

Minnesota Geospatial Advisory Council Meeting Minutes

May 29, 2019

Room 302W, 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; David Brandt, Washington County; Preston Dowell, St. Louis County; Scott Freburg, MNIT Department of Education; Kari Geurts, MNIT Department of Natural Resources; Madeleine Kerr, University of Minnesota School of Nursing; Len Kne, University of Minnesota; Mark Kotz, Metropolitan Council; Chris Mavis, Hennepin County; Andra Mathews, Minnesota Department of Transportation; 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, Pro-West and Associates; Victoria Reinhardt, Ramsey County; Philipp Nagel, Bolton & Menk; Jeffrey Bloomquist, USDA Risk Management Agency.

Members Absent: Scott Abel, Red Lake Band of Chippewa Indians.

Non-Members Present: Andrea Borich, Minnesota Pollution Control Agency; Curt Carlson, MnGeo; Will Craig, retired; Mike Dolbow, MnGeo; Earl Epstein, The Ohio State University; Mike Koutnik; Esri; Jim Langtry, USGS; Geoff Maas, MetroGIS; Ryan Mattke, University of Minnesota; Akiko Nakamura, Minnesota Department of Public Safety; Nancy Rader, MnGeo; Soren Rundquist, Environmental Working Group; Chris Sanocki, USGS; Sean Vaughn, MNIT Department of Natural Resources; Clayton Watercott, Metropolitan Council; Hal Watson, MNIT Department of Natural Resources.

References

This meeting included references to the following resources:

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

Call to order (Chair)

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

Motions: Kotz called for approval of the agenda and for approval of [meeting minutes from 3/6/2019](#). Both motions passed unanimously.

Review and accept committee summaries

Motion: Kotz called for acceptance of summaries from the following committees. Members approved unanimously.

- 3D Geomatics Committee
- Archiving Workgroup
- Emergency Preparedness Committee

- Image Service Sustainability Committee
- Outreach Committee
- Standards Committee

Road Centerline Data Standard approval

Kotz introduced the Road Centerline Data Standard, which was proposed by the state NG911 standards workgroup, and built from the MetroGIS standard specifications. Some key NG911 elements were added by the MnGeo NG911 team, and two rounds of public review were conducted. The Standards Committee approved this standard on May 2nd.

Motion: Kotz asked for approval of the standard contingent upon matching the column order with columns in the address point standard as appropriate. Brandt moved for approval as stated, and Mathews seconded. The motion passed unanimously.

GCGI standards - Positional Accuracy & US National Grid

Kotz noted that there are still standards formerly approved by the advisory body that preceded the Geospatial Advisory Council, the Governor's Council on Geographic Information (GCGI). The two under consideration at this meeting were the Positional Accuracy and National Grid standards. There are no changes other than formatting the standards to the GAC templates and formats.

Motion: Mavis moved that we approve both standards, and Stovern seconded. The motion passed unanimously.

GAC standards approval process

Kotz noted that while there has been an informal process to approve standards for years, it has never been formalized or approved by the GAC. The process has now been approved by the Standards Committee and is seeking GAC approval. Richter noted that such a process will be extremely helpful to future efforts.

Motion: Richter moved to approve the GAC standards approval process. Brandt seconded, and the motion passed unanimously.

Archiving Workgroup update

Mattke presented his slides on this topic, including the mission statement, deliverables and progress so far. Much of the effort so far has been around organizing membership and conducting a stakeholder survey. The survey justifies the concept of archiving data and establishes some priorities around what we archive. Two reports (linked from the slides) are being finalized.

Mattke then presented an overview of the results of the survey on the slides. The next steps are to complete a draft archiving agreement, create a strategy, a final report, and to present at the MN GIS/LIS Consortium Conference in the fall.

Mathews added that the archiving strategy draft would be enhanced by a pilot archiving project. They are interested in potentially land cover, land use, or hydrography. The group is seeking feedback on what type(s) of datasets might be most useful for archiving. Timerson noted that DOT has a lot of old PDF maps, and Mattke replied that they are interested mostly in piloting spatial formats (either vector or raster). Mathews noted that something

which will soon be retired and has a quality metadata record would be ripe for a pilot. Mattke noted that members or attendees can contact either him or Mathews for pilot ideas.

