

Minnesota Geospatial Advisory Council Meeting

March 6, 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	15 min
a. Introductions		
b. Approval of agenda		
c. Approval of meeting minutes from 12/5/2018		
2. Committee and workgroup annual reports – review and approval (All) – <i>page 2</i>	11:15	5 min
3. GAC overall accomplishments and work plan review and approval (Kotz) – <i>page 22</i>	11:20	10 min
4. Image Service Sustainability Committee approval (Dolbow) – <i>page 25</i>	11:30	10 min
5. Parcel Data Standard revision approval (Kotz) - <i>handout</i>	11:40	10 min
6. GCGI standards for state, county and CTU codes revisions (Kotz) – <i>page 29 & handouts</i>	11:50	10 min
7. Break Networking	12:00	30 min
8. Governor’s Geospatial Commendation Award language changes (Richter) – <i>page 30</i>	12:30	10 min
9. Parcel and Land Records/boundary alignment update (Dowell)	12:40	10 min
10. Hazard mitigation and climate adaptation initiatives (Stark, Hoppe)	12:50	20 min
11. 3D Geomatics Committee workgroup updates (Bergman, Moore, Schulz) – <i>page 31</i>	1:10	20 min
12. Legislative updates	1:30	5 min
13. Updates on GAC priority projects and initiatives – <i>page 33</i>	1:35	10 min
14. Collaboration sites for committees and workgroups – (Slaats)	1:45	5 min
15. Announcements or other business	1:50	10 min
16. Adjourn	2:00	

Agenda Item 2. Review and Approval of Committee/Workgroup Annual Reports

3D Geomatics Committee

Work Plan Date:

February 8, 2019

Chairs:

Sean Vaughn, Co-Chair

Minnesota IT Services@DNR

763-689-7100 x226

sean.vaughn@state.mn.us

Gerry Sjerven, Co-Chair

Minnesota Power

218-355-3990

gsjerven@mnpower.com

Link to Committee Charter:

[The 3DGeomatics Charter \(http://www.mngeo.state.mn.us/committee/3dgeo/3dgeo_committee_charter.pdf\)](http://www.mngeo.state.mn.us/committee/3dgeo/3dgeo_committee_charter.pdf)

Accomplishments from 2018

Executive Steering Team Accomplishments

1. Continued to meet monthly
2. Presented at the MN GIS/LIS Consortium Conference, *'3D Geomatics Committee Update and Topic Discussion for the GIS/LIS Community – Focusing on A Guided Approach to Minnesota's Next LiDAR Collect.'*
Attended mostly by Committee members
3. Biographies, agendas and minutes have been posted to the website
4. Developed a draft a SharePoint site for committee collaboration
5. Coordinated the draft update of the 3DEP fact sheet
6. Added Jack Kluempke, MN Department of Commerce to the Steering Committee.
7. Worked to establish 2-ranked GAC priorities
 - 1.) Priority #7 | New LiDAR data acquisition across Minnesota for use in developing new derived products guided by committee developed standards
 - 2.) Priority #12 | Accurate hydro-DEMs (hDEM) that serve modern flood modeling and hydro-terrain analysis tools, and the development of more accurate watercourses and watersheds
8. Hosted a committee workshop in June
 - Brought membership face-to-face for the first time
 - Workgroups identified LiDAR-derived product needs
9. Guided the early discussions and foundation for the Acquisition Workgroup

Workgroup Accomplishments

10. Infrastructure Workgroup (Colin Lee)

- Established a group of participants with varying backgrounds. All of which have an interest in 3D Datasets, current and future
- Scheduled consistent meetings (## in total) to discuss recent events, industry specific developments in technology and efforts made by others
- Standardized agendas and minutes to track work group progress.
- Created and organized a temporary shared workspace (MnDOT Managed File Transfer) for group members to collaborate
- Drafted a tentative work plan outlining the major goals we will work to accomplish in this effort
- Working with Department of Commerce to identify recently acquired MnDOT LiDAR data with Minnesota's existing LiDAR data collect to determine if new data would assist in solar suitability.
- Began Work on an efficiency study to compare new, high resolution, large area collected LiDAR data in place of their current business model of collecting single corridor (project based) high resolution LiDAR data.

11. Vegetation Workgroup

- Still recruiting membership
- Working on pilot SPL data for forest inventory
- UMN/DNR looking to disseminate findings soon
- Continue to promote 3DEP compliance for any new collects

12. Hydrography Workgroup

- Continues to host monthly meetings
- Established Digital Dam Breachline Subgroup
 - 5 meetings have been held
- Established Hydrography Data Catalog Subgroup
 - 2 meetings have been held

Work Plan for 2019

Planned Activities and Deliverables:

- Continue committee outreach and education to engage and inform GIS, remote sensing, and 3D geospatial communities to determine needs for specific data standards, products, and workgroup focus.
 - This will be accomplished by:
 - Expanding content on MnGeo website for the distribution of 3D Geomatics Committee educational materials and serve as a clearinghouse of 3D technology information
 - Engaging users through email survey
 - Sending Communications through MN GIS/LIS Consortium E-announcements
 - Reviewing previous surveys to identify potential needs and areas of focus
 - Collaborating and partnering with the Geospatial Advisory Council's (GAC) - Outreach Committee to use the Minnesota Geospatial Advisory Council meeting summary (GAC Yak publication) for Conducting surveys of other sectors of the state using
- Continue to support 3DGeo Committee Workgroups
- Establish Infrastructure, Vegetation, and Education Workgroups.
 - Continue solicitation of membership
 - Assist with the development of Workgroup work plans.
 - Identify workgroup champions to lead formation of workgroups.
 - Each Workgroup will have a chair or co-chairs.
 - Each workgroup will have at least one member serving on the 3DGeo Executive Steering Team
 - Each Workgroup will strive to represent a wide range of expertise with active participation, minimum 6 meetings a year
 - Chair or Co-Chair will be available for 3D Geomatics Committee panel at the annual MN GIS/LIS Consortium Conference
 - Steer development of Workgroup mission statements, goals, work plans, and timelines
- Establish timelines for Workgroups.
 - Workgroups will develop drafts of work plans for 2019 for the March 2019 GAC meeting
- Committee Annual Workshop
 - Explore the potential for a Workshop meeting
 - Host a workshop in the summer of 2019
- Work with GAC Chair to have 3DGeo Workgroup chairs/co-chairs or Champions present updates to GAC in person.
- Define methods to acknowledge informed workgroup membership to increase stakeholder awareness and recognition with the committee.
 - This is especially important for building out the Acquisition and Sensing Workgroup with managers and stakeholders.
 - Establish Informed Membership list on webpages
 - Add titles to membership web pages for accountable and Informed membership
- Support the development of a Minnesota Statewide Acquisition Plan

