Minnesota Geospatial Advisory Council Meeting

March 11, 2020

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) a. Introductions b. Approval of agenda c. Approval of meeting minutes from 12/11/2019	11:00	15 min
2.	Review and accept committee annual reports (All) – *page 2*	11:15	5 min
3.	GAC overall accomplishments and work plan review & approval (Kotz) – *page 30*	11:20	10 min
4.	GAC chair and vice chair duties update (Richter, Kotz)	11:30	5 min
5.	GIS/LIS Consortium salary survey information item (Stovern)	11:35	5 min
6.	GIS-T conference information item (Timerson)	11:40	5 min
7.	Initiative for Climate Action Transparency (ICAT) information item (Sjerven)	11:45	10 min
8.	One Minnesota Plan Response working group update (Reinhardt) – *page 33*	11:55	10 min
9.	Break Networking	12:05	30 min
10.	Sector reports: Watershed Districts – (Steele)	12:35	10 min
11.	Updates on MN GAC priority projects and initiatives (Richter et al.) – *page 34*	12:45	40 min
12.	Legislative updates	1:25	10 min
13.	Announcements or other business	1:35	15 min
14.	Adjourn	2:00	

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

3D Geomatics Committee

Work Plan Date: January 28, 2020

Chair and Vice Chair:
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)

Accomplishments from 2019

Executive Steering Team Accomplishments

1. Continued to meet monthly
2. Developed the *'Draft Minnesota State Lidar Plan'* in October 2019
    - Presented at the MN GIS/LIS Consortium Conference, 'Let's Talk About Bringing New and Enhanced Lidar Data to Minnesota.'
    - Developed a Draft Story Map to support the draft Lidar Plan
    - Held a meeting in Duluth, MN to discuss NE Forested Area Acquisition
3. Submitted Lidar Funding Proposal for the Rainy Lake Acquisition Block (see page 21 of the Draft Lidar Plan) to USGS through their 3D Elevation Program (3DEP) using the Broad Agency Announcement (BAA) process. The BAA is a federal funding mechanism that guides partnerships between the US Geological Survey (USGS) and other Federal agencies with other public and private entities seeking high-quality 3D lidar Elevation data acquisition.
4. Discussion and formation of the Data Acquisition Workgroup in progress, Workplan almost completed
5. Sharepoint site for committee collaboration, including creation of contact list, libraries for workgroups, hosted by MnGeo and administered by MnGeo Staff
6. Re-established 2-ranked GAC priorities for 2020

    1.) Priority #6 | Accurate hydro-DEMs (hDEM) that serve modern flood modeling and hydro-terrain analysis tools, and the development of more accurate watercourses and watersheds

    2.) Priority #8 | New LiDAR data acquisition across Minnesota for use in developing new derived products guided by committee developed standards

7. Guided the early discussions and foundation for the Data Acquisition and Education Worksgroup
8. Changed the name of the Hydrography Workgroup to Hydro-Geomorphology Workgroup

Workgroup Accomplishments

9. **Infrastructure Workgroup**
    - Supported the development of the Minnesota State Lidar Plan and Story Map
10. **Vegetation Workgroup**
    - Supported the development of the Minnesota State Lidar Plan and Story Map
11. **Hydrogeomorphology Workgroup**
    - Renamed workgroup(old name was Hydrologic Landforms and Hydrography Workgroup)
    - Hosted monthly meetings
    - Breachline subgroup continued to meet monthly
    - Foundational Hydrography Data Stewards met in July, October and January
        - Intent was to gather key data stewards at State agencies quarterly to discuss any news, issues, development, needs
        - Proposal was made to establish this group as a subgroup of the Hydrogeomorphology workgroup rather than a stand-alone group
    - Established workgroup SharePoint site
        - Included calendar of relevant upcoming events, conference, training opportunities (moved to 3D Geo SharePoint site)
        - Uploaded workgroup documents including work plans, agendas, minutes, presentations, funding opportunities, and meeting recordings
        - Assigned permissions to all members based on participation role and invited them to access the SharePoint site
    - Digital Dam Breachline Subgroup
        - Built a foundation for statewide standardized breachline database
            - The next phase required to move this foundation from plan to implementation of the functional database will require additional commitment of time, labor and funding.
        - Created a centralized authoritative map of current breachline datasets
            - Will be published on Breachline Subgroup webpage in December
        - Identified non-member breachline datasets for inclusion in authoritative database
        - Continued to promote the need for a Digital Dam Breachline (burn line) QA/QC Project
            - Funding for this effort is yet to be established
        - Explored the role of the DNR Culvert Inventory App in digital dam breachline mapping and dissemination
            - Gathered member consensus on requirements for standalone App in future
    - Data Catalog Subgroup
        - Cataloged and updated references to authoritative data sources
    - 4 new members added
12. **Education Workgroup**
    - Education Workgroup inaugural meeting on 12/3/2019
    - Introduced 3D Geomatics Committee and state structure
    - Introduced Workplan and discussed membership

