Minnesota Geospatial Advisory Council Meeting

May 30, 2018

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 3/28/2018	11:00	15 min
2.	Review and accept committee summaries (All) *page 2*	11:15	5 min
3.	Thank you letters to members and supervisors (Kotz)	11:20	5 min
4.	Updates on MN GAC priority projects and initiatives *page 10*	11:25	20 min
5.	MnGeo support for priority GAC projects (Ross)	11:45	10 min
6.	Break Networking	11:55	30 min
7.	MnDOT's State Plane and Low Distortion Projections Proposals (Geoff Bitner)	12:25	20 min
8.	The Value of Accurate Section Corners (Mavis)	12:45	20 min
9.	Modernizing Land Records System (Susan Ledray) *page 11*	1:05	20 min
10.	Sector report (Bloomquist)	1:25	10 min
11.	Legislative update	1:35	5 min
12.	Announcements or other business	1:40	15 min
13.	Adjourn	2:00	

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

3D Geomatics Committee
Steering Committee

Report date: 5/17/2018

Prepared by: Steering Committee Co-Chairs: Sean Vaughn, Gerry Sjerven

Meetings:

- Continue to meet on a bi-weekly schedule, occurring:
  - 1/11/2018, 1/25/2018, 2/8/2018, 2/22/2018, 3/8/2018, 3/22/2018, 4/5/2018, 4/12/2018, 4/26/2018, 5/10/2018, and 05/17/2018
- Notes and minutes are being finalized and will be placed on the Committee website soon

Progress on work plan:

- Committee and Workgroups are on track for meeting objectives for the year.
- Guided the development of the following workgroups
  - Hydrography
  - Infrastructure
  - Vegetation
- Organized a committee spring meeting
  - Purposes:
    Serve as a time to bring the 3D Geomatics Committee together for an in-person meeting/workshop since regular meetings are held via WebEx.
  - Objectives
    Review the 3D Geomatics Committee Charter and the workplans for each workgroup
    Discuss the development of standards and collaborations to map a pathway for 3DGeo Committee guided LiDAR Acquisitions for Minnesota.
  - Date: June 12, 2018
  - Time: 10-4
  - Location: Arden Hills MnDOT Training facility .
  - Chance to
  -

Additional comments:

- Needs:
- Working on establish a Sharepoint site through MnGEO for this committee and all of its workgroups

3D Geomatics Committee
Hydrography Workgroup

Report date: 5/17/2018

Prepared by: Workgroup champions Andrea Bergman, Rick Moore, Jamie Schulz (all MNIT@DNR)

Meetings:

- Initial Workgroup kickoff meeting held 4/17/2018 (minutes)
- First of several bi-weekly meetings held 5/8/2018 (minutes)

Progress on work plan:

- Draft work plan prepared on 4/12/2018 (link to work plan)
- The three workgroup champions and Sean Vaughn, liaison to 3D Geomatics Steering Committee, worked to identify and recruit members of the workgroup.
- Workgroup web page developed with Nancy Rader, MNGeo, to begin hosting important content related to the workgroup. Link to: Hydrography Workgroup web page
- Introduced 'Current Projects of Interest' meeting component to the workgroup. These are short presentations (5 minutes) to introduce work being done by agencies or organizations that workgroup members may not know about but would find relevant to their work.
- Presentation to the group on 3D elevation derived hydrography (NXG-Hydro)
- Identified several future meeting topics important for workgroup to discuss

Additional comments:

N/A

3D Geomatics Committee
Infrastructure Workgroup

Report date: 5/17/2018

Prepared by: Workgroup champions Colin Lee

Meetings:

- Six meeting have been held in the since late March

Progress on work plan:

- Gathered list of possible group members
- Compiled & sent recruitment letter
- Created share folder via MnDOT infrastructure for collaboration
- Lots of discussion regarding standards, acquisition, business models and legacy of this program.
- Work plan has been discussed and started

Additional comments:

N/A

3D Geomatics Committee
Vegetation Workgroup

Report date: 5/17/2018

Prepared by: Workgroup champions Jennifer Corcoran and Clint Little

Meetings:

- First meeting set for May 31, 2018

Progress on work plan:

- Gathered list of possible group members
- Compiled & sent recruitment letter

Additional comments:

N/A

Emergency Preparedness Committee

Report date: May 22, 2018

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

Steve Swazee
President, SharedGeo
sdswazee@sharedgeo.org

Meetings:
March 29, 2018
Meeting focused on an update of activities related to the USNG and a professional development seminar on drone aerial photography.