Awards group status

Kotz called for a discussion on the Awards group, which has no official committee status within the GAC. Richter noted that she and the group members discussed this issue since the last meeting. As a result, they will be putting together a Charter and Work Plan for a Committee that will meet as needed. Both documents will be short and ready for presenting to the GAC soon. One motivation of making the group more formal was the ability to recruit Committee members outside of the GAC membership. In the meantime, the current informal group will review the two current nominations before them. Mathews noted that the overall scope of the group is not really changing; this is just a formalization process.

Bendickson asked if there was a flow chart for submitting a nomination for an award. Richter responded that there is a step-by-step process on the [Awards web page](#). Stovern added that they have discussed a goal of keeping the Committee small, and Mathews added that diverse representation is also important.

GAC appointment process

Rader relayed the current progress of the appointments for the next term, starting July 1, 2019. Overall numbers of applications are good, but there are a few areas where we need to recruit further: K-12, regional government (greater Minnesota), counties (greater Minnesota), and tribal government. There will likely be a small amount of turnover, and quite a few current members continuing. We will continue accepting applications until positions are filled. Rader thanked the current Council members and everyone who has applied.

Announcements or other business

Kotz called for announcements amongst the attendees.

- Ross noted that MnGeo is posting a Deputy GIO and Director of MnGeo position. There will be a national search for 21 days, and spreading the word is appreciated.
- Bendickson noted that the MN National Guard in the Middle East will be coming back in July. He added that June is frequently the most active month for tornadoes and floods in Minnesota.
- Timerson noted that MN will host the national GIS for Transportation (GIST) conference next year. They are still narrowing down dates and locations. A tentative date is established for early June 2020.
- Sjerven noted that sessions review is being conducted for the MN GIS/LIS Consortium Conference this week. Notifications for acceptance will go out in June.
- Geurts noted that the State Agency GIS Collaborative group is continuing to meet regularly, evaluating training opportunities and gaps within agencies. They plan to do another large “training day” in 2020.
- Stovern noted that the MN GIS/LIS Consortium Conference in St. Cloud is only 4 months away, and encouraged booking hotel rooms now.
- Mavis added that there will be another “Meet Me at the Corner” session at the MN GIS/LIS Consortium Conference.
- Freburg noted that this is his last meeting since he is now retired. This year’s Minnesota Map Competition has ended, and he felt the overall quality of submissions were incredible. He encourages members to review the top submittals. There are almost 19,000 students using ArcGIS in some capacity in Minnesota,

which is by far the most of any state. He was able to keynote the GIS conference in Wyoming two weeks ago, where outreach to K-12 will be a focus going forward. He closed noting that the Wisconsin Land Information Association has started an “Educators in GIS” network.

- Reinhardt noted that the spatial efforts around the Census are extremely important, including zeroing in on traditionally underrepresented populations. Ramsey County has joined with the City of St. Paul to organize a “complete count” committee. GIS is a major part of the effort to make sure that everyone is counted.
- Brandt added that NG911 is also a very big topic that is being discussed both at the county and state levels. The importance of the GIS data is very clear. MetroGIS is creating a [prototype NG911 data viewer](#) for the wealth of data that is available.
- Mathews noted that this is her last meeting as a member and thanked her fellow members for helping her understand more about the coordination of GIS in the state. She will continue to serve on committees. She added that she hopes a new nonprofit sector representative will step forward.
- Rader reminded attendees that anyone from the community can participate in Committees and Workgroups, and that they do not need to be Council members.
- Tourtelotte noted that he is looking forward to going to the Esri User Conference and is curious if any official or unofficial Minnesota meetup might be taking place. Rader noted that she has a list of several state agency staff members who will be attending. Koutnik said that he can ask the MN Esri office as well.
- Vaughn noted that the 3D Geomatics Committee is building membership for a LiDAR acquisition workgroup. They are working on a plan and would like 10 members but only currently have 6. They are currently meeting weekly and could use more members.
- Watson said that the DNR is close to finishing their first custom mobile GIS application for iOS to help DNR staff manage public water access sites. They are also selecting a vendor for a next generation forestry application, which will be built and deployed approximately over five years. GIS is a major component of that application. He will be posting an ITS3 Web GIS application developer opening within the next month.
- Sanocki noted that the USGS is moving further into predictive modeling of waterways, getting into regional as well as nationwide scopes. More technical systems that monitor in real time are being used to feed the model. There is a lot of emphasis on water use and predictions based on past trends.
- Craig noted that NSGIC is updating its geospatial maturity assessment by surveying all the states, and there will be grades for every state. He feels that Minnesota will do well in that assessment. Also, the Minnesota legislature recently passed a law that was inspired by GIS: it allows individuals to actively discharge racial covenants in property deeds. It was inspired by a project called “[Mapping Prejudice](#)”.
- Carlson thanked the GAC and the Standards Committee for working on and approving the Road Centerline Standard.
- Mattke added that the Mapping Prejudice project has wrapped up in Hennepin County, and is now looking at Ramsey County. Reinhardt noted that a play called “Not in my neighborhood” is being presented locally and touches on this topic. Mattke noted that the TPT documentary “Jim Crow Up North” also discusses the topic and has gotten a lot of attention.
- Koutnik noted that Esri will be presenting an Insights workshop to state agency employees.
- Brandt added that the 8-county metropolitan collaborative is looking at options for acquiring oblique imagery, which is not currently covered by the state master imagery contract (which is in effect for one more year). Ross noted that he hopes to see a new committee come together to renew and/or update that contract a year early.