Committee Structure

Workgroups (sectors of expertise):

- 3D-Terrain Derived Hydro Landforms & Hydrography
- 3D-derived Vegetation
- 3D Data Education & Outreach
- 3D-derived Human Infrastructure
- 3D-derived Emergency Management Products
- 3D Data Acquisition & Sensing
- Systems & Software Technology
- Agency & Stakeholder Managers

Committee Organizational Diagram

3D Geomatics Committee Organization



Roles and Responsibilities:

- Committee guidance and management is provided by the 3DGeo Executive Steering Team.
- Workgroup representation on the Steering Team is accomplished by having at least one champion and/or chair/co-chair(s) added to the Steering Team. Some listed will be on a workgroup.
- Membership will continue to expand for each workgroup

Executive Steering Team Membership

Name	Workgroup/ Sector	Agency	Email
Gerry Sjerven	Infrastructure/ Utility (Co-Chair)	MN Power	gsjerven@mnpower.com
Sean Vaughn	Hydro/State (Co-Chair)	MNIT@DNR	sean.vaughn@state.mn.us
Dan Ross	At Large	MnGeo	dan.ross@state.mn.us
Clinton Little	Stakeholder/ Manager	DNR Costal Program	clinton.little@state.mn.us
Jennifer Corcoran	Vegetation/ State	DNR Forestry	jennifer.corcoran@state.mn.us
Joel Nelson	Hydro/Education	U of MN	nels1945@umn.edu
Mark Reineke	Hydro/Private	WSN	mark.reineke@wsn.us.com
Chris Sanocki	Hydro/Federal	USGS	sanocki@usgs.gov
Andrea Bergman	Hydro/State	MNIT@DNR	andrea.bergman@state.mn.us
Rick Moore	Hydro/State	MNIT@DNR	rick.moore@state.mn.us
Collin Lee	Infrastructure/ State	DOT	colin.lee@state.mn.us
Jack Kluempke	Infrastructure/ State	Commerce	jack.kluempke@state.mn.us
Alison Slaats	Acquisitions / State	MnGeo	alison.slaats@state.mn.us

Resources:

The 3DGeo Committee will use the work and accomplishments of many earlier committee efforts.

Past Committees

[Digital Elevation Committee](http://www.mngeo.state.mn.us/committee/elevation/index.html) (<http://www.mngeo.state.mn.us/committee/elevation/index.html>)

[LiDAR Research and Education Subcommittee](http://www.mngeo.state.mn.us/committee/elevation/research_education/index.html)

(http://www.mngeo.state.mn.us/committee/elevation/research_education/index.html)

[Hydrography Committee](http://www.mngeo.state.mn.us/committee/hydro/) (<http://www.mngeo.state.mn.us/committee/hydro/>)

Data Resources

[Elevation Data for Minnesota](http://www.mngeo.state.mn.us/chouse/elevation/index.html) (<http://www.mngeo.state.mn.us/chouse/elevation/index.html>)

[LiDAR Elevation Data for Minnesota](http://www.mngeo.state.mn.us/chouse/elevation/lidar.html) (<http://www.mngeo.state.mn.us/chouse/elevation/lidar.html>)

November 4th, 2015 LiDAR Committee Scoping Meetings Materials

Committee/Workgroup Needs:

The Executive Steering Team will be working with the GAC Outreach Committee and the MN GIS/LIS Consortium to help solicit membership for each workgroup, and identify workgroups missing from this plan.

Dependencies and Interrelationships:**Steering Team**

- MnGeo hosts and designs 3DGeo webpages with Executive Steering Team collaboration.
- MnGeo hosts 3DGeo SharePoint site with content provided by the Executive Steering Team

Workgroups

Workgroups depend on the Executive Steering Team for guidance related to committee reporting and governance.

Risks:

- LiDAR and other 3D data procurements will not be standardized.
- Inaccuracies will be incorporated into future derived elevation data.
- Lack of standards for data development and data application of 3-D data derived products.
- Projects utilizing state funding will produce data not suitable for distribution and application in other projects.

Additional Comments:**Date approved by the Geospatial Advisory Council:**

Archiving Workgroup

Work Plan date: 2/7/2019

Chair and vice chair:

Ryan Mattke - University of Minnesota Libraries (Chair)

Karen Majewicz - University of Minnesota Libraries (Vice Chair)

Link to committee/workgroup charter:

[Archiving Workgroup Charter](#)

Accomplishments from 2018

- Group formed
- Engaged with data stewards at various levels of government, academic institutions, and relevant stakeholders
 - Distributed a stakeholder survey to obtain feedback regarding the possible archiving of geospatial data and to provide a framework for compiling a more comprehensive questionnaire for data stewards and stakeholders to capture the relevant topics of interest toward data archiving methods, prioritization of archival dataset pilot projects, and related data archiving concerns such as retention policies, licenses and data use agreements, funding strategies, etc.
 - (Survey report forthcoming)
- Creating a priorities list of data sets to focus on for archiving purposes
 - (Expected completion: February 2019)

Work Plan for 2019

Planned activities and deliverables:

- Create a priorities list of data sets to focus on for archiving purposes (**February 2019**)
 - Use analytics as part of decision making
 - Communicate with data consumers to get a sense of their priorities
 - GAC priorities list (ex: Aerial Photography, parcel data, street centerlines, address points, etc)
- Collaborate with MnGeo on a strategy for how they will archive their historical aerial imagery layers – possible pilot (**February 2019**)
- Draft outline of presentation for GIS/LIS (**March 2019**)
 - To be submitted in May 2019
- Explore ways to streamline or eliminate license agreements (**April 2019**)
- Explore what an archiving agreement would look like (**May 2019**)
 - Agreement for archiving services
 - Agreement to retain data in the archive per data retention policies
- Create an archiving strategy that includes policies, best practices, and procedures to be reviewed by the geospatial community and approved by the GAC (**June 2019**)