Progress on work plan:
USNG Tiger Team

- GITA SW Conference in Phoenix
  - Randy Knippel conducted a 3 hour training workshop on the USNG
  - Steve Swazee gave a presentation on the USNG
- NSGIC Emergency Preparedness Working Group
  - Randy Knippel gave a webinar to about 30 attendees
  - Some follow-up with NJ Homeland Security has developed as a result. Intend to leverage them to create instructional videos.
- USNG Implementation Working Group (IWG)
  - Group of individuals from across the country actively engaged in implementing the USNG
    - Met informally in 2015, 2016, and 2017
  - Formalized as USNG IWG by Steve Swazee
    - Created public website
      - https://sites.google.com/a/sharedgeo.org/usng-iwg/home
    - Conducted initial formal meeting of IWG
      - Invited 21 people from GIS and ESS communities from across the country
      - 11 participated and are actively engaged in private collaboration website
      - Others have expressed interest and intend to engage
- USNG training for Civil Air Patrol – 5/19/18
  - Randy Knippel gave a 1.5 hour presentation and training to the 130th Composite Squadron of the Minnesota Wing in preparation for a search and rescue exercise
    - Developed and printed maps and map books
    - http://gis.co.dakota.mn.us/content/dakco/usng/mapdocuments/Sample%20Maps/CAP2018/
- UMGEOCON – Lacrosse, WI, 5/23 – 5/24

    - Randy Knippel conducted a 3 hour training workshop on the USNG
    - Randy Knippel gave presentation on an introduction to the USNG
- GITA Webinar – 5/31/18
    - Randy will present a webinar on an introduction to the USNG
- Joined "SAR and GIS" Google group
    - Found this group and noticed numerous references to the USNG
    - 343 members
    - Posted to the group message board to inform them of the USNG IWG

Damage Assessment Tiger Team

- Continuing to monitor HSEM initiative to deploy damage assessment application
- Waiting for WebEOC and Collector testing is conducted by the State
    - State Update on WebEOC and Damage Assessment: (March 29th 2018) Intermedix (vendor) would like to begin testing the WebEOC side of the damage assessment boards. State is looking at ways to address\mitigate the possibility of multiple damage entries for a location that could occur as a result of the different options where homeowners would be able report damages. The development and implementation of the Collector application is still missing, and conversations with Esri will be required.

Other Activities

- Randy Knippel continues to be an active member of the Metropolitan Emergency Managers Association as their GIS Liaison
    - Attend monthly meetings
    - Provide updates related to metro and state GIS activities
        - E911
        - Data standards
        - Geo Commons
- Dakota County continues to host USNG maps for the metro region
    - http://maps.co.dakota.mn.us/
- SharedGeo is actively pursuing opportunities to facilitate implementation in local government across the Nation
    - Creation of maps and map books
    - Implementation of Emergency Location Markers

Outreach Committee

Report date: May 22, 2018

Prepared by:
Kari Geurts, kari.geurts@state.mn.us
Len Kne, lenkne@umn.edu

Meetings:
The Committee has not met during the previous quarter, although a sub-group working on the Open Data has closed the survey of cities on their Free and Open Data practices. The Committee is scheduled to meet in mid-June.

Progress on work plan:

- Activities: The committee had a few informal online meetings to discuss the upcoming survey of free and open GIS data at cities across Minnesota.
- Accomplishments:
  - Developed a survey to send to Minnesota cities about their support and questions about free and open data. We have city contact lists from MnGeo and the League of Minnesota Cities. The survey includes several questions on the awareness and use of the US National Grid. The survey is ready and will be sent to city officials before the end of December.
  - Evaluate the use of the GAC YAK newsletter as another form of outreach for the committee. The committee continues to explore how to support the publishing of the GAC YAK.
  - Started collecting GIS success stories to promote the value of GIS to a wide range of stakeholders.
- Progress toward achieving proposed goals:
  - The data collection phase of the Free and Open data survey to Minnesota Cities is complete. We are working to clean up the data and start analysis.
- Problems or impediments: None
- Required assistance: None

Additional comments:
None

Parcels and Land Records Committee

Report date: 05/21/2018

Prepared by:

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

Meetings:

Last meeting date 05/17/2018

Progress on work plan:

Reviewed existing work plan. Expanded future goals, and included items to occur regularly.

