Minnesota Geospatial Advisory Council Meeting

September 4, 2019 Blazing Star Room, Ground Floor, Centennial Office Building 658 Cedar St., St. Paul, MN 55155 11:00 a.m. – 2:00 p.m.

Agenda

1.	Call to order (Chair)	11:00	20 min
	a. Welcome new members		
	b. Introductions		
	c. Approval of agenda		
	d. Approval of <u>meeting minutes</u> from 5/29/2019		
2.	Review and accept committee summaries (All) – page 2	11:20	5 min
3.	Description of GAC annual process and logistics (Kotz, Rader)	11:25	10 min
4.	Approve charter and work plan of Awards Committee (Richter) – page 10	11:35	5 min
5.	Archiving Workgroup Recommendations (Mattke) – page 12	11:40	20 min
6.	Break Networking	12:00	30 min
7.	Removal of Coordinate Exchange Standard from GAC web site (Kotz) – page 16	12:30	5 min
8.	Image Service Sustainability Committee recommendations (McGuire) – page 17	12:35	5 min
9.	Update and preview of MN state LiDAR plan (Sjerven, Slaats, Vaughn)	12:40	20 min
10.	Discussion of Request from MNIT Commissioner (Ross) – page 18	1:00	20 min
11.	Legislative update (Ross)	1:20	5 min
12.	Updates on MN GAC priority projects and initiatives – page 19	1:25	20 min
13.	Announcements or other business	1:45	15 min
14.	Adjourn	2:00	

Agenda Item 2. Review and Approval of Committee & Workgroup Summaries

3D Geomatics Committee

Archiving Workgroup

Report date:

Tuesday, August 20, 2019

Prepared by:

Ryan Mattke, Workgroup Chair, matt0089@umn.edu

Meetings:

The workgroup met on June 5, July 25, and August 19 (final meeting).

Meeting minutes are available here: https://www.mngeo.state.mn.us/workgroup/archiving/

Progress on work plan:

- Completed the 2018 Public Geospatial Data Archive Survey
- Completed the <u>Priority Datasets Report</u>
- Developed an <u>Archiving Agreement</u>
- Completed an <u>Archiving Strategy Report</u>
- Working with MnGeo on a pilot for archiving imagery data
- Held final meeting on August 19
- Summary Report of activities to be presented at the September 4 GAC meeting

Additional comments:

Emergency Preparedness Committee

Report date: October 21, 2019

Prepared by: Randy Knippel GIS Manager, Dakota County Randy.knippel@co.dakota.mn.us

Steve Swazee President, SharedGeo sdswazee@sharedgeo.org

Meetings:

May 20, 2019 – Damage Assessment Tiger Team meeting July 24, 2019 – USNG Implementation Working Group (IWG)

Progress on work plan:

USNG Tiger Team

Randy Knippel - lead

- USNG Implementation Working Group (IWG)
 - o https://sites.google.com/a/sharedgeo.org/usng-iwg/home
 - Continuing quarterly meetings
 - 24 participants (nation-wide)
 - Continuing with 3 committees
 - Administrative (Swazee leading)
 - Technical (Knippel participating)
 - Training (Knippel leading)
 - Primary focus is currently on reviewing and refining the USNG Wikipedia:
 - https://en.wikipedia.org/wiki/United_States_National_Grid
- Continued engagement in "SAR and GIS" Google group
 - Group has numerous references to the USNG
 - o 781 members
 - o <u>https://groups.google.com/forum/#!forum/sar-and-gis</u>
- Continue collaborating with NAPSG Foundation to update ArcGIS Pro Map Book template with tasks, and respond to comments and suggestions for enhancements:
 - https://napsg.maps.arcgis.com/home/item.html?id=f93ebd6933cb4679a62ce4f71a2a9615
- Other recent developments:
 - The number one priority regional project for MetroGIS is a "Regional 911 Data Viewer". <u>https://www.metrogis.org/projects/9-1-1-Data-Viewer.aspx</u>. This interactive mapping application will be used by emergency dispatchers and responders to view key regional data sets related to NG911. It will include the "Grid Overlay widget" which allows the U.S. National Grid to be displayed, helping to raise awareness of it.
 - Began project with MnGeo to create / update USNG maps for the entire State of Minnesota.