Metro Stormwater Data Project

Maas presented his slides on this topic, providing an overview and update on the project's purpose, status, and plans. This project has risen in priority within MetroGIS recently now that several other projects have completed and moved into maintenance efforts. In coming years, they will be piloting the standard against available data and pursuing tests of data translations. He encouraged attendees to contact him via e-mail if they were interested and asked for assistance in spreading the word and getting the materials into the hands of potential stakeholders.

Craig asked if other cities have been researched, and Maas responded that he is not aware of any other inter-jurisdictional efforts on stormwater data. He knows of other metro areas that are following the MetroGIS effort, but none that are pursuing such a standard. He attributes the strength of the effort to the established Watershed Management Districts and Organizations in Minnesota.

Stovern asked if any kind of alert system would be set up, and Maas said that they have discussed such a use case, but right now looking at those use cases is out of scope. Vaughn added that stormwater work began with watershed mapping, which is drastically altered by stormwater systems. He complimented the group for the work. Maas added that his understanding is that stormwater systems are considered the least understood among underground infrastructure.

Mathews asked about the roles of Watershed Management District/Organization representation vs. City representation in the Workgroup, and how the GAC could help. Maas replied that he merely hopes to bring updates back to the GAC, and that they have a decent representation of stakeholders on the workgroup. Mathews followed that there may still be a grey area within the communication puzzle.

Koutnik noted that it's interesting to look at this data from multiple angles, such as flow modeling vs. constituent modeling. He hopes that once the standard is established, we can see better interagency cooperation on stormwater management.

Sector reports

Richason reported on the Higher Education Sector, relaying information on his slides. He has been monitoring geospatial courses that are offered in Minnesota, across public and private universities. The slides listed the systems that were inventoried as well as years of surveys. His general findings so far are that course offerings remain relatively stable across higher education. There have been changes in the types of departments incorporating spatial coursework, and the course offerings have evolved over time.

He also discussed an NSF grant coming to the state on autonomous technologies under a broad umbrella of geospatial techniques. This grant comes from the National Center for Autonomous Technologies (NCAT). St. Cloud State has partnered with Northland Community College in Thief River Falls, where a drone-focused program is looking to expand to geospatial technologies. This work will examine both aerial and underwater UAV/UAS's, as well as Connected and Automated Vehicles (CAV's). Technicians working with these systems need to understand geospatial concepts, and this center will focus on the integrations of these disciplines. He envisions the development of minors, certificates, and other credentials for expertise in these systems. He closed that he very much appreciates working with the GAC over the last several years, and that he'll be volunteering his time on this work in the future.

Anderson reported on his sector of Greater Minnesota cities, relaying information on his slides. He said that so much of what the GAC discusses has high application among local governments throughout the state. He relayed

information about the [city contacts list](#), an open data survey of the cities, and the wide variety of approaches to GIS among cities. He also presented the results of input from his sector on GAC priorities. He relayed that it is difficult to stay in the loop with efforts that are largely driven by meetings in the metro when you live in greater Minnesota. He thanked the GAC for allowing him to serve since the original statewide advisory council was created 10 years ago.

