in the public, private and academic sectors. For more information or to be included on the Minnesota chapter email list, please contact Brad Henry, [bradf009@umn.edu](mailto:bradf009@umn.edu) or Craig Edlund, [craig.edlund@metc.state.mn.us](mailto:craig.edlund@metc.state.mn.us).
- Bendickson announced that the [text-to-911 implementation](#) has gone live. If anyone needs to text to 911, be prepared to precisely detail your location. The public information campaign is ongoing for that. Bontrager asked if pasting in a Google Maps link into texting would work. Bendickson said he wasn't sure about support for that. Brandt noted that it's all driven by address. Bendickson said that if you're inside a large building, you'll need to provide information about what floor you're on.
- Sjerven said that there is one week left to vote in MN GIS/LIS Consortium elections.
- Stovern noted that next year's GIS/LIS Consortium Conference will co-locate with NSGIC in Duluth, and Jared Hovi is the 2018 Conference Chair.
- Anderson recently got delivery of imagery and LiDAR for the city of Moorhead.
- Brandt noted that in September he, Ross, and Bendickson attended the Minnesota Emergency Manager's conference, and attendees expressed a desire for more hands-on demonstrations and connections so that emergency managers can see directly how GIS is used. He would like volunteers to help put together such a presentation.
- Ross noted that Freburg is at the IT Symposium and that last night the Department of Education won another award for bringing GIS to K12 classrooms: the Minnesota "Golden GOVIT Award" in the [collaboration category](#).

- Richason discussed support for the Geospatial Data Act with his Dean recently and the request will go through the Minnesota State University system.
- Kotz reported that the Metropolitan Council is undertaking a large GIS upgrade that hopefully will not affect services, but if it does, he wants to hear about it.
- Watson noted that the DNR is undertaking a large assessment of ArcGIS Pro.
- Vaughn expressed concern that a lot of funds have been spent on studies using non-modified DEMs with bad results, and wants to see real movement towards addressing a resolution.
- Koutnik said a number of updates for ArcGIS Online will occur soon.
- Corcoran noted that the DNR's Resource Assessment Unit recently received a new delivery of LiDAR and photography data. A number of contracts are wrapping up this fall around photography, and this is the last year they'll be printing and laminating stereo pairs of photos. In place of that, they want to provide on-screen surface models and other technologies. She would like to see fall color photography be added back to the GAC priority list in 2019.
- Sanocki noted that there's a lot of uncertainty around federal budgets, and nobody is quite sure how things will shake out. They're finishing up a nationwide project on water use and water tracking from source to use, in one database. Any new funds into that effort will also depend on federal budgets.
- Wencil noted that a national effort called 3DNation, led by USGS and NOAA, will be conducting a national survey and assessment. They will be looking for inputs from a wide range of users and interests starting early in 2018. He is not sure who will represent USGS in Minnesota after his retirement.
- Wakefield added that the UM GeoCon conference is coming in May. Sjerven added that it will be the 23<sup>rd</sup> and 24<sup>th</sup> of May. Wakefield added that Illinois is expected to join the conference. Sjerven noted that if any committee would like to present at that conference, to contact him.
- Craig added that recent reports on the strengths and vitality of Minnesota cities have relied on geocoding of address data as inputs, reminding the Council that such products are impacted by the GAC priorities. The rural economy has come back strong, which will come out in future reports.
- Maas noted that the Parcel Data Transfer Standard announcement will be coming in January, and a stormwater summit will be March 6<sup>th</sup>, partnering with Hennepin County.
- Dowell added that the annual meeting of the MN Society of Professional Surveyors will be February 14-16, with more information at <http://www.mnsurveyor.com/>.