- GISsurfer available (free interactive mapping that supports USNG)
 - <u>https://mappingsupport.com/p2/gissurfer.php?center=15T_VK_6701_7675&zoom=10&bas</u>
 <u>emap=ESRI_National_Geographic</u>
 - Replaced former GMap4, which was retired due to onerous Google API licensing

Damage Assessment Tiger Team

Brad Anderson, Cory Richter - leads

• Releasing documents and sample data for informal review the week of August 20th. This is to a subset of the geospatial and emergency management stakeholders in order to refine materials before proceeding to the formal review process.

Other Activities

- Randy Knippel continues to be an active member of the Metropolitan Emergency Managers Association as their GIS Liaison
 - Attend monthly meetings
 - Provide updates related to metro and state GIS activities
 - MetroGIS Regional Data Viewer Project (MESB)
 - NG911 data development
 - Data standards
 - Geo Commons
- Dakota County continues to host USNG maps for the metro region
 - http://maps.co.dakota.mn.us/
 - Maps are being migrated to ArcGIS Pro, with an updated map layout.
- Steve Swazee through SharedGeo is actively pursuing opportunities to facilitate implementation in local government across the Nation
 - Creation of maps and map books
 - Implementation of Emergency Location Markers

Image Service Sustainability

Report date: 8/20/2019

Prepared by:

Matt McGuire Metropolitan Council <u>matt.mcguire@metc.state.mn.us</u> 651.602.1964

Meetings:

May 30^{th-} Minutes will be added to the committee page here <u>https://www.mngeo.state.mn.us/committee/image_service/</u> Meeting notes also available on request.

Progress on work plan:

The Committee is on track to accomplish the yearly workplan.

Layer Status change recommendations

Layer status change recommendations developed and shared with MNGeo. 12 layers were changed from "Active" to "Retirement Candidate". Retirement candidates are older, relatively limited in coverage and mostly color infrared layers, e.g. 2011 Murray County Color Infrared 1-foot resolution.

Layer status will be shared publicly here - <u>https://www.mngeo.state.mn.us/chouse/wms/wms_image_server_layers.html</u>

Composite Service change

Definition and identification of available layers to be added to Composite service. Layers are added appear only in 1:10,000 and larger scale requests and meet the following criteria:

- Already part of Minnesota Geospatial Image Service
- Acquired in the past four years (2016 2019)
- Better than 1-meter resolution
- Not superseded by better imagery from another source already in the service

MNGeo added two layers that meet these criteria to the composite image service, 2018 color Itasca and 2016 color Douglas County imagery.

Additional comments:

We plan to meet yearly in January. Solicitations for new imagery will go out in December. MNGeo will perform this outreach.

Outreach Committee

Report date: July, 2019

Prepared by:

Nick Meyers, GISP (<u>nmeyers@esri.com</u>) Kari Geurts, (<u>kari.geurts@state.mn.us</u>)

Meetings:

The Committee met on June 18, 2019. The meeting primarily discussed the work plan for the reminder of the year for sharing success stories with different organizations around the state. We also discussed the potential of working with the GIS/LIS consortium to share all the GAC committees content using something like Google Suite or ArcGIS Hub. The committee will present the idea of collaborating with GIS/LIS at a upcoming GAC meeting when we have a proposal.

Progress on work plan:

- Activities: The committee will be meeting on a regular basis.
 - Committee members will be working to compare and contrast the County and City survey results. This analysis will help to determine next steps for promoting free and open data and how to address the obstacles to achieve this goal.
 - Committee will be collecting success stories to promote the value of open data.
 - Committee members will be working with other GAC committee members to determine what outreach activities they want to pursue and how to coordinate across the committees to reach the appropriate GIS audiences.
 - Committee discussed the need for "branding" to be created to help make sure the look, feel, and message is consistent across all subcommittees.
- Accomplishments:
 - Identified 3 open data success stories
 - Discussed a joint effort with GIS/LIS consortium to share all GAC communication
 - Held meeting on June 18th
- Progress toward achieving proposed goals:
 - Identified writing local success stories with Open Data from Moorhead and Blaine as well as a national success story from ESRI and will share with organizations around the state.
- Problems or impediments: Approval by GAC committee to proceed with GIS/LIS consortium to find a way to share/distribute all communication.
- Required assistance: None