- Identify possible repositories for data
- Estimate costs associated with the archiving data
- Recommend funding strategy
- Report for GAC (**July 2019**)
- Educate the geospatial community about archiving – benefits, costs, what does it mean (send communications by **March 2019**)
 - Recruit testimonials from data consumers who benefit from historical data, they are often not the data creators
 - Present at 2019 GIS/LIS (**October 2019**)

Roles and responsibilities:

David Bendickson - Minnesota National Guard

Art Botello - Minnesota Department of Transportation

Len Kne - University of Minnesota

Mark Kotz - Metropolitan Council

Mike Koutnik - Esri

Karen Majewicz - University of Minnesota Libraries (Vice Chair)

Andra Mathews - Minnesota Center for Environmental Advocacy

Ryan Mattke - University of Minnesota Libraries (Chair)

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

Estimated time commitment for participants is two to five hours per month (one hour per month for group meeting, one hour per month for group meeting preparation, and up to three hours per month to accomplish the work of the group). Some participants will be needed to work on specific one-time tasks that may be more time consuming.

[Subgroup list and membership](#)

Resources:

N/A

Committee/workgroup needs:

None at this time

Dependencies and interrelationships:

None at this time

Risks:

Risks include a lack of interest or enthusiasm from data producers, technical requirements for possible pilot projects, and possible complications arising from data licenses.

Risk mitigation will include outreach and communication about the goals of the workgroup, planning and collaboration with regards to technology, and a review of the various licenses applied to the data by data producers.

Additional Comments:

None at this time

Date approved by the Geospatial Advisory Council:

Emergency Preparedness Committee

Work Plan date: February 1, 2019

Chair and vice chair:

Steve Swazee
sdswazee@sharedgeo.org
(612) 239-6981

Randy Knippel
Randy.knippel@co.dakota.mn.us
952-891-7080

Link to committee/workgroup charter: <http://www.mngeo.state.mn.us/committee/emprep/EPC-Charter-2014.pdf>

Accomplishments from 2018

- Conducted 3 formal full committee meetings, including a committee business meeting and an education presentation open to anyone
 - March 29
 - Guest speaker – Katie Gilmore, PAAP Drones
 - Drone aerial photography
 - October 3
 - Concurrent with Mn GIS/LIS
 - Guest speaker – Richard Butgereit, Florida Emergency Management
 - NSGIC Geospatial Preparedness Committee
 - USNG collaboration opportunities
 - December 18
 - Guest speaker – Stacey Stark, UMD and Brenda Hoppe (MDH)
 - Stacey Stark (MDH) and Brenda Hoppe (MDH) provided a professional development presentation on “GIS for Hazard Mitigation and Climate Adaptation Planning”
 - Discussed potential for Stacey forming a new EPC Tiger Team focused on All Hazard Mitigation. Suggested she also look into the 3D Geomatics Committee, since updated surface data is a primary concern. Other concerns include identifying sources for other key datasets.
- General public safety presentations and forums
 - March 5-7, 2018 – Knippel / Basques / Swazee – CGA 811 Conference, Phoenix, AZ
 - October 3-5, 2018 – GIS/LIS Conference, Duluth, MN – Various presentations
- U.S. National Grid Tiger Team
 - Randy Knippel continues to be a member of the Metro Emergency Managers Association, designated as their GIS Liaison to provide updates on general GIS activities in the metro area and the State
 - Presented at several conferences and forums promoting the U.S. National Grid
 - May 23-24, 2018 – UMGECON, LaCrosse, WI - USNG Workshop / Presentation
 - October 3-5, 2018 – Mn GIS/LIS, Duluth, MN – USNG booth
 - November 6, 2018 – UW Geospatial Summit, Madison, WI – USNG display

- Formalized USNG Implementation Working Group (IWG) to engage National USNG leaders on an on-going basis
 - <https://sites.google.com/a/sharedgeo.org/usng-iwg/>
 - Focused on 4 subcommittees
 - Administrative
 - Outreach
 - Technical
 - Training
 - Conducted 4 online meetings
 - January 17, 2018
 - May 3, 2018
 - July 18, 2018
 - October 17, 2018
 - Subcommittees are forming and at various stages of activity
- Preparing to update USNG maps for Minnesota in 2019
 - Had initial conversation with Mike Dolbow, MnGeo about working with their staff early in 2019
 - Migrated existing mxd for creating 10K maps to ArcGIS Pro project.
 - Finalizing ArcGIS Pro project for 1K maps
- Worked with NAPSG Foundation to create ArcGIS Pro Map Book template with tasks suitable for creating 1K maps anywhere in the continental U.S.:
 - <https://napsg.maps.arcgis.com/home/item.html?id=f93ebd6933cb4679a62ce4f71a2a9615>
- Damage Assessment Tiger Team
 - The Damage Assessment Group is still proceeding slowly while monitoring the progress HSEM is making with the WebEOC and iCarol applications.
 - The Workgroup's only meeting in 2018 was on August 20th.
 - Had a productive call with John Moore, Ryan Smith, and Chad Hanson with HSEM on September 25th, 2018. Recognition that a standard would be beneficial for HSEM so that they could receive damage assessment data and information from entities in a consistent format.
 - Brad Anderson had several calls with Jared Hovi at Carlton County about their successful assessment collection during the recent Federally declared disaster. Jared made available the schema, data and forms that were used for the event, including modifications\improvements that were made post event.
 - Cory Richter formatted the list of fields that HSEM provided and added their schema to the existing Damage Assessment Standard spreadsheet comparing it to the first draft of this team's proposed standard and the schemas for ESRI, Dakota County, Washington County.
 - During the EPC meeting at the Minnesota Fall GIS\LIS Cory Richter gave an update on the Damage Assessment Tiger Team activities and had an open discussion with Chad Hanson from HSEM to talk about collaboration going forward.