- Established workgroup SharePoint site
    - Updated workplan
- Established 3D Geo Education Workgroup web-page through MNIT and Nancy Rader
    - Workplan listed
    - LiDAR Education Resource links listed
- Workplan Updated from original drafts
    - Identified need to:
        - Inventory more existing LiDAR education and training resources
        - Determine audience and skill level assessment
        - Develop curricular objectives
        - Explore idea of 3D Geomatics Training website
            - Onestop for existing resources
            - Onestop for all LiDAR training activities in state
- 2020 work plan has been drafted and will be circulated and approved by workgroup members at January meeting

Work Plan for 2020

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 to generate interest in shared funding of lidar acquisition.
    - This will be accomplished by:
        - Developing a communication plan
        - Developing a collect of standardized outreach materials for various stakeholders and audiences
        - Expanding content on MnGeo website for the distribution of 3D Geomatics Committee educational materials and serve as a clearinghouse of 3D technology information
        - Review methods to engage stakeholders to gauge user needs
        - Reviewing previous surveys to identify potential needs and areas of focus
        - Collaborating and partnering with the Geospatial Advisory Council's (GAC) Outreach Committee
- Continue to update the existing Minnesota State Lidar Plan and Story Map
- Continue to support existing 3DGeo Committee Workgroups and explore the need for any additional workgroups (Wildlife)
- Establish and expand the Infrastructure, Vegetation, and Data Acquisition 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 2020 for the June 2020 GAC meeting
- Work with GAC Chair to have 3DGeo Workgroup chairs/co-chairs or Champions present updates to GAC in person.

Committee Structure

Workgroups (sectors of expertise):

- Hydro-geomorpholoy
- Vegetation
- Education & Outreach
- Human Infrastructure
- Emergency Management
- Data Governance
- Data Acquisition
- Agency & Stakeholder Decision Makers

Committee Organizational Diagram

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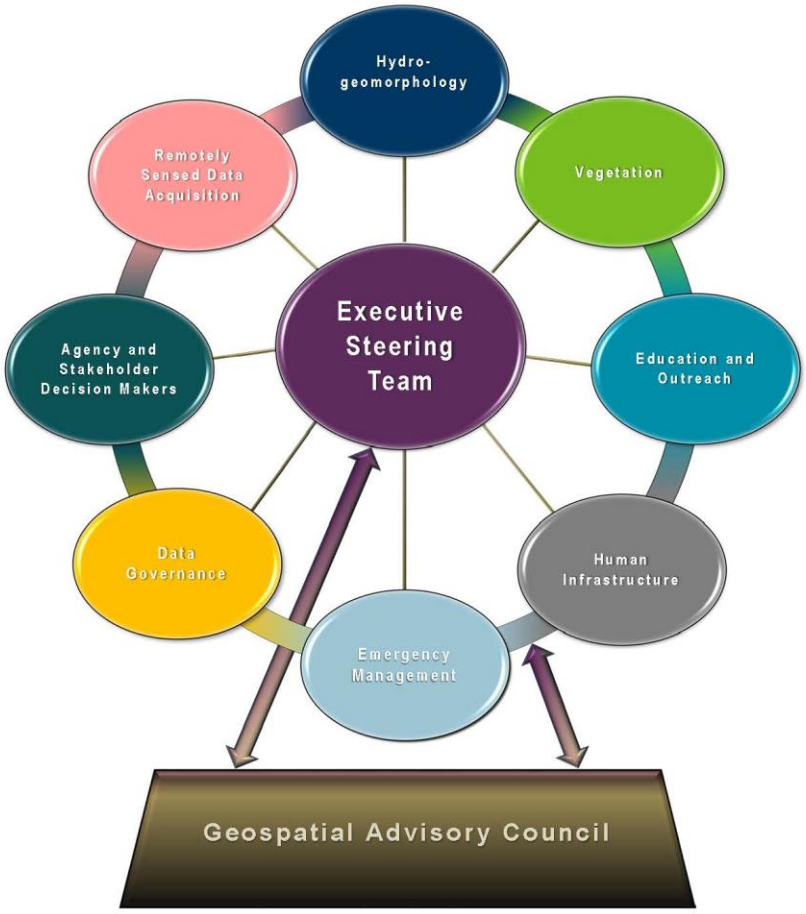
3D Geomatics Committee Organization

Version 9.3.2019



Q: What is the 3DGeo Committee?

A: The 3D Geomatics Committee (3DGeo) is committed to identifying and promoting the need for planning, training, funding, acquisition, and management of three-dimensional geomatic data and derived products. The **architecture** of 3DGeo brings dozens of stakeholders together to serve common goals under one Geospatial Advisory Council (GAC) charter. **Membership** of 3DGeo is comprised of subject matter experts organized by workgroup sectors. Each workgroup operates by the guidance of its own work plan. Workgroup members specialize in data development, management, dissemination, application, and end user business needs. An **Executive Steering Team** leads committee administration, decision making and GAC reporting. The **colored ring** connecting workgroups represents membership crossover between sectors of expertise; it illustrates the blending of roles and the knowledge base amongst the workgroups when needed (i.e., there are no barriers and some committee members serve more than one workgroup and the Executive Steering Team). **Spokes** in the diagram indicate a hub for communication with the Executive Steering Team (each workgroup has at least one member attending Executive Steering Team meetings). The **heavy arrows** represent quarterly updates and occasional presentations from the Executive Steering Team and periodic special reports from the Workgroups delivered to the GAC. In summary, the **design of this committee** allows a large and diverse membership to have 1) small, focused, and expert-led meetings that carry out unique committee action items, and 2) intricate ties with Minnesota's foundational and authoritative spatial data products like LiDAR, with decision making responsibilities.