Additional comments:

None

Parcels and Land Records Committee

Report date:

8/23/19

Prepared by:

Preston Dowell, 218-742-9824, dowellp@stlouiscountymn.gov

Meetings:

None

Progress on work plan:

We will be presenting at the GIS/LIS conference and the MSPS conference to let members know about the refocusing of the PLRC. We also plan to convene a meeting at the MN GIS/LIS conference in order to elect a new chair.

Additional comments:

We have preliminary versions of the boundary alignment project summary and project plan. After the MN GIS/LIS we will work to revise the plan for GAC approval.

Standards Committee

Report date:

August 21, 2019

Prepared by:

Mark Kotz, Chair | <u>mark.kotz@metc.state.mn.us</u> Andra Mathews, Vice Chair | <u>andra.mathews@state.mn.us</u>

Meetings in 2019:

January 17, 2019 – full committee meeting March 21, 2019 – road data standard public comment review subgroup meeting March 28, 2019 – road data standard public comment review subgroup meeting April 11, 2019 – full committee conference call meeting (due to snow storm) May 2, 2019 – full committee 30 minute conference call meeting August 21, 2019 – standards logistics ad-hoc sub group A meeting will be scheduled for September.

Meeting minutes available here

Progress on work plan:

- Complete the Road Centerline Data Standard and have it approved by the GAC
 - o Completed public review period with excellent comments and suggestions
 - \circ $\;$ Subgroup met twice to respond to comments and propose changes to standard
 - \circ $\;$ Committee discussed proposed changes and made final draft of standard $\;$
 - Approved by GAC at May meeting
- Complete a revision to the Parcel Data Standard
 - Based on experience of metro counties adopting the standard, some minor revisions were proposed to the standard
 - Revisions approved by GAC at March meeting
 - Modify several original GCGI standards to the GAC format and have adopted by the GAC
 - \circ $\,$ CTU ID, County ID and State ID standards were approved by GAC in March
 - US National Grid and Positional Accuracy Measuring and Reporting standards were approved by GAC in May
- Engage stakeholder groups to review and modify other original GCGI standards
 - Members of the sunsetted GAC metadata workgroup and the MN Geospatial Commons team are reviewing the MN Geospatial Metadata Guidelines. The metadata standard will likely require a formal public review.
 - A SME group of hydro practitioners at DNR is leading a review of three GCGI hydro related standards.
- Additional NG9-1-1 proposed standards
 - It is expected that the Emergency Service Provider Polygon Boundary standard will be submitted to the GAC Standards Committee by the end of August.
- Complete a procedures document for the GAC standards process
 - The Committee approved a document which was approved by the GAC in May.
- Promotional efforts for GAC standards
 - The Standards Committee will be presenting at the 2019 GIS/LIS Conference.
 - Facilitate the creation of usage guides for key GAC standards
 - This is a work in progress in conjunction with MetroGIS and the NG 9-1-1 standards group.
- New Item: evaluating ways to streamline the maintenance of standards and related materials.

Governor's Award Committee Charter

Mission statement:

To promote awareness of the Governor's Geospatial Commendation Award, review nominations, and submit recommendations to MnGeo.

Objectives and Deliverables:

- 1) Maintain and revise the Geospatial Commendation nomination information and award criteria
- 2) Convene to review nominations for the Governor's Geospatial Commendation as needed
- 3) Recommend nominations to MnGeo for Geospatial Commendation
- 4) Promote awareness of the award across the Minnesota geospatial community

Resource requirements and timing:

Meetings will be held as requested by the Geospatial Advisory Council to review awards criteria and nominations for the Governor's Geospatial Commendation.

Anticipated participants and their roles and responsibilities:

This committee will consist of representatives from a range of Minnesota Geospatial perspectives.