Work Plan for 2019

Planned activities and deliverables:

- General Committee activities
 - Conduct at least 3 meetings of the full committee
 - Discuss Tiger Team progress and provide guidance from the broader Committee
 - Knowledge and idea sharing
 - Educational presentations
 - Randy Knippel will continue to be a member of MEMA, attending monthly meetings as their designated GIS Liaison
 - Dakota County will continue to host USNG maps for the metro region, until a better solution is developed:
 - <http://maps.co.dakota.mn.us/>
 - SharedGeo will continue to actively pursue opportunities to facilitate implementation in state and local government across the Nation
 - Creation of maps and map books
 - Implementation of Emergency Location Markers
- Existing Tiger Team activities
 - U.S. National Grid
 - Mission: Promote the use of the U.S. National Grid
 - Focus will be on the Implementation Working Group (IWG) to expand what we are doing in Minnesota to a National context
 - Continue to develop collaboration website
 - Identify and engage in related activities across the nation
 - Develop standardized training and engage formal training organizations
 - Work with MnGeo to update USNG statewide maps
 - Engage in training opportunities and presentations as they arise
 - February 12-14, 2019, MN HSEM Conference
 - Damage Assessment
 - The Workgroup will continue to communicate with and monitor the progress HSEM is making with the WebEOC and iCarol applications, and any modifications to their schema.
 - Incorporate all the Damage Assessment schemas in comparison spreadsheet to evaluate the currently proposed Minnesota standard.
 - Evaluate the merit of organizing the standard to categorize attributes the different damage assessment steps. Initial Rapid Assessment, then the following more detailed damage assessments performed by building officials, etc.
 - Have public review of the proposed data standard and present a first version for approval by the GAC

Roles and responsibilities:

- U.S. National Grid
 - Leader: Randy Knippel, Dakota County
 - Randy is the primary participant in this group engages a cadre of other people in the GIS, Emergency Management, and Public Safety communities that are also implementing the USNG, as needed.
- Damage Assessment

- Leaders: Cory Richter, City of Blaine and Brad Anderson, City of Moorhead
- Cory and Brad established a list of participants representing local government in the metro area and out-state area, as well as the private sector.

Resources:

- Committee members primarily rely on the resources available to them through their employer, with their employer’s endorsement:
 - Time commitment
 - Software and hardware
 - Expenses
- SharedGeo provides additional resources as they are able to, when it fits within their mission, business plan, and budget
- USNG Tiger Team
 - Randy Knippel, Dakota County (Chair)
 - Steve Swazee, SharedGeo
 - Randy and Steve perform the direct work focused on outreach and education
- Damage Assessment Tiger Team
 - Adam Snegosky, Washington County
 - Brad Anderson, City of Moorhead Project Co-Chair
 - Cory Richter, City of Blaine Project Co-Chair
 - Geoff Maas, MetroGIS
 - John Mackiewicz, WSB & Associates
 - Mike Koutnik, ESRI
 - Philip Nagel, Bolton-Menk
 - Todd Lusk, Dakota County
 - Steve Swazee, SharedGeo (Emergency Preparedness Committee Chair)
 - John Moore, HSEM (Recovery and Mitigation Branch Director)
 - Chad Hanson, HSEM (REP WebEOC Administrator)
 - David Bendickson, MNARNG

Committee/workgroup needs:

- Committee will work within the constraints of the capabilities and availability of its members

Dependencies and interrelationships:

- This Committee depends on support from MnGeo, to the extent they are able to provide it
 - Publish and update statewide U.S. National Grid maps
 - Provide formal endorsement when necessary
 - Engage State agencies where applicable
 - Promote the use of the USNG in State agencies
 - Act as liaison to State agencies when necessary

Risks:

- Potential instability caused by leadership or participant availability

- Mitigation:
 - Ensure leaders and participants and their sponsoring organization (employer) have a vested interest in their mission
- Lack of MnGeo supporting resources
 - Mitigation:
 - Keep MnGeo informed of activities that could benefit from their involvement so they can plan accordingly
 - Minimize this dependency

Additional Comments: none

Date approved by the Geospatial Advisory Council:

Outreach Committee

Work Plan date:

February 12, 2019

Co-Chairs:

Kari Geurts

Minnesota Department of Natural Resources

651-259-5275

kari.geurts@state.mn.us

Vacant

Link to committee/workgroup charter:

http://www.mngeo.state.mn.us/committee/outreach/Outreach_Committee_charter.pdf

Accomplishments from 2018

- Set promotion of free and open data as our priority, based on GAC number one priority.
- Developed list of city GIS staff using MnGeo, LMC and other resources.
- Designed and executed survey of city GIS staff to measure perceptions and concerns about free and open data.
- Completed report of the city survey results and made it available on the MnGEO website, [Mn Cities Open Data Report](#).
- Presented at MN GIS/LIS conference on results of city survey and discussed free and open data.
- Worked with other GAC Committees to increase collaboration and coordination to promote outreach efforts.
- Continued collecting testimonials on the importance of GIS and free and open data from GIS experts and policy makers.

Work Plan for 2019

Planned activities and deliverables:

- Fill the committee co-chair position and hold full committee meetings.
- Work with other GAC Committees to increase collaboration and coordination to promote outreach efforts, focus on survey/information gathering needs.
- Look for presentation opportunities to promote free and open data.
- Look for other organizations to collaborate on the promotion of free and open data.
- Look for newsletters, blogs, and other forms of media to promote free and open data.
- Collect additional testimonials on the importance of GIS and free and open data. Focus will be to increasing the number of testimonials from policy makers and elected officials.
- Evaluate the use of the GAC YAK as a periodic newsletter for informing the GIS community and other interested parties about the activities of the GAC. Will need to define roles to ensure publications are completed in a timely basis.

Roles and responsibilities:

Active Committee Members

- Brad Anderson
- Will Craig
- Scott Freburg
- Kari Geurts
- Andrew King-Scribbins
- Len Kne
- David Kramar
- Geoff Maas
- Andrew Mcguire
- Valquiria Quirino
- Victoria Reinhardt
- Cory Richter
- Gerry Sjerven
- Michelle Trager

The co-chairs will be responsible for calling four full committee meetings in 2019.

Resources:

- Equipment - none
- Software - none
- Data - none
- Other - none

Committee/workgroup needs:

The Committee will be working with MnGeo staff to identify an appropriate collaborative workspace for the committee.