For updates and comments contact committee co-chair: Sean Vaughn MNIT@DNR, sean.vaughn@state.mn.us

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
Jim Krumrie	**Acquisitions / State**	**SHPO**	Jim.Krumrie@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)
LiDAR Research and Education Subcommittee
(http://www.mngeo.state.mn.us/committee/elevation/research_education/index.html)
Hydrography Committee (http://www.mngeo.state.mn.us/committee/hydro/)

Data Resources

Elevation Data for Minnesota (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)
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:

December 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 Implementation Workgroup Charter

Accomplishments from 2019

- Initial planning/formation

Work Plan for 2020

Planned activities and deliverables:

- Technology plans and workflows
- Outreach & Education
- Educate the geospatial community about archiving – benefits, costs, methods (begin sending communications by **March 2020**)
- Pilot Project
- Draft outline of presentation for GIS/LIS (**March 2020**)
    - To be submitted in May 2020
- Engage with data creators at various levels of government, academic institutions, and relevant stakeholders (begin sending communications by **April 2020**)
- Develop a pilot project for archiving data in a repository (**May 2020**)
- Develop recommendations for a detailed program for archiving geospatial data, including governance, guidelines, procedures, and the necessary social infrastructure (**July 2020**)
- Develop recommendations for detailed technical infrastructure needs, plans, and workflows for archiving geospatial data (**July 2020**)
- Explore funding strategies and develop recommendations (**July 2020**); to possibly include:
    - Grant funding

    - Legislative funding
    - Agency funding
- Report for GAC (**August 2020**)
- Present at 2020 GIS/LIS (**October 2020**)

Roles and responsibilities:

Sarah Barsness - Minnesota State Archives
David Brandt - Washington County
Jennifer Corcoran - Minnesota Department of Natural Resources
Jon Hoekenga - Met Council
Melinda Kernik - University of Minnesota Libraries
Len Kne - University of Minnesota
Leanne Knott - Goodhue County
Carol Kussmann - University of Minnesota Libraries
Brent Lund - MNIT / MnGeo
Karen Majewicz - University of Minnesota Libraries (Vice Chair)
Andra Mathews - Minnesota Department of Transportation
Ryan Mattke - University of Minnesota Libraries (Chair)
Nancy Rader - MNIT / MnGeo
Soren Rundquist - Environmental Working Group
Sandi Stroud - MnGeo
Zeb Thomas - MNIT / Minnesota Department of Natural Resources
Ben Timerson - Minnesota Department of Transportation
Brandon Tourtelotte - Pro-West & Associates

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.

Resources:

N/A

Committee/workgroup needs:

None at this time

Dependencies and interrelationships:

- Coordination with the Minnesota State Archives

Risks:

Risks include:

- Lack of interest or enthusiasm from data producers
- Technical requirements for archiving data
- Issues identifying funding

Risk mitigation will include:

- Outreach and communication about the goals of the workgroup
- Planning and collaboration with regards to technology
- Collaboration and communication in seeking funding

Additional Comments:

None at this time

Date approved by the Geospatial Advisory Council:

Awards Committee

Work Plan date: December 26, 2019

Chair: Cory Richter (crichter@blainemn.gov)

Committee/workgroup Charter

Accomplishments from 2019

- Formalized the committee September 2019
- Reviewed two nomination packets for the Governor's Commendation and recommended both receive the award
- Presented posters for each nominee and a history of past winners at the Annual GIS/LIS Consortium Conference, Fall 2019

Work Plan for 2020

Planned activities and deliverables:

- On request, review nominations for commendation
- Develop promotional materials and outreach to solicit nominations for 2020
- Develop promotional materials to feature at the annual GIS/LIS Fall conference

Roles and responsibilities:

Name	Role
David Brandt	Represent metro counties in discussions
Len Kne	Represent educational institutions in discussions
Andra Mathews	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
Representative not currently serving on the GAC

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 withdraw from discussion of applications due to direct involvement with the nominated project, or because they would benefit from the project receiving the award (i.e. being a member of an organization that was part of the project).