Name	Organization	Status
David Brandt	Washington County	Confirmed member
Len Kne	U-Spatial	Confirmed member
Andra Matthews	MnDOT	Confirmed member
Phil Nagel	Bolton-Menk	Confirmed member
Cory Richter	City of Blaine	Chair
Ryan Stovern	St. Louis County	Confirmed member

Prepared by:

Cory Richter – crichter@blainemn.gov

Governor's Award Committee

Work Plan date: 2019

Chair:

Chair: Cory Richter (crichter@blainemn.gov)

Committee/workgroup Charter

Work Plan for 2019

Planned activities and deliverables:

- Convert the ad-hoc workgroup to a formal committee (goal: September 2019)
- On request, review nominations for commendation
- Promote the Governor's Geospatial Commendation Award at the GIS/LIS Fall conference

Roles and responsibilities:

Name	Role
David Brandt	Represent metro counties in discussions
Len Kne	Represent educational institutions in discussions
Andra Matthews	Represent State agencies in discussions
Phil Nagel	Represent private industry in discussions
Cory Richter	Schedule and conduct meetings. Ensure notes are taken. Update team site
	with notes, recommendations and any changes to plan document.
Ryan Stovern	Represent greater Minnesota counties in discussions

Resources:

• MNGeo resource pages for past recipients of the Governor's Commendation Award and nomination criteria

Committee/workgroup needs:

Teleconference capabilities Representative from non-profit sector

Dependencies and interrelationships:

Communicating with MnGeo staff to receive current year nominations and to submit committee recommendations by the designated date in order to award the commendation at the annual GIS/LIS Fall conference. The committee will also work with the Outreach Committee to promote awareness of the award to encourage future nominations and to celebrate past recipients.

Risks:

Members of the committee may have to recuse themselves from discussion if they had any role in developing a nomination.

Additional Comments:

Agenda Item 5. Archiving Workgroup Recommendations

Minnesota Geospatial Advisory Council - Archiving Workgroup Summary Report

Introduction

The Minnesota Geospatial Advisory Council (GAC) partners with a cross-section of organizations that include city, county, regional, state, federal and tribal governments as well as education, business and nonprofit sectors, and other stakeholder groups that benefit from geospatial technology to further the coordination among the Minnesota geospatial community.

Data archiving of geospatial information encompasses a wide range of considerations and practices for preserving public geospatial records and historical materials. In 2018, the GAC authorized the creation of an **Archiving Workgroup** http://www.mngeo.state.mn.us/workgroup/archiving/ with the purpose of defining the guidelines, best practices, and procedures for archiving geospatial data in Minnesota, so that a wealth of valuable geospatial data can be preserved and available for future use. The Archiving Workgroup aimed to engage with data stewards and stakeholders at various levels of government, academic institutions, private sector interests, non-profit organizations and citizens of the state, and to collaborate with MnGeo to propose datasets and methods for geospatial data archiving

Statement of Purpose

The Archive will be a repository for geospatial data with permanent historical/archival value.

Accomplishments

The Archiving Workgroup focused on describing the need for geospatial data archiving and laying the groundwork to signal potential pathways forward. Members collected initial findings about the level of interest in archiving, identified datasets to target, outlined the available technology, and clarified data archiving concepts. Where feasible, the Workgroup developed approximations and estimates of data sizes, data sources, staffing models, and costs. Finally, several aspects of the archive's policies, guidelines, and procedures were defined.

Stated Task	Result	
Engage with data stewards at various levels of government, academic institutions, private sector, and relevant stakeholders	Public Geospatial Data Archive Survey	
Create a priorities list of datasets to focus on for archiving purposes	Priority Datasets Report	
Create an archiving strategy that includes policies, best practices, and procedures	Archiving Strategy Report	
Explore ways to streamline or eliminate license agreements	Archiving Agreement	
Explore what an archiving agreement would look like		
Collaborate with MnGeo on a strategy for how they will archive their historical aerial imagery layers (archiving pilot)	 Compressed MySQL imagery not a good candidate for archiving as it requires a custom viewer to visualize the data Uncompressed imagery (geotiff) should be archived Metadata should include a bounding box to give some sense of coverage Further investigation needed, including the possibility of converting uncompressed imagery to a more consumable format and the potential for creating indexes to allow users to determine which imagery files they need 	
Educate the geospatial community about archiving	Communications sent or planned via MnGeo Newsletter and MN GIS/LIS Newsletter Archiving Update Cost of archiving Call for testimonials	
Present at 2019 MN GIS/LIS Conference	 Workgroup members presenting: Poster (data survey) Panel (GAC activities) Lighting Talk (Archiving) 	