Dependencies and interrelationships:

We work closely with MetroGIS in their effort to promote free and open data. We expect this year to increase our working relationships with the other GAC committees and the participating stakeholders.

Risks:

None

Additional Comments:

None

Date approved by the Geospatial Advisory Council:

Parcels and Land Records Committee

Work Plan date:

02/08/2019

Chair:

George Meyer
Chair, parcels and Land Records
Lead Developer
Otter Tail County GIS Dept.
Office# 218-998-8310
Direct# 218-998-8313

Link to committee/workgroup charter:

http://www.mngeo.state.mn.us/committee/cadastral/parcels_and_land_records_committee_charter.pdf

Accomplishments from 2018

Completion of original committee purpose. Successful approval of a Parcel Data Transfer Standard by the GAC

Work Plan for 2019

Planned activities and deliverables:

A change of committee purpose and revision of the charter is planned to better reflect the GAC priorities of development of a plan for statewide sharing of PLSS and boundary data and begin work on a framework for sharing.

A few committee members will be meeting at the 67th Annual MSPS Meeting Feb 14th, 2019 to encourage support and information from the Surveying community.

Continuing work on outreach to promote data authorities to start sharing their parcel data.

Roles and responsibilities:

The committee will be working closely with the surveying community and its members.

Current Member List:

EMAIL	AGENCY
lisa.hanni@co.goodhue.mn.us	Goodhue County
Peter.Jenkins@state.mn.us	MnDOT
geoffrey.maas@metc.state.mn.us	MetroGIS
Chad.Martini@co.stearns.mn.us	Stearns County
gmeyer@co.ottertail.mn.us	Otter Tail County
bart.richardson@state.mn.us	MnDNR
Dan.Ross@state.mn.us	MnGeo

Mark.Sloan@co.clay.mn.us	Clay County
storliej@co.st-louis.mn.us	St. Louis County
stovernr@stlouiscountymn.gov	St. Louis County
btourtlotte@prowestgis.com	Pro-West
MarkVolz@co.lyon.mn.us	Lyon County
jward@prowestgis.com	Pro-West
hal.watson@state.mn.us	MnDNR
matt.koukol@co.ramsey.mn.us	Ramsey County
curtis.carlson@yahoo.com	private
kevin.sutherland@state.mn.us	MN DOT
mike.dolbow@state.mn.us	MNIT
patv@co.douglas.mn.us	Douglas County Surveyor

Resources:

At this time the resources needed are time on the behalf of the committee members, and interested stakeholders, along with locations for meeting locations and conference calls.

Committee/workgroup needs:

Members with knowledge of the PLSS system and surveying experience will be needed to create a format for a standard which shares necessary information.

Dependencies and interrelationships:

Continued interaction between Standards committee will be needed to provide feedback as questions and/or comments received on the standard. Outreach and communication will also take an important role in promoting use and participation in the standards data sharing.

Risks:

The primary risk of both parcel data sharing and an eventual PLSS data sharing will be resistance by the data authorities. Mitigation continues to be outreach, and promotion of the benefits of data sharing

Additional Comments:

None

Date approved by the Geospatial Advisory Council:

Standards Committee

Work Plan date: January 17, 2019

Chair and Vice Chair: Chair, Mark Kotz
Metropolitan Council

Vice Chair, Andra Mathews
MN Center for Environmental Advocacy

Link to charter: <https://www.mngeo.state.mn.us/committee/standards/>

Accomplishments from 2018

- **Parcel Data Transfer Standard**
 - Version 1.0: Adopted by the GAC after the committee completed a final round of public review
 - Version 1.1: Documented needed revisions and initiated a 45-day stakeholder review period for feedback on the proposed revisions
- **Address Point Data Standard**
 - Completed updates to the adopted standard
- **Road Centerline Standard**
 - Coordinated a 60-day public review of the initial proposed standard; documented and responded to public comments
 - Continued progress on revising and advancing the standard for a second round of public review in early 2019
- Created and published a centralized, shared domain and look-up table for all GAC standards
- Began reformatting and updating original Governor's Council on Geographic Information standards as GAC standards
- Formal outreach activities: Presentation on 'Advance of Geodata Standards in Minnesota' at:
 - UMGEOCON in La Crosse, WI (May 23-24, 2018)
 - State Agency GIS Training Day in Arden Hills, MN (Nov 15, 2018)
- Reinvigorated the committee:
 - Held five well-attended and highly productive committee meetings during 2018
 - Maintained consistent, high-level engagement of committee members in meetings and in carrying out assigned tasks between meetings
 - Continued strengthening the relationship between the Standards Committee and other GAC committees
 - Established a presence in the geospatial community that is visible, responsive and productive
 - Created a first draft of a 'Standards Guidelines and Operations Procedures' document
 - Conducted on-going revision, review and improvement of internal Standards Committee procedures, external communications and work processes to ensure efficiency and transparency

Work Plan for 2019

Planned activities and deliverables for 2019:

- Complete the Road Centerline Standard and have it approved by the GAC
- Complete a revision to the parcel data transfer standard
- Modify several original GCGI standards to the GAC format and have adopted by the GAC
- Engage stakeholder groups to review and modify other original GCGI standards
- Facilitate the creation of usage guides for key GAC standards
- Complete a procedures document for the GAC standards process
- Additional NG9-1-1 proposed standards
- Promotional efforts for GAC standards

Roles and responsibilities:

The Standards Committee's primary responsibility is to **facilitate and manage** a transparent and inclusive process for the creation, review and advancement of **geospatial** standards **for the benefit of the broad Minnesota geospatial community**.

Resources:

The primary resources needed by the Committee are contributions of members' time and expertise to

- Review and guide proposed standards
- Attend and participate in meetings
- Review public comments for standards and related responses
- Accept and complete action items related to modifications to standards (research options, propose clearer language, etc.)

The Committee requires the use of MnGeo staff time for updating and maintaining its web presence

Committee needs:

The Committee's only core needs are the continued commitment of its membership to participate and for MnGeo to continue to host its website.

Dependencies and interrelationships.