Additional Comments:

Date approved by the Geospatial Advisory Council:

Emergency Preparedness Committee

Work Plan date: December 19, 2020

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 2019

- Conducted 2 formal full committee meetings, including a committee business meeting and an education presentation open to anyone
    - March 21
    - December 19
- 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
    - Presentations
        - October 2-4, 2019 – Mn GIS/LIS, St. Cloud, MN
            - USNG booth
            - All day workshop on GIS in the EOC, including USNG integration
            - Lightening round USNG elevator pitch
            - 30 minute presentation on "What is the U.S. National Grid"
    - Continued leadership and sponsorship of 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 30, 2019
            - April 25, 2019
            - July 24, 2019
            - October 23, 2019
        - Meeting notes and recordings available online

        - https://sites.google.com/a/sharedgeo.org/usng-iwg/quarterly/2019
    - Preparing to update USNG maps for Minnesota in 2020
        - Migrated existing mxd for creating 10K maps to ArcGIS Pro project.
        - Finalizing ArcGIS Pro project for 1K maps
    - Continued to work with NAPSG Foundation to upgrade and maintain ArcGIS Pro Map Book template with tasks suitable for creating 1K maps anywhere in the continental U.S. and added a detailed step by step narrative PDF:
        - https://napsg.maps.arcgis.com/home/item.html?id=f93ebd6933cb4679a62ce4f71a2a9615
- Damage Assessment Tiger Team
    - See attached work plan.
- Critical Facilities Tiger Team
    - See attached work plan.

Work Plan for 2020

Planned activities and deliverables:

- General Committee activities
    - Conduct at least one meeting of the leadership team (chair, co-chair, and tiger team chairs)
    - 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 host USNG maps, until a better solution is developed:
        - http://maps.co.dakota.mn.us/
    - Work with SharedGeo to develop a mechanism to allow any USNG maps and map books to be added to the USNGcenter.org map interface:
        - https://usngcenter.org/portfolio-item/mapbooks/
        - Initial design allows maps to reside anywhere on the web, requiring only a spatial index with hyperlinks to the maps, which can be generated by anyone
        - Intent is to register all Minnesota USNG maps there.
        - Work with SharedGeo to deploy and document dynamic magnetic declination diagram north arrow for use with USNG map production
            - https://mdd.sharedgeo.org/mdd-gen?date=2021.0&lat=44.7710451&lon=-93.1452739&zone=15
    - SharedGeo will continue to actively pursue opportunities to facilitate implementation in state and local government across the Nation
        - Creation of maps and map books
        - Develop mechanism and capacity to allow students to provide this service
        - 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
        - Create / update USNG statewide maps
        - Engage in training opportunities and presentations as they arise
    - Damage Assessment Tiger Team
        - See attached work plan.
    - Critical Facilities Tiger Team
        - See attached work plan.

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.
- Critical Infrastructure
    - Leader: Stacey Stark
    - Zach Vavra, U-Spatial GIS Analyst
    - Steve Swazee, EPC Co-Chair – Lead of previous MN Structures project
    - Randy Knippel, EPC Co-Chair, subject matter expert

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
    - See attached work plan.
- Critical Facilities Tiger Team
    - See attached work plan.

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:

Emergency Preparedness Committee
Damage Assessment Tiger Team

Work Plan date: December 26, 2019

Co-Chair: Cory Richter (crichter@blainemn.gov)
Co-Chair: Brad Anderson (brad.anderson@ci.moorhead.mn.us)

Accomplishments from 2019

- Held meetings 3/20/2019, 5/20/2019, 8/20/2019, 12/10/2019
- Completed aggregating data attributes and formatting the spreadsheets and supporting documentation for informal review by the emergency management community and GIS professionals directly involved with emergency management activities.
- Held an informal review of the draft standard and supporting documents August 27, 2019 through October 22, 2019.
- December 2019 updated draft standard documents to reflect comments collected during the informal review, and translating to templates for submission to Standards Committee for formal review

Work Plan for 2020
Planned activities and deliverables:

- Submit draft data standard version 0.3 to GAC Standards Committee for formal community review

Roles and responsibilities:

Name	Role
Cory Richter	Co-chair
Brad Anderson	Co-chair
Todd Lusk	County representative
Phil Nagel	Private business representative
Adam Snegosky	County representative
John Mackiewicz	Private business representative
Ryan Smith	HSEM
Steve Swazee	Emergency Preparedness Committee Chair
David Bendickson	MNARNG
Chad Hanson	HSEM

Resources:

- Emergency Preparedness Committee

Committee/workgroup needs:
Teleconference capabilities
Subject matter experts in emergency response and damage assessment

Dependencies and interrelationships:
Communicating with HSEM, State, County and local agencies to get input from all levels of emergency response to know what current standards and tools are available and in use.
Communicating with the EPC as a whole to get feedback and subject matter experts to assist in the document review process.
Communicating with the emergency management community to explain the process and share how the GIS community can assist emergency response operations.

Risks:
State and County agencies have tools already packaged and available for use. The local level agencies have greater need for a damage assessment guide for GIS and have varying capabilities and technology. It may be difficult to achieve whole community buy-in when not all agencies see a need for a guide when they have a ready-made tool. It may also be difficult to bring together GIS and non-GIS people to assess the data standard.