Key Findings

Support for data archiving is strong across the Minnesota geospatial community. Of the 87 persons polled by our <u>Public Geospatial Data Archive Survey</u>, 90% agreed that government agencies should make their historical geospatial data available. This survey also identified three data layer themes, **Aerial photography and imagery**, **LiDAR**, and **Land use & Landcover** as the top candidates for archiving among Minnesota stakeholders.

The <u>Priority Datasets Subgroup</u> weighed the survey results with other factors, particularly layer and metadata availability, and recommended prioritizing **Aerial Photography and Imagery, Parcels**, **Address points**, and **Road centerlines.** LiDAR and Land use & Landcover data will also be priorities but will require further research to determine the availability and storage space needed for archiving these layers.

The <u>Archiving Strategy Subgroup</u> conducted research into existing geospatial data archiving projects and developed preliminary suggestions for technology, curation, and funding plans. Key recommendations include:

- Build a sustainable spatial data infrastructure that includes stored archival files and access copies
- Place the data repository portion of the archive under the stewardship of an existing infrastructure initially
- Integrate the archive's metadata records into the Minnesota Geospatial Commons for discoverability
- Hire a curator to coordinate ingest and preservation activities
- Designate agencies as being responsible for submitting data to the archive

The <u>Archiving Agreement Subgroup</u> explored license and archiving agreements in order to develop preliminary recommendations for deposit policies and license language. Key recommendations include:

- The archive will only accept geospatial data that includes all or a portion of Minnesota
- Data will be non-restricted and will be deposited for open access use
- Data should be in a final publishable state.
- Data for deposit should be accompanied by metadata records that adhere to the Minnesota Geographic Metadata Standard
- Data producers will need to agree to standard language for the Access Constraints, Use Constraints, and Distribution Liability fields in the metadata
- Content submission to the archive should be considered permanent

Future Considerations

The accomplishments of the Workgroup created a foundation upon which a more specific systems design for the archive can be developed. In particular, the estimates of the staffing needs and storage sizes and the generalizations about planning for format obsolescence and long term preservation support policies will demand further analysis. Additional considerations include the risk that some agencies will not wish to participate. Future investigations should also include clarifications of the assumptions made in the initial reports and a potential revision of cost estimates.

Next Steps

Create an **Archiving Implementation Workgroup** to define and facilitate the implementation of an archive for Minnesota geospatial data. Discussions within the Archiving Workgroup indicated the effort would need to work in these areas:

- **Program**: Develop a detailed program for archiving geospatial data, including governance, guidelines, procedures, and the necessary social infrastructure
- **Technology**: Develop detailed technical infrastructure plans and workflows for archiving geospatial data
- Outreach & Education: Continue to build support for the archiving effort
- Funding: Research and secure funding for the archiving effort

Future Plans

Establish an **Archiving Committee** to coordinate strategies for archiving geospatial data. It would advise the state geospatial community about relevant archiving issues and make recommendations about policies and procedures related to archiving geospatial data in Minnesota. The establishment of this committee would occur once there is a firm timeline for implementation of an archive.

List of Workgroup Members

Ryan Mattke - University of Minnesota Libraries (Chair) Karen Majewicz - University of Minnesota Libraries (Vice Chair) David Bendickson - Minnesota National Guard Art Botello - Minnesota Department of Transportation Melinda Kernik - University of Minnesota Libraries Len Kne - University of Minnesota Mark Kotz - Metropolitan Council Mike Koutnik - Esri Andra Mathews - Minnesota Department of Transportation Colleen Paavola - City of St. Paul Dan Ross - MnGeo Ben Timerson - Minnesota Department of Transportation Denise Tingstad - City of Maple Grove Brandon Tourtelotte - Pro-West & Associates Hal Watson - MN.IT Natural Resources