As mentioned above, the Standards Committee has been committed to maintaining solid relationships with other committees and work groups and is prepared to continue to maintain these. The Standards Committee is dependent on stakeholder interests with a business need to develop and advance candidate standards which aim to satisfy those needs.

Risks:

Potential risks include meeting fatigue, reduction in interest and participation of members and stakeholders and the danger of 'paralysis of analysis'.

Additional Comments: None

Date approved by the Geospatial Advisory Council:

Submitted for approval at 3/6/19 meeting

Agenda Item 2. GAC overall accomplishments & work plan review and approval

Work Plan date: 1/14/19

Chair and vice chair: Mark Kotz, David Brandt

Link to [GAC Mission and Guiding Principles](#):

Link to [GAC Committees and Workgroups](#):

Accomplishments from 2018

- Approved the GAC Parcel Data Transfer Standard to provide a single, commonly accepted set of attribute specifications for transferring and aggregating parcel data in Minnesota.
- Approved modifications to the language in GAC standards to better describe the role of the GAC and make the standards more sector agnostic.
- Launched a new Archiving Workgroup to define policies, 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.
- Wrote letters of support for an LCCMR project proposal for remonumentation of PLS corners, and for metro county efforts to aggregate and freely share data in GAC standard formats.
- Endorsed MnGeo's initiative to create and open data aggregated parcel layer.
- Created a specific seat on the GAC for surveyors.
- Initiated a new statewide geospatial priorities survey, receiving 400 responses.
- Identified statewide geospatial projects important to the geospatial community and defined 2019 priorities for the GAC and recommendations for MnGeo priorities.
- See [committees and workgroups page](#) for their annual reports with 2018 accomplishments.

Work Plan for 2019

Planned activities and deliverables:

The GAC meets on a quarterly basis. The Leadership Team meets between GAC meetings. The bulk of the work is done by the [committees and workgroups](#) of the GAC. Key goals of the GAC itself for 2019 include:

- Approve a GAC road centerline data standard and ratify older standards approved by the Governor’s Council on Geographic Information.
- Launch a new committee to guide the sustainability of the MnGeo imagery service and recommend improvements over time.
- Promote and facilitate progress on the statewide geospatial projects and initiatives identified by the GAC.
- Continue to increase outreach to the geospatial and related communities. This will be done both through the formal efforts of the Outreach Committee and less formally by GAC members further reaching out to and coordinating with their sectors.
- Conduct an annual geospatial community priorities survey.
- See [committees and workgroups page](#) for their annual reports with 2019 planned activities.

2019 Priorities

GAC Rank	Project or Initiative Name
1	All public geospatial data in MN to be free and open to everyone
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.
3	Updated and aligned boundary data from authoritative sources
4	Statewide publicly available parcel data
5	A policy and procedures for archiving and preserving historical geospatial data
6	Statewide publicly available road centerline data (including a data standard)
7	New LiDAR data acquisition across Minnesota for use in developing new derived products guided by committee developed standards
8	Statewide publicly available address points data
9	MN focused basemap services
10	A parks and trails data standard
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
12	Accurate hydro-DEMs (hDEM) that serve modern flood modeling and hydro-terrain analysis tools, and the development of more accurate watercourses and watersheds

Roles and responsibilities:

Chair: Mark Kotz

Vice Chair: David Brandt

MnGeo Ex-Officio member/CGIO: Dan Ross

Leadership Team: (acts as an executive group to develop agendas, identify strategic items, etc.)

Members: Mark Kotz, David Brandt, Dan Ross, Jeff Bloomquist, Len Kne, Victoria Reinhardt, Cory Richter

Resources:

No significant resource commitments for the GAC beyond the time/talent of members.

Council needs:

The GAC relies on MnGeo staff for scheduling and hosting meetings, creating minutes and other administrative functions.

Dependencies and interrelationships:

Committees and Workgroups: The GAC is completely dependent upon the committees and workgroups that do most of the actual work of the GAC. The GAC must also stay in touch with a wide group of stakeholders in the geospatial community to be able to represent their interests. Most GAC members represent a specific sector, though a few are at-large members.

Risks:

A change in legislation or lack of MnGeo support could negatively affect the ability for the GAC to accomplish goals.

Additional Comments:

Date approved by the Geospatial Advisory Council: expected 3/6/19

Agenda Item 3. Image Service Sustainability Committee charter & work plan approval

Image Service Sustainability Committee Charter

Mission statement:

Support administration of the MnGeo Image Service (“the Service”) and provide recommendations for improvements over time so that it can continue to provide versatile, consistent, and affordable access to statewide raster data. MnGeo needs broad GIS Community feedback on prioritizing layers in the Service with a goal of sustaining its viability. This will help MnGeo take action if and when it becomes necessary to limit the number of layers in the Service. MnGeo also needs advice and recommendations for improving the Service over time as technologies and capabilities change. This Committee of the MN Geospatial Advisory Council (GAC) will organize and provide that feedback.

Objectives and Deliverables:

- 1) Maintain and revise the “Minnesota Geospatial Image Service Sustainability Plan”.
- 2) Review existing layers in the MnGeo Image Service.
- 3) Review proposed additions to the Service and/or inclusion within the Composite Service.
- 4) Make layer status change recommendations based on the decision factors in the Sustainability Plan.
- 5) Notify the GAC and MnGeo of those status change recommendations.
- 6) Evaluate potential enhancements or improvements to the Service considering factors such as geospatial community needs, changes in technology and cost.
- 7) Make recommendations to MnGeo for improving the Service.

Resource requirements and timing:

At least annual meetings.