Reviewed current committee needs and determined they are sufficient with a caveat that as we work to develop a PLSS Standard, we need to source Surveyors and PLSS experts

Established regular biennial review of Transfer Standard

Began work on best practices document for Transfer Standard. Using the metro road standard as a guide, we plan to break this into small sections and tackle piece by piece in coming meetings.

We reviewed the current status of the scripting designed to assist counties in submitting data, and data aggregation. We agreed that additional development and technical expertise will be necessary to best assist both counties and data users.

Began discussion on a PLSS standard. Determined a needs document needed to be drafted and put forward in outreach to the surveying community. The goal is to get a member of that community to have buy in and champion the development.

Additional comments:

Standards Committee
Report & Updates

Report date:
Monday, May 7, 2018

Prepared by:
Geoff Maas, Committee Chair | geoffrey.maas@metc.state.mn.us | 651.602.1638

Meetings:
Last Committee meeting was held on 2/26/18 in Maple Grove, Minnesota;
Meeting minutes are here: http://www.mngeo.state.mn.us/committee/standards/

Next Committee meeting scheduled for 7/18/2018; site of meeting TBDM; Agenda in development

Progress on work plan:
The Committee's current work plan was revised and approved by the Committee on 2/26/2018 and the Geospatial Advisory Council on 3/28/2018

Deliverable #1 for 2018 – Advancement of the Parcel Data Transfer Standard
The Geospatial Advisory Council adopted the proposed Parcel Data Transfer Standard at its regular meeting on March 28, 2018.

Deliverable #2 – Meetings in 2018
The next meeting of the Standards Committee is scheduled for July 18, 2018. Agenda items proposed for this meeting include reviewing and responding to the stakeholder input on the proposed Road Centerline Standard (out for review until June 8, 2018) and change management protocols for adopted standards.

Deliverable #3 – Updating Work Plan and Standards Procedures as needed
Work plan will be revisited and adjusted as needed and a 'change management protocols for adopted standards' will be prepared for the discussion of the Committee in 2018.

Deliverable #4 – Road Centerline Standard Review
The Standards Committee approved the Minnesota Road Centerline Standard proposal for a 60-day public review at its meeting on 2/26/2018 pending the minor recommended revisions brought forward by the Committee. The 911 Standards Workgroup prepared the requisite documentation and the standard was published on April 9, 2018, with comments to be collected until Friday, June 8, 2018.

Additional comments:

Next Steps on Minnesota Road Centerline Standard advancement process:
Stakeholder comments collected on the proposed Road Centerline Standard will be published publicly and reviewed thoroughly by the Standards Committee and 911 Standards Work Group.

The Standards Committee will convene on 7/18/2018 to determine the next steps for the proposed candidate centerline standard.

Agenda Item 4. GAC Priority Projects and Initiatives

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

Agenda Item 9. Modernizing Land Records System

Initiative to Modernize Minnesota Land Records

Presenter: Susan Ledray, Examiner of Titles, Hennepin County susan.ledray@hennepin.us

The Minnesota State Bar Association (MSBA) Real Property Section Legislative Committee formed a subcommittee to gather information about changes in technology, the practice of law, surveying, title examination, title industry business practices and the effects on ownership and marketability of real property in Minnesota. The Subcommittee is guided by an interest in having a land records system that is timely, reliable and accurate, affordable to maintain and to access, and responsive to rapidly changing technology and business practices. To launch this effort, subcommittee members held eight "Listening Sessions" and invited participation through professional association channels, and other outreach. The Sessions were held in October 2017 at the following communities: Winona, Redwood Falls, St. Cloud, Bemidji, Duluth, Minneapolis; and in St. Paul in November 2017 at the Real Estate Institute.

Sessions lasted two hours, with the exception of the St. Paul session of 1 hour. The facilitators posed topics for discussion, and recorded participant comments. To preserve any regional differences, Session notes were not consolidated.

In addition, the subcommittee has been researching land records systems, and has met with Professor and Land Registrar Nicolas Nogueroles regarding land registration practices in other countries, and with Professor Earl Epstein, author of Modernizing Land Records.