Additional Comments:

Date approved by the Geospatial Advisory Council:

Emergency Preparedness Committee
Critical Facilities Tiger Team

Work Plan date: January 23, 2020
Chair: Stacey Stark (slstark@d.umn.edu)

Accomplishments from 2019

- March 6, 2019: MN Geospatial Advisory Council.Presentation: *Hazard Mitigation and Climate Adaptation Planning: geospatial data gaps and opportunities*
- March 13, 2019: NMNGIS User group meeting. Presentation: *Hazard Mitigation and Climate Adaptation Planning: geospatial data gaps and opportunities*
- May 30, 2019: State Collaborators Meeting. Presentation: *Critical Infrastructure for Hazard Mitigation, Emergency Management and Climate Adaptation Planning in MN*
- October 3, 2019: MN GIS/LIS Consortium Conference Presentation: *Challenges Acquiring Accurate Critical Infrastructure Data & Ideas Moving Forward*
- December 4, 2019: Meeting with Sandi Stroud. Informal discussion of the state of the data, challenges and ideas (Stacey Stark and Zach Vavra).
- *December 13, 2019: Meeting with Duane Johnson, EM St Louis County. Informal discussion of the data and how to create interest in the EM community.*

Work Plan for 2020

Develop updated data (prioritizing fire and police) at U-Spatial using previous standards identified in MN structures project.

- Contact US Fire Marshal and MN Peace Officers to explain how we would like to use their data.
- Crosscheck Fire Marshal/ PO data from HMP-related county updates we have obtained. Request validation from 17 counties we have new projects with in 2020.
- Continue to validate workflow with other partners.
- Publish fire and police to Mn GeoCommons as U-Spatial (timeline - Dec 2020).
- Continue to look for funding to support this work.
- Conversations with MDH and MDE about publishing versions of their datasets as CI on GeoCommons.
- Catalog available authoritative data sources.

Planned activities and deliverables:

- Hold meeting for interested collaborators.
- Create ArcGIS online map for counties to validate their data (counties U-Spatial has other projects with, as a prototype for workflow).
- Present at Association of MN Emergency Managers, September 2020.
- Publish comprehensive statewide dataset of fire and police to Mn GeoCommons.

Roles and responsibilities:
Stacey Stark, Chair
Zach Vavra, U-Spatial GIS Analyst
Steve Swazee, EPC Co-Chair – Lead of previous MN Structures project
Randy Knippel, EPC Co-Chair, subject matter expert

Key Potential Collaborators/Invitations
Randy Knippel, Dakota County
Matt Goodman, St Louis County
Jared Hovi, Carlton County
TBD, HSEM
Mike Dolbow, MDE

Resources:
People listed above. Also John Olson, HSEM, Sandi Stroud, MnGeo, U-Spatial Staff. Counties or states who manage these datasets actively. MN Structures project from 2009.

Committee/workgroup needs:
Teleconference capabilities, time.
Subject matter experts in emergency management

Dependencies and interrelationships:
Buy-in from US Fire Marshal and MN Peace Officers to use reporting to their offices as starting points for spatial data creation and to share with the Mn Geospatial community.
Participation from counties to validate their data.
Staff time at U-Spatial to cross check data and locate addresses to buildings.
U-Spatial Hazard Mitigation Planning and flood analysis require these data, so these projects need to continue if U-Spatial continues this work.

Risks:
Agency resistance to filtering their data for emergency management purposes or publishing a different version on the GeoCommons?

Additional Comments:

Date approved by the Geospatial Advisory Council:

Image Service Sustainability

Work Plan date: 1/27/2020

Chair and vice chair:
Matt McGuire (matt.mcguire@metc.state.mn.us)
Mike Dolbow (Mike.dolbow@state.mn.us)

Committee/workgroup Charter

Accomplishments from 2019

- First layer status change recommendations sent to MnGeo.
- MnGeo updated layer list to indicate status: https://www.mngeo.state.mn.us/chouse/wms/wms_image_server_layers.html
- Plan to solicit new imagery yearly

Work Plan for 2020

Planned activities and deliverables:

- Planning meeting (goal: by Jan 30, 2020)
- Edit Charter (goal: Jan 30, 2020)
- Prioritized Technical Recommendations to MnGeo (goal: by Feb 28th, 2020)
- Deliver Layer Status Change recommendations (goal: by March 31st, 2020)
- Improve documentation on how to contribute imagery (goal: March 31st, 2020)

Roles and responsibilities:

Name	Role
Matt McGuire	Schedule and conduct meetings. Update team site with notes, recommendations and any changes to plan document. Communicate layer status changes to GAC
Mike Dolbow	Ensure notes are taken.
Alison Slaats	Represent MnGeo (Service Owner). Communicate layers status changes to MnGeo and communicate from MnGeo to the committee as necessary.
Brent Lund	Technical Liaison. Provide service metrics used as basis for status change discussion quarterly or yearly.
Jennifer Corcoran	Represent Forestry needs in discussions
Nancy Read (MMCD)	Represent Metro Regional Agency needs
Dennis Kepler	Represent Greater MN in discussions
Ryan Mattke	Represent the University of Minnesota, research/library needs and the GAC's Archiving Implementation Workgroup 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

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.

Risk – members of the broader community may insist on all layers existing forever.