Legislative updates

Ross relayed his slides on the Geospatial Data Act, which was enacted by Congress in October 2018. There are impacts not only for federal and national organizations such as the FGDC and NGAC, but for state and local governments that now have an elevated voice in national work. The FGDC is pursuing details on how to implement the GDA now that it's law.

Bendickson asked what Ross's assessment of success would be, and Ross replied that an example was how there are many different aerial imagery programs, and that there is not really a good process for how aerial imagery flows up to a national level. We can demonstrate at the state level how data like address points can be rolled up to national data sets.

Koutnik asked if the GDA will be taken more seriously by federal agencies than past coordination efforts, and Ross replied that it looks like it will be. All the federal agencies are at the table, and FGDC is helping them understand their responsibilities and identifying who should be stewards of data sets. The reporting requirements in the law will also make a big difference.

Updates on MN GAC priority projects and initiatives

GAC Rank	Project or Initiative Name	Status	Project Owner	Champ
1	All public geospatial data in MN to be free and open to everyone	Active	Len Kne	Ross
2	Assurance that the MnGeo imagery service will be maintained and improved via a sustainable funding model, including policies on what layers are added and removed over time. Evaluate improvements such as Web Mercator, tiling, downloading options, and increased refresh frequency.	Active	Mike Dolbow	Ross
3	Updated and aligned boundary data from authoritative sources	Active	Preston Dowell	Ross
4	Statewide publicly available parcel data	Active	Mike Dolbow	Kotz
5	A policy and procedures for archiving and preserving historical geospatial data	Active	Ryan Mattke	many
6	Statewide publicly available road centerline data (including a data standard)	Active	Norman Anderson	Ross
7	New LiDAR data acquisition across Minnesota for use in developing new derived products guided by committee developed standards	Active	Gerry Sjerven	Ross

8	Statewide publicly available address points data	Active	Norman Anderson	Ross
9	MN focused basemap services	Active	Sonia Dickerson	Ross
10	A parks and trails data standard	Active	Jim Bunning	Ross
11	An emergency management damage assessment data standard to provide an accepted specification to support a request for State or Federal assistance after a disaster	Active	Anderson/Richter	
12	Accurate hydro-DEMs (hDEM) that serve modern flood modeling and hydro-terrain analysis tools, and the development of more accurate watercourses and watersheds	Active	Sean Vaughn	

On Priority 1, Geurts noted that the Outreach Committee has been meeting and started a work plan, including looking at the two surveys and interpreting what cities and counties need to make their data free and open. They are also trying to coordinate with other GAC committees on outreach and communications, particularly around how surveys are conducted and branded.

On Priority 2, Dolbow reported that the new Image Service Sustainability Committee will be meeting tomorrow for the first time. He suggests Matt McGuire become the new owner for the priority.

Dowell reported no updates on Priority 3 at this time, but the pilot project in Grant County does appear to be going forward.

Dolbow reported progress on Priority 4 is slow but moving.

Mattke had already reported on Priority 5.

On Priority 6, Kotz relayed that the centerline standard just got approved. Ross relayed that as a result, MnGeo will start moving local data towards the standard in collaboration with counties and DOT. MnGeo's NG911 team is projecting this data will be available in the second quarter of 2020.

On Priority 7, Sjerven noted a lot of activity has occurred in the last 3 months, including establishing a goal of developing a statewide plan for Minnesota by October. A small group is working on that plan, but the 3D Geomatics Committee continues to grow and provide feedback.

On Priority 8, Ross noted that address data is also being moved into the state standard, also in collaboration with counties. The MnGeo NG911 team is projecting that the data will be available by the end of 2019.

On Priorities 9 and 10, Ross reported no significant movement or progress.

On Priority 11, Richter reported that their group met recently and is pursuing an informal review process in June.

On Priority 12, Vaughn reported that a group is active within the 3D Geomatics Committee, and they hope to see more support for hydro-modified DEMs as part of LiDAR acquisition. Over 1 year, they feel they finally have a good representation within a group that can work on this.

Kotz adjourned the meeting at 1:54 pm.