Excerpts from the Listening Session Notes, specific to Surveying/Legal Descriptions/GIS

Bemidji

Problems/Issues/Concerns re: legal descriptions/surveying

- GIS works with parcel numbers. One challenge is PIDs change with land divisions or combos.
- Plats are helpful to clean up bad legal descriptions and to simplify complicated descriptions, but the process to plat land takes months and is expensive and burdensome. Owners don't see enough benefit.
- A lot of description problems related to lakes, rivers, and large unplatted tracts.
- A lot of old plats are "off"
- Surveys are typically done with a major commercial transaction or if the county requires a survey (typically if near a lakeshore for a land division.)
- Many corners have not been remonumented. Can cost $20-40,000 for a survey due to the research involved if remonumentation has not been done compared to $2-3,000 if corner remonumentation is done. This shifts the costs from the county to the one landowner, and if one landowner pays for a survey, if lowers costs for nearby landowners.

Duluth

- Gisdata.mn.gov is a host data site maintained by the state. Host data for Ramsey, Rice, and some other counties, and make 86/87 counties GIS parcel data available through the state system.

- Counties use 8 different systems for GIS data. The state takes the data and converts it using a protocol written by the state.
- State uses PRISM. Federally mandated computer system for Property Records Information System of Minnesota. Able to analyze property tax data faster and more thoroughly to help legislators, state agencies, counties and others. 15 state agencies use gisdata.state.mn.gov information.
- The state data is technically public and must be shared if requested, but because the data is collected only 4x per year, the state typically refers the requester to the county for up to date data. There is no publicly available site for the data.
- 26 counties have free online data (GIS) Others charge. Local partners want to control the data.
- Comment about feasibility of a having a statewide GIS system as the portal to land records: It is technically possible, but lots of challenges on the way
- County uses of GIS now: 911; natural resource management, CPED, Public Health, Public Works and Transportation Planning, Water Management, land records. Tax parcel layer is key. It started with forestry management and large scale planning, and the move to parcel-level data and aerial photos is a recent development.
- GIS is mapping but the value depends on having authoritative data to map
- The clarity of aerial photos causes people to misinterpret the data
- Parcel lines are based on incomplete information, assumptions, some faulty data and hidden conflicts. Imagery can shift with the product used, and it is not survey grade.
- Cadastral tax parcel data is not representative of boundary surveys
- St Louis County has few certified survey control points
- Tax parcel data is fitted to certified survey control points
- Copyright and "read me" notices are important for disclaimers and education about the limitations of the information. Standards are critical.
- Surveyors work from authoritative data Deed is the authoritative document. Deeds conflict. Parcel depiction from tax records may not get cleaned up for years. Example of issues: A fire wall is required between buildings on different parcels. But what is a parcel? There is no uniform definition. Building inspectors would use parcel aka tax parcel and based on that require a firewall in the middle of a building (the building is built over two PIDs). Need to educate govt agencies and municipalities on what the data means.
- Whenever you create GIS layer need parcel #. Attempts to define parcels have always failed. But important part of the question.
- Ability to log into co rec system and do research on deeds, easements, I look for those. I look at photo, there's a power line out there. Can I find that. GIS is really a tax index and need to educate govt about that. To what level do you put that out to the public? Disclaimer on what looking at.

Minneapolis

- Hennepin GIS maps are accurate within 2 feet or less; outstate they are off 20 to 50 feet. 50 feet is a big deal. Don't know the level of accuracy by looking at the website.
- Tying documents to a PID and relying on a PID; if the parcel is split, must update the GIS and that is time consuming and has a cost
- GIS map can get overloaded; which documents and information is most important?
- Is zoning linked through GIS?
- No, b/c it's usually through the cities. Technically possible, but we haven't got that.
- GIS is not a legal zoning map, the minute you put info in, it's out of date.
- Maybe there could be a link from the GIS to the city's ordinance or webpage or zoning information