We will use the team website set up for the proposal work -
<https://metcmn.sharepoint.com/sites/MNIS/SitePages/Home.aspx>

Anticipated participants and their roles and responsibilities:

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

Name	Organization	Interest	Status
Matt McGuire	Metropolitan Council	Performance, availability, sustainability	Committee Chair
Mike Dolbow	MnGeo	Maintain service viability	Committee Vice-chair
Jennifer Corcoran	DNR	Forestry	Confirmed Member
Dennis Kepler	DNR		Presumed Member
Steve Kloiber	DNR	Remote sensing	Confirmed Member
Ryan Mattke	University of Minnesota	Archiving	Confirmed Member
Chris Mavis	Hennepin County	Surveying	Presumed Member
Joe Sapletal	Dakota County	Counties, contributors	Confirmed Member

Prepared by:

Matt McGuire – matt.mcguire@metc.state.mn.us

Date approved by the Geospatial Advisory Council:

Image Service Sustainability Committee

Work Plan date: 2019

Chair and vice chair:

Chair: Matt McGuire (matt.mcguire@metc.state.mn.us)

Vice Chair: Mike Dolbow (Mike.dolbow@state.mn.us)

[Committee/workgroup Charter](#)

Accomplishments from 2018

Plan Proposal

Work Plan for 2019

Planned activities and deliverables:

- Form Committee (goal: by April 30, 2019)
- Meet to discuss Sustainability Plan (goal: by June 30, 2019)
 - Review Layers for potential changes
 - Review any proposed layer additions
 - Review and recommend changes to Composite Imagery Service
- Recommend status changes (goal: by September 30, 2019)
- On request, review proposed layer additions outside of the meeting schedule

Roles and responsibilities:

Name	Role
Matt McGuire	Schedule and conduct meetings. Ensure notes are taken. Update team site with notes, recommendations and any changes to plan document. Communicate layer status changes to GAC
Mike Dolbow	Provide service metrics used as basis for status change discussion. (MnGeo resource: Brent Lund) Communicate layers status changes to MNGeo.
Jennifer Corcoran	Represent Forestry needs in discussions
Dennis Kepler	Represent greater MN in discussions
Steve Kloiber	Represent DNR in discussions
Ryan Mattke	Represent the University of Minnesota and the archiving committee in discussions
Chris Mavis	Represent Surveying needs in discussions
Joe Sapletal	Represent County GIS needs in discussions

Resources:

- MNGeo Image Server usage layer list and annual layer usage metrics.
- MNGeo Image Server Sustainability Plan document

Committee/workgroup needs:

Teleconference capabilities

Representative from MnDOT – preferably a non-metro representative.

Dependencies and interrelationships:

Communicate with GAC Archiving Committee. If an adequate and agreed-upon “archiving method” does not present itself before layers are to be removed from the service, that may prove to be a blocker for this Committee’s work.

Risks:

Possibility of group not agreeing on any layers to remove. Mitigation approach is to rewrite document as needed to ensure MNGeo has the power and consent to remove low usage layers as necessary to sustain the service.

Additional Comments:

- There will be a consistent need to communicate the goals of this Committee and what precisely potential status changes mean. Otherwise stakeholders will need to be continually educated about what it means to remove a layer from the service, because many will interpret that as “being deleted forever”.

Date approved by the Geospatial Advisory Council:

Agenda Item 6. GCGI standards for state, county and CTU codes approval

The Governor's Council on Geographic Information is the organization that preceded the GAC. The GCGI adopted 10 geospatial standards, beginning in 1994. At its September 2018 meeting, the GAC approved the idea of having the Standards Committee revisit these standards to update them, put them in the new GAC standards format and request approval by the GAC. The first three of these standards are presented for approval.

Note that no specific database field name is required for the data elements in these three standards (though a common example is given for each for guidance). This is because the purpose is to promote the use of the standard codes in a wide variety of datasets. Other specific GAC data exchange standards like address points, parcels and roads will list specific database field names for these codes required in those standards.

6a: State ID Standard

See separate document.

6b: CTU ID Standard

See separate document.

Note that as adopted by the GCGI, both the text and integer versions of the CTU code are allowed within this standard because both are approved federal standards. Other GAC data standards like parcels and roads will specify one of the formats.

6b: County ID Standard

See separate document.

Note that we are adding the 5-digit code that is unique across the U.S. This 5-digit code is used in our other GAC data standards (parcels, roads, address points). We will update those standards to reference this County ID Standard once approved.

Agenda Item 8. Governor's Geospatial Commendation Award language changes

The Minnesota Geospatial Advisory Council is continuing a program that the Minnesota Governor's Council on Geographic Information established in 1996 to recognize significant, exemplary Geospatial activities. A [Governor's Geospatial Commendation](#) is given to a project that meets rigorous criteria. Nominations are solicited through the [Minnesota GIS/LIS Consortium](#) and by word of mouth. Awards are presented at the Consortium's annual fall conference.

For a project to receive a certificate of commendation it must demonstrate a commitment to promoting efficient and effective use of the technology; and demonstrate a willingness to collaborate in partnerships that provide benefit beyond the originating organization. Projects that provide public access to Geospatial technology and products also receive very high marks.

The award criteria require that commended projects must have:

1. Yielded tangible benefits and exceptional results
2. Had a significant impact outside the home organization, and
3. Demonstrated at least one of the following goals:
 - Efficient investments in geospatial information, such as those that serve multiple purposes or users or have exceptional cost-benefit ratios
 - Exemplary use of geospatial technology that affects positive change and/or improves the quality of life in Minnesota
 - Sharing of geographic data, expertise and technology
 - Development of geographic data as a public resource, widely available at reasonable cost
 - Establishment and promotion of geographic data standards and guidelines
 - Delivery of quality education and training programs
 - Use of GIS as an instrument for policy and decision-making
 - Fruitful discussion of issues important to Minnesota's geographic information users

Individuals or organizations may nominate their own or any other project. Nominations should include the following information:

- The project name
- A project description, including its purpose, when it began and when it was completed, if appropriate.
- Specify the goal(s) served by this project and support with examples.
- The project's impact on citizens or organizations outside the home organization, both quantitatively (e.g., the number of agencies using the product or dollar savings to taxpayers) and qualitatively (e.g., testimonials from outside organizations).
- Letters of support and recommendation from stakeholders.
- Name the individual(s) or organization(s) that would be the recipient of the award. For the organization, include the name of a representative.

These examples are provided as a [sample only](#). All complete nominations will be considered.