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:

Outreach Committee

Work Plan date: January 16, 2020

Co-chairs:
Kari Geurts, Co-Chair
Minnesota Department of Natural Resources
651-259-5275
kari.geurts@state.mn.us

Nick Meyers, Co-Chair
Esri
612-597-7027
nmeyers@esri.com

Link to committee/workgroup charter:
http://www.mngeo.state.mn.us/committee/outreach/Outreach_Committee_charter.pdf

Accomplishments from 2019

- Set promotion of free and open data as our priority, based on GAC number one priority.
- 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.
- Established relationship with League of MN Cities to help disseminate the importance of open data to all the Cities within MN.
    - They will be writing an article in the spring of 2020
    - Presentation at the League of MN Cities Conference in June
- Explored option to use the GIS/LIS Consortium G-Suite/ArcGIS Hub for centralize portal for the committee and other to use

Work Plan for 2020

Planned activities and deliverables:

- Establish G-Suite/ArcGIS Hub for centralize portal with GIS/LIS Consortium
- Work with other GAC Committees to increase collaboration and coordination to promote outreach efforts
- Collaborate with the GAC Commissioner workgroup
- Look for presentation opportunities to promote free and open data
    - League of Minnesota Cities article
    - Association of Minnesota Counties
- Look for newsletters, blogs, and other forms of media to promote free and open data
    - Getting access to data for the Hackathon
- Continue to collect success stories and share with stakeholders

- Develop branding for the resources we create, create one-page documents on the value of GIS and free and open data for stakeholder use
- Give presentation at the GIS/LIS conference

Roles and responsibilities:

Active Committee Members

- Kari Geurts
- Nick Meyers
- Andrew King-Scribbins
- Dave Morehead
- David Kramar
- Geoff Maas
- Andrew McGuire
- Victoria Reinhardt
- Cory Richter
- Gerry Sjerven
- Michelle Trager
- Brandon Tourtelotte

Resources:

- Equipment - none
- Software - G-Suite/ArcGIS Hub for centralize portal, no cost for the GAC
- Data - none
- Other - none

Committee/workgroup needs:

The Committee will be working with GIS/LIS staff to identify an appropriate centralized portal for the committee and other stakeholder.

Dependencies and interrelationships:

We expect this year to increase our working relationships with the other GAC committees, GIS/LIS Consortium, and the GIS community stakeholders.

Risks:

None

Additional Comments:

None

Date approved by the Geospatial Advisory Council

Parcels and Land Records Committee

Work Plan date:
01/27/2020

Chair:
Preston Dowell
Chair, Parcels and Land Records Committee
Deputy County Surveyor
St. Louis County
218-742-9824

Link to committee/workgroup charter:
www.mngeo.state.mn.us/committee/cadastral/parcels_and_land_records_committee_charter.pdf

Accomplishments from 2019

Refocused committee on the boundary alignment priority. Recruited new members. Developed preliminary plan for a boundary alignment program. Completed a preliminary project summary and justification. Presented preliminary plan at MN GIS/LIS conference.

Work Plan for 2020

Planned activities and deliverables:
Finalize boundary alignment project summary and project plan. Support effort by MnGEO to develop a Land Survey Coordinator Position at MnGEO. Begin development of a PLSS inventory for the State of Minnesota.

Continue outreach on why boundary alignment is necessary and how we plan on achieving it.

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. Roles and responsibilities of committee members will be defined as the phases of the project plan are developed and implemented.

Current Member List:

Member Name	Affiliation	Committee Role
Curtis Carlson	MNIT	
Mike Dolbow	MNIT	
Preston Dowell	St Louis County	PLRC Chair
Sam Gibson	Washington County	
Lisa Hanni	Goodhue County	

Peter Jenkins	MnDOT	
Matt Koukol	Ramsey County	
Geoffrey Maas	MetroGIS	
Chad Martini	Stearns County	
Robin Mathews	Pine County Surveyor	
George Meyer	Otter Tail County	Past Chair
Bart Richardson	MnDNR	
Dan Ross	MnGeo	Project Champion
Curt Schley	MSA Professional Services	
Mark Sloan	Clay County	
Jeff Storlie	St. Louis County	
Ryan Stovern	St. Louis County	
Kevin Sutherland	MN DOT	
Brandon Tourtelotte	Pro-West	
Pat Veraguth	Douglas County Surveyor	
Mark Volz	Lyon County	
Jen Ward	Pro-West	
Hal Watson	MnDNR	

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. These resources will be provided in kind by committee members.

The PLSS inventory mapping application will need to be developed, hosted and maintained. The committee will provide conceptual framework for the application and data schema. The development, hosting and maintenance ideally this would be taken on by MnGEO. This would be a long term commitment for hosting and maintaining the data.

Dependencies and interrelationships:

Continued interaction with the Standards Committee will be needed to provide feedback as questions and/or comments are received on the parcel data standard. Outreach and communication will also take an important role in promoting use and participation in the standards data sharing. A PLSS standard may also begin development which would take the support of the Standards Committee.

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.