- Hennepin Co. GIS map can include surveys, or a note that a survey exists and name of surveyor so you can contact that surveyor to get the information
- There are many potential collaborators for GIS data sharing, which means many potential entities to cost-share
- Accurate GIS maps are very helpful for finding encroachments, for drawing out the legal description, making measurements using the measuring tools; it makes exams easier
- Title: The add-on recording fee for technology can't be sufficient for technology modernization. GIS alone is expensive. Requires aerial photos, which need to be done frequently to stay relevant. May need to find another way to fund this project.
- Educator: With Google maps we don't know the date of the photo. Counties will tell you exactly when the photo was taken. Know the sun angle, etc. He comes from GIS background, and it's only as good as the info that goes into it. Need to keep it up to keep it useful. To do research and make decisions, you must pull plats, can't rely on GIS. "Get it sort of"
- Educator: we are just looking at maps, this is not what a surveyor does. It's a rough representation, doesn't go to the depths of having a surveyor go put a stake in the ground. But if complete accuracy isn't needed, the GIS mapping is useful.
- Not all counties have plats online (county specific ordinances require)
    - Have to drive hours to get plat information for time sensitive matters, huge cost that gets passed on to the client
    - Carver Co has plats free on line. Hennepin does not
    - Customers expect very fast turn-around
- Surveys would be helpful to have access to surveys and old surveys online
- Old surveys should be digitized
- There used to be 4 people in a survey crew in the past, now there are 2 or sometimes 1 because of technology; every profession is changing due to technology pressures
- Corners in old plats are not maintained
- Not all counties maintain section corners
- Surveys are not required in transactions
    - People don't know their boundaries
- Corps of engineers (newer employee) feels way behind in process of digitizing records (tracts)
    - There are old (1897) use permits/flowage rights out there from Dept of Interior to us; are they still valid? Are they proof of ownership and title? May be missed in searches. The corps was asked to release flowage easements on land they previously sold.
- The PLS (public land survey) is what the GIS system is built on and those section corners need to be maintained but are not in some counties
    - MACS (Minnesota association of county surveyors) is trying to get re-monumentation going
    - There is an increased demand for accuracy and there are many downstream users of the information
    - If the starting point (corner) is not good, lots of problems result
- MetroGIS started about 20 years working on consistency for spatial attribution. In the 7 county metro area MetroGIS provides some funding (approx. 4k/yr to counties) to help maintain the information
- Wright county has an ordinance requiring surveyors to submit surveys to the county; Hennepin does not
- Boundary Commission- created by a local government body. Appoint a surveyor, attorney, etc. to solve a neighborhood problem. Cost is accessed to all who benefit from the solution.
- Professor: In European cadastral system, a boundary commission concept is essential. The Commission is part of the government operated system.

Real Estate Institute (Continuing Legal Education)

- In farm country, property lines are all off. This is generating a lot of work for surveyors.
- G.I.S. practices vary from county to county. – There are common mistakes with G.I.S.
- Number of acres can be off.
- Have the Assessor's information available as an under-layer on the interactive map. Issue with G.I.S. and Assessor information when they don't match.
- G.I.S. is a god-send – put G.I.S. on virtually all of the commitments.
- The future is data and spreading it.
- Risk is that non-real estate people think if it's on-line it's true – unduly rely on what is on-line.
- Public land survey is reliant on accurate corners being monumented – 10's of 1,000's are missing.
- There is a great need for re-monumenting the corners.

Redwood Falls

- Very little torrens in SW Minnesota
- Not a lot of re-monumentation in SW Minnesota
- Most counties don't have a private surveyor in SW MN. If the county surveyor is private, they don't have time to do remonumentation. A recorder noted their surveyor does virtually all work from a desk and how can that be accurate if not out in the field?
- Survey monumentation ebbs and flow; In the 1950s when crop prices were high, some surveying was done.
- GPS helps
- Bad legal descriptions hurt surveying efforts; to the right of way (centerline or other, right of way when description was first used in a deed in 1940 or right of way today after road was widened? Acreage description in a section with a shortage.)
- County Surveyor's association wants to fund out-state counties to re-monument; surveyor gave example of 3 monuments found within 20 feet of corner; which is correct, if any?
- Comments about description on paper or by PID, vs. what is actually on the ground and how does that get reconciled
- Comments about dangers of doing surveys which trigger a domino effect when the survey shows a line in a location not expected
- Lines move over time, occupation lines seem to work out over time
- Concern about surveyor methods or shortcuts; works from his desk and doesn't go out in the field
- Suggest that the state should pay for all survey information to be scanned and made available on line, statewide
- The recording technology fee helps pay for new software and imaging; a lot of it goes into GIS software updates and aerial flights and photos. This funded is needed for the future too; there will only be greater demands for tech and tech spending; are some concerns about how the tech fees are used and what complies with the statute; GIS is now web-based and the cost has come down; Cities use our GIS and it is a boon to land records.

St. Cloud

- Time and expense involved in accessing records necessary to complete the survey work
- Michael Pooler, Stearns County GIS gave a short presentation on GIS. Some points:
- PID is important for GIS. To have standardization statewide, need the same approach to PIDs, and the retirement of PIDS. Counties potentially may resist standardization.