Nominations should be sent to the council either by email: gisinfo.mngeo@state.mn.us

or by regular mail: Minnesota Geospatial Advisory Council, c/o Dan Ross, Chief Geospatial Information Officer, MnGeo, 658 Cedar St., Room 300, St. Paul, MN 55155

For further information, please contact: gisinfo.mngeo@state.mn.us

Agenda Item 11. 3D Geomatics Committee workgroup updates

3D Geomatics Committee: Hydrologic Landforms and Hydrography Workgroup

The Hydrography Workgroup is continuing work started by the legacy Hydrography Committee with a renewed spirit and commitment to quality hydrography data. The workgroup consists of a group of dedicated individuals representing government, academia, and private sector interests. While representing diverse needs, this group is coming together as one collective voice, speaking to the need for modern LiDAR-derived hydrography data in Minnesota. This will improve watershed management decisions with modern, field-scale spatial data of rivers, streams, lakes, wetlands, and watersheds. This foundational data product will serve as the authoritative source for hydrography in Minnesota.

Where we are now

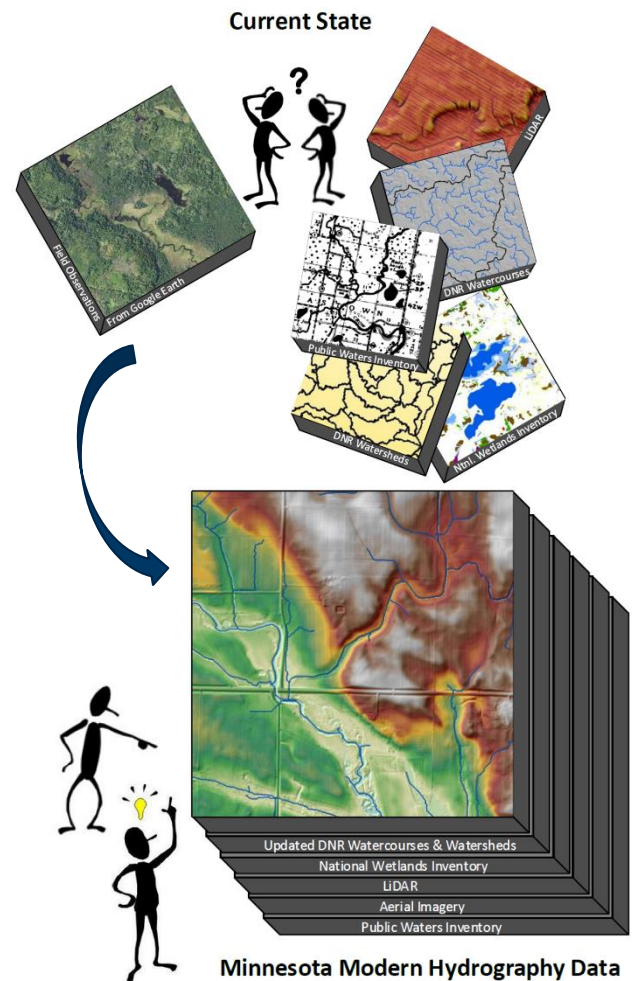
- Multiple, out-of-sync copies of hydrography data
- Locations of stream centerlines based on historic maps
- Inefficient processes for creating derived data products
- Costly field site verifications
- Missing data lowers public trust

The Future

- Single, authoritative data source
- Harmonized data that leverages recent state investments
- Automated processes identify changes on the landscape
- High-resolution data that minimizes field site verifications
- Enhanced public trust in watershed management decisions

Subgroups

Two subgroups are focusing on topics identified by the work group as important issues. The Data Catalog subgroup and Breachline Database subgroup were formed to focus on tasks needed in creating new LiDAR-derived hydrography.



Data Catalog Subgroup

Mission: To create an inventory of existing geospatial hydrography data used across Minnesota to help guide the development of new LiDAR-derived hydrography to better serve modern business needs.

Within the next 6 months the Data Catalog subgroup will have a list of data layers widely used in Minnesota, along with information about user needs that are not being met by the existing data. This data will be presented to the Hydrography Workgroup to aid them in determining requirements to be able to provide modern LiDAR-derived hydrography data in Minnesota.

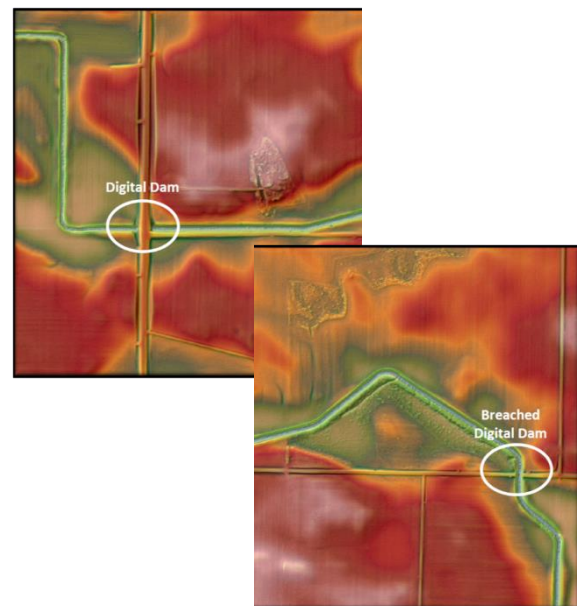


Orange line – existing stream data
Blue line – improved county data

Breachline Database Subgroup

Mission: To develop the foundation for a single, authoritative, digital dam breachline dataset for Minnesota utilizing standards and methodology through collaboration with breachline subject matter experts.

The Breachline subgroup has extensive knowledge gained in building their own individual digital dam breachline datasets and cumulatively, these datasets have hundreds of thousands of breachlines. The long term goal is to publish these features into one authoritative dataset for use in developing hydro-modified digital elevation models (hDEMs) that serve public and private business needs associated with hydro-terrain analysis tools (e.g. PTMApp and ACPF), hydrology, and hydraulic modeling of the landscape.



Contact

Workgroup Co-chairs:

Andrea Bergman (andrea.bergman@state.mn.us)

Rick Moore (rick.moore@state.mn.us)

Jamie Schulz (jamie.schulz@state.mn.us)

Steering Team Liaison:

Sean Vaughn (sean.vaughn@state.mn.us)

Workgroup Mission: “The 3DGeo Hydrologic Landforms and Hydrography Workgroup of the 3D Geomatics Committee exists to promote the consistent development of Minnesota’s hydrography data and to enable data exchange through coordination, cooperation and standards development.”

Agenda Item 13. 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	