Agenda Item 7. Removal of Coordinate Exchange Standard from GAC web site

Coordinate Specifications for Spatial Data Exchange Between Minnesota State Agencies

Standards Committee requests removal of standard from GAC web site

- Approved by the Governor's Council on Geographic Information in 1998
- Has never been adopted by the GAC
- Was developed prior to common use of projection files projection/transformation technology
- Applies only to state agencies
- State agencies could still use it as a standard for their sector

Agenda Item 8. Image Service Sustainability Committee Recommendations

The Image Service Sustainability Committee makes layer status change recommendations to MNGeo and the GAC based on several criteria as defined in the Committee's charter and the Image Service Sustainability Plan.

The Committee recommends changing the status of the following image layers from "Active" to "Retirement Candidate" based on very low usage:

Layer Name	Geographic Area	Season	Туре	Resolution
2013 Scott	Scott Co.	spring	Color Infrared	0.15 meter (6-inch)
2013 Dakota	Dakota Co.	spring	Color Infrared	0.15 meter (6-inch)
2013 Carver	Carver Co.	spring	Color Infrared	0.15 meter (6-inch)
2011 Rice	Rice Co.	spring	Color Infrared	1-foot
2010 Scott	Scott Co.	spring	Color Infrared	0.15 meter (6-inch)
2010 Dakota	Dakota Co.	spring	Color Infrared	0.15 meter (6-inch)
2008 Twin Cities	Twin Cities	spring	Natural Color	0.3-meter
2014 McLeod	McLeod Co.	spring	Color Infrared	0.15-meter (6-inch)
2013 Meeker	Meeker Co.	spring	Color Infrared	0.5-meter
2011 Murray	Murray Co.	spring	Color Infrared	1-foot
2009 south shore (WI)	Wisconsin lakeshore	summer	Color Infrared	0.3-meter
2009 nw border	Northern border	summer	Natural Color	0.3-meter

Agenda Item 10. Discussion of Request from MNIT Commissioner

Some background from Dan Ross:

As MNIT Commissioner Tarek Tomes was identifying members of the GAC, he asked if the GAC had a committee about data sharing.

It was shared with him that the GAC has some individual initiatives and priorities it has identified (GAC priority list of projects) related to bringing together foundational data sets, and the geospatial community has come together to support the MN Geospatial Commons platform.

He identified those efforts to share data as good but suggested he would like to see the GAC have a committee or workgroup that works to identify data that is needed to support the good work of the many organizations in the state. He suggested some outcomes would be to understand what data is needed by the community, what state the data is in, and what needs to be done to make it sharable and available. Specifically, he was looking for a potential committee to look into data that aligns with our Governors goals for Minnesota and the data that when shared can influence and improve outcomes. A few of the Governor's goals are identified below...

- All Children have a good education
- Make health care more affordable
- Improve the state's infrastructure
- Increasing access to affordable and quality housing
- Understanding and reducing racial and geographic disparities in educational and economic opportunities
- Affordable childcare
- Clean Energy by 2050
- Diversity and inclusion

The Commissioner identified if we can bring him some ideas, he is willing to help move this forward with whomever we need to promote and engage folks in more data sharing to improve outcomes in Minnesota.

I look forward to having this discussion with the GAC.

Agenda Item 12. GAC Priority Projects and Initiatives

GAC				
Rank	Project or Initiative Name	Status	Project Owner	Champ
	All public geospatial data in MN to be free and open to			
1	everyone	Active	Len Kne	Ross
	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,			
2	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
	Statewide publicly available road centerline data (including a		Norman	
6	data standard)	Active	Anderson	Ross
	New LiDAR data acquisition across Minnesota for use in			
-	developing new derived products guided by committee			_
7	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
	An emergency management damage assessment data standard		<u>y</u>	
	to provide an accepted specification to support a request for			
11	State or Federal assistance after a disaster	Active	Anderson/Richter	
	Accurate hydro-DEMs (hDEM) that serve modern flood			
	modeling and hydro-terrain analysis tools, and the			
12	development of more accurate watercourses and watersheds	Active	Sean Vaughn	