- Attribute standards, data standards very difficult. City to city varies. Everyone wants to click and get everything but the systems behind the scenes are catching up. 71,000 parcels in Stearns. General purpose map. Mobile friendly apps. Working to get more available.
- There is a need for public information and education about what maps represent. Aerial photos with property lines. The public thinks they are accurate. The lines represent the best available information at the time. Not perfect. People think they can find boundaries using the GIS mapping. If a property line is shown as running through a garage we get a call. We start looking at it, searching back deeds, to see if a correction is in order. It becomes a resource issue.
- Picture is just a guide, and we tell people to have it surveyed. Survey is first step. Doesn't necessarily clean up problems.
- Seeing "snips" from county GIS maps included in realtor ads.
- GIS how to configure a widget and get it online,
- Title company person: Very useful to have GIS available. Use it to get confirmation this is the correct parcel. GIS mapping helps discover problems.
- Title company: Mechanic liens were the biggest claim areas. Now it's survey and boundary issues.
- GIS maps Generate calls and business for us (surveyor)
- GIS can only represent what is in the descriptions, but the descriptions may be faulty
- Interest to capture easements in GIS too. Examples given of conservation easements and land trusts as restrictions on use of land. In Mille Lacs County the title company found and noted voluntary conservation easements, but the owners ignored them and built anyway. Now it is a high problem and expense due to the improvements built.
- Having corner monumentation is very important to being able to survey property
- Crow Wing County has surveys on line, including corner monumentation surveys
- President of MACS: We are trying to remonument the entire state. There are 321, 000 corners in MN. It's a big problem when corners aren't "set". All descriptions are based on section corners and surveys and maps aren't good if the basis for the description is unclear. We also support having a county surveyor in every county. That's not the case now.
- Wisconsin provides some money to each county to support land records modernization. Some of that money was used for monumentation work
- Discussion about how to get more survey information shared and public. State law requires private surveyors who have corner monumentation information to give it to the county to put of record. A lot of surveyors won't provide that information, regardless. Is there a way to require private survey information to be available on line? If a survey is attached to a deed, it becomes a public record. Desire to have more survey information public and online, from private and public survey work
- Survey produced by private surveyor is owned by our client. We don't give it out without client's permission.
- Might be statutes about county ability to take and show surveys
- Surveying is an art and a science. GPS is not necessarily showing the correct/best location of lines. Public doesn't understand that.
- Lines drawn on GIS may be based on interpretation of a deed and location of a gov't corner. One county says there policy is not to map "gaps" and "overlaps" even if they exist. It's a judgment call whether to show these issues or not. Concerned that showing gaps or overlaps will lead to lawsuits naming the county
- Trend is to map features, not just by PID. Capture the location of wellhead, drainage field, etc.

Winona

- Less than half have a county surveyor and many have a part time surveyor

- The difficult part is many counties are in different places with their survey system, all are using different systems, which make it difficult to research across county lines. There is a fluctuation for what is available, how accurate it is, how close it represents what is on the ground, we are trying to accurately reflect what is of record.
- Even if the boundary lines aren't completely accurate, the GIS mapping helps you get a visual of the legal descriptions and is valuable
- Counties with GIS have basic information on it, with environmental layers, flood plains etc. The county has a lot of data but you have to organize how to maintain and update it. Rural counties would have a development company come in with categories but the information was never maintained by the county and couldn't be put in.
- Who will provide the data and how often would it be updated? GIS is not mandated, but if there is a topic that attorneys or others would like to have, it could be developed and added to database.
- Comment by an attorney that GIS should show tax parcels, not try to show actual property boundaries; want to know what the county is including in your tax parcel and what you are being assessed on; GIS in the attorney's county has gaps, no-man's land, other areas that don't clearly show who is being taxed on that land.

Other themes common to all the sessions:

- People don't want to pay for professional help (surveyor, attorney)
- Fewer people understand, perform, and value real estate title work
- Difficult to search for title encumbrances, e.g. easements, reservations
- Everyone needs the product "now"
- Variations in what records are available on-line and different access policies is challenging; standardization desired
- Torrens provides certainty and ease in determining owner and encumbrancers
- Information affecting ownership and use of land is in many different places
- Cost and complexity of implementing changes
- Technology changes rapidly; Technology is transformative but there is concern over data availability and hacking