The available time of PLRC members will also be a risk in developing and maintaining the PLSS status map. This project will take significant effort to build and maintain. The implementation of a Survey Coordinator position would also help mitigate the volunteer time needed for the PLSS status map.

Additional Comments:

None

Date approved by the Geospatial Advisory Council: Expected March 11, 2020

Standards Committee

Work Plan date: January 21, 2020

Chair and Vice Chair: Chair, Mark Kotz
Metropolitan Council

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

Accomplishments from 2019

- **Road Centerline Standard**
  - Completed revision of standard after first round of public review
  - Completed second round of public review
  - Made modifications to standards based on review comments
  - Had final standard approved by the GAC
- **Address Point Data Standard**
  - Made minor revisions to standard based on feedback from stakeholders
- **Parcel Data Standard**
  - Made minor revisions to standard based on feedback from stakeholders
- **GAC approval of GCGI standards**
  - Updated 5 standards previously approved by the Governor's Council on Geographic Information into the GAC standard format and had approved by the GAC:
    - CTU ID, County ID, State ID
    - US National Grid
    - Positional Accuracy Measuring and Reporting
  - Had the GAC approve removing and old, outdated GCGI coordinate exchange standard from the GAC site.
- **GAC Standards Introductory Language**
  - Made modifications to the introductory language in all GAC standards to standardize it and make it clearer.
- **GAC Standards Approval Process**
  - Finalized a document defining the GAC standards approval process and had it approved by the GAC.
- **Standards Logistics**
  - Created a central SharePoint site for shared access to committee documents
  - Began evaluating methods to reduce the level of redundant information stored and maintained for each standard. This work continues into 2020
- **Promotional Efforts**
  - Gave a presentation about GAC standards at the GIS/LIS conference

Work Plan for 2020

Planned activities and deliverables for 2020:

- Work with stakeholder groups to modify remaining original GCGI standards to the GAC format and have adopted by the GAC. This will involve review and possibly changes to these standards.

    - Minnesota Geographic Metadata Guidelines
    - Codes for Identifying Reaches and Watercourses
    - Codes for Identifying Watersheds
    - Codes for Identifying Lakes and Wetland Basins
- Work with EPC representatives toward approval of a damage assessment data standard
- Continue work on streamlining the logistics for developing and maintaining standards
- Facilitate the creation of usage guides for key GAC standards
- If ready in 2020, work with stakeholders on a stormwater data standard
- If ready in 2020, work with stakeholders on a parks and trails data standard

Roles and responsibilities:
The Standards Committee's primary responsibility is to facilitate and manage a transparent and inclusive process by which geospatial standards can be proposed, discussed, refined, adopted, and revised for the benefit of the broad Minnesota geospatial community.

Resources:
The primary resources needed by the Committee are contributions of members' time and expertise.
The Committee requires the use of MnGeo staff time for updating and maintaining its web presence

Committee needs:
- Continued commitment of committee leaders to provide key direction, support and work
- Committee member active participation
- Support for creation and maintenance of standard domains and standard validation tools (Met Council staff currently providing this support)
- MnGeo hosting of GAC website and committee file sharing site
- Organization and leadership of stakeholder groups who are creating proposed standards
- Individual stakeholders willing to provide comment and feedback on standards

Dependencies and interrelationships.
The Standards Committee has been committed to maintaining solid relationships with other committees, work groups, stakeholder groups and organizations. 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, burnout of key leaders, lack of clarity or understanding about the GAC standards process

Date approved by the Geospatial Advisory Council:
Submitted for approval at 3/11/2020 meeting

Agenda Item 3. GAC overall accomplishments and work plan review & approval

GAC Work Plan

Work Plan date: 1/28/20

Chair and vice chair: Mark Kotz, Cory Richter

Link to GAC Mission and Guiding Principles:

Link to GAC Committees and Workgroups:

Accomplishments from 2019

- Created the Image Service Sustainability Committee
- Created and Awards Committee
- Sunsetted the Archiving Workgroup and created the Archiving Implementation Workgroup
- Formed an ad-hoc group to look at how the geospatial community can help bring together data to improve outcomes for Minnesota in the priority areas identified by the Governor's One Minnesota Plan
- Approved the Road Centerline Data Standard
- Approved a revision to the Parcel Data Standard
- Approved a formal process for creating, approving and revising GAC standards
- Approved old Governor's Council on Geographic Information standards for state, county and CTU codes with some minor updates, as well as positional accuracy reporting and US National Grid.
- Clarified the language for the Governor's Geospatial Commendation Award
- Onboarded GAC members for new 2-year term and approved members for GAC leadership positions
- See committees and workgroups page for their annual reports with 2019 accomplishments.

Work Plan for 2020

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 2020 include:

- Approve a GAC damage assessment data standard and ratify remaining older standards approved by the Governor's Council on Geographic Information.
- Promote and facilitate progress on the statewide geospatial projects and initiatives identified by the GAC.
- Begin an effort to measure progress on GAC priorities.
- 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 2020 planned activities.

2020 Priorities

Rank	Project or Initiative Name
1	All public geospatial data in MN to be free and open to everyone
2	Updated and aligned boundary data from authoritative sources
3	The implementation of an archive for Minnesota geospatial data
4	Statewide publicly available parcel data
5	Improvements to the MnGeo Imagery Service, such as Web Mercator support, tiling, and complementary options such as "composite of latest leaf off imagery", and downloading options
6	Accurate hydro-DEMs (hDEM) that serve modern flood modeling and hydro-terrain analysis tools, and the development of more accurate watercourses and watersheds
7	Statewide publicly available road centerline data
8	New LiDAR data acquisition across Minnesota for use in developing new derived products guided by committee developed standards
9	An emergency management damage assessment data standard to provide an accepted specification to support a request for State or Federal assistance after a disaster
10	Statewide publicly available address points data
11	Maps, procedures, templates and other materials to help all levels of government implement the U.S. National Grid
12	A parks and trails data standard
13	A forum (committee, workgroup, etc.) for MN geospatial professionals to discuss & share best practices, standards, lessons learned, etc. for implementing and supporting the geospatial components of NG9-1-1
14	A forum (committee, workgroup, etc.) to explore development of statewide data representing underground utilities
15	Statewide and regional (e.g. Twin Cities metro) publicly available basemap services
16	A guide for describing in metadata the specifications of unmanned aircraft systems (UAS), unmanned surface water vehicles (USV), and unmanned underwater vehicles (UUV)
17	An inventory and assessment of Minnesota's geospatial data assets
18	Identifying a custodian and maintenance workflow for statewide critical infrastructure data
19	A culvert data standard

Roles and responsibilities:

Chair: Mark Kotz
Vice Chair: Cory Richter
MnGeo Ex-Officio member/CGIO: Dan Ross
Leadership Team: (acts as an executive group to develops agendas, identify strategic items, etc.)
Members: Jeff Bloomquist, Dave Brandt, Len Kne, Mark Kotz, Chris Mavis, Victoria Reinhardt, Cory Richter, Dan Ross, Ryan Stovern

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 3/11/20

Agenda Item 8. One Minnesota Plan Response working group update

Report date: 2/25/2020
Prepared by: Renee Huset
Meetings:

- Two meetings have been held since the December 2020 GAC meeting.
    - 2/5/2020
    - 2/26/2020 (planned)

Progress on work plan:

- Discussed approach to addressing the "One Minnesota" plan and the general idea that much of what the GAC does already fits within this framework
- Reached out to project owners and champions on 2/6/2020 and asked that they "tell us a story" about the project: what it entails and how it's impactful
    - Active projects on the GAC's list of 2020 priorities only
- Plan going forward is for this group to work on fitting these stories into the "One Minnesota" categories of:
    - Equity and Inclusion
    - Minnesota's Environment
    - Children and Families
    - Thriving Communities
    - Fiscal Accountability and Measurable Results
- Tentative plan is to use SharePoint to collaborate on this report

Additional comments:

- Working group will meet between the time of writing this report and the next GAC meeting. Additional updates to be shared at 3/11/2020 GAC meeting.

Agenda Item 11. GAC Priority Projects and Initiatives

GAC Rank	Project or Initiative Name	Status	Priority Owner	Champ
1	**All public geospatial data in MN to be free and open to everyone**	Active	Kari Geurts	Many
2	**Updated and aligned boundary data from authoritative sources**	Active	Preston Dowell	Ross
3	**The implementation of an archive for Minnesota geospatial data**	Active	Ryan Mattke	many
4	**Statewide publicly available parcel data**	Active	Alison Slaats	Kotz
5	**Improvements to the MnGeo Imagery Service, such as Web Mercator support, tiling, and complementary options such as "composite of latest leaf off imagery", and downloading options**	Active	Alison Slaats	Ross
6	**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	Many
7	**Statewide publicly available road centerline data**	Active	Sandi Stroud	Ross
8	**New LiDAR data acquisition across Minnesota for use in developing new derived products guided by committee developed standards**	Active	Gerry Sjerven	Ross
9	**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	Brad Anderson/ Cory Richter	
10	**Statewide publicly available address points data**	Active	Sandi Stroud	Ross
11	**Maps, procedures, templates and other materials to help all levels of government implement the U.S. National Grid**	Active	Randy Knippel	Knippel
12	**A parks and trails data standard**	Active		
13	**A forum (committee, workgroup, etc.) for MN geospatial professionals to discuss and share best practices, standards, lessons learned, etc. for implementing and supporting the geospatial components of NG9-1-1**			
14	**A forum (committee, workgroup, etc.) to explore development of statewide data representing underground utilities**			
15	**Statewide and regional (e.g. Twin Cities metro) publicly available basemap services**	Active		
16	**A guide for describing in metadata the specifications of unmanned aircraft systems (UAS), unmanned surface water vehicles (USV), and unmanned underwater vehicles (UUV)**			
17	**An inventory and assessment of Minnesota's geospatial data assets**			
18	**Identifying a custodian and maintenance workflow for statewide critical infrastructure data**			
19	**A culvert data standard**			