

**Minnesota Cities  
Free and Open Public Geospatial Data  
2018 Outreach Survey Results and Report**



**Minnesota Geospatial Advisory Council  
Outreach Committee**

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# Minnesota Cities Free and Open Public Geospatial Data Results and Report

## Introduction

The **Minnesota Geospatial Advisory Council (GAC)** is authorized to work as a coordinating body for the Minnesota geospatial community, representing a cross-section of organizations that include counties, cities, universities, business, nonprofit organizations, federal and state agencies, tribal government, and other stakeholder. In Spring 2016, the GAC created the **Outreach Committee** with the purpose of promoting the value and importance of the geospatial infrastructure by actively engaging public policy makers and stakeholders.

Making all publicly available GIS data free and open to the public is the highest ranked GAC initiative for the second straight year (see Figure 1 below). Having easily accessible data allows for good public policy and increased transparency. The Outreach Committee early on felt it was important to focus on this priority, with one of the first steps being a survey of cities and counties to assess the current environment for free and open data. This information will feed into other committee initiatives, including an initiative to find and document compelling geospatial stories and to disseminate the stories in venues where they can inform and influence policy makers and others seeking to improve government operations, economic development, and quality of life in Minnesota.

**Figure 1 - 2018 GAC Priorities**

GAC Rank	Project or Initiative Description
1	All public geospatial data in MN is free and open to everyone
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
3	Statewide publicly available address points data (including a data standard)
4	Statewide publicly available street centerline data (including a data standard)
5	Improvements to MnGeo imagery service capabilities, such as HTTPS, tiling, downloading options, and increased refresh frequency
6	A policy and procedures for archiving and preserving historical geospatial data
7	Statewide publicly available parcel data (including a data standard)
8	Updated and aligned boundary data from authoritative data
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
10	An emergency management damage assessment data standard for rapid, post-event damage assessment GPS field collection
11	Support to move us forward toward updated LiDAR data and related standards
12	MN-focused basemap services
13	Parks and trails data standard

MetroGIS maintains a website with comprehensive materials on free and open data research, including white papers on how to promote free and open data at government agencies at all levels (see <https://www.metrogis.org/projects/free-open-data.aspx>). The purpose of this survey is to measure the current adoption and barriers to free and open data at cities in Minnesota. The survey also includes questions on current data sharing practices, requested datasets, and the US National Grid.

## **Purpose of the Survey**

Given the current uneven landscape of data policies and data availability of geospatial data in Minnesota—with some cities and counties freely sharing data, while others still requiring fees and license agreements—the Outreach Committee took on the task of developing a survey to understand and document the range of **issues and concerns** of the data producer community to providing wider availability of data. In 2016, a survey was distributed to Minnesota Counties to measure their GIS data practices ([the results are available here](#)). This current survey takes a similar approach with Minnesota cities to measure their adoption of free and open data practices.

## **Survey Recipients and Respondents**

In February and March 2018, an electronic survey was distributed via three established mailing lists:

- Primary GIS staff contacts in Minnesota cities as listed on the MnGeo Website
- MN GIS/LIS members who stated they are employed by a Minnesota city
- Minnesota Clerks and Finance Officers Association Membership List

All told, the survey was sent to 906 unique email addresses, with the survey encouraging recipients to forward the survey to colleagues who may be interested. The initial survey was sent on February 1st, with a follow-up email on February 13<sup>th</sup>.

A total of 66 surveys were completed, for an estimated 7% response rate<sup>1</sup>. While the response rate is quite low, this was expected as we were not expecting many responses from the Minnesota Clerks and Finance Officers Association Membership List recipients.

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<sup>1</sup> Because recipients of the email were encouraged to forward the survey to colleagues, the true response rate cannot be calculated.

## Results

Half (52%) of the respondents reported that their city’s geospatial data is free and open to the public (see Table 1 below). This is much higher than what was found in the survey of counties, where a third (36%) of the respondents reported their data being free and open. The survey does not ask if providing free and open data is a policy of the city/county, or rather, an operational practice.

**Table 1 - Is your geospatial data free and openly available?<sup>2</sup>**

	Cities	Counties
Yes	52%	36%
No	20%	53%
Not sure	28%	12%

The primary concerns for making data free and open are similar for both cities and counties (see Table 2 below). It is important to note that the concerns are not technical challenges, rather they involve changes to policies and practices to address concerns over data privacy, misuse, and liability. The MetroGIS website provides guidance on how to address all of these concerns.

**Table 2 - What concerns does your city/county have about making its geospatial data free and openly available? (check all that apply)**

	Cities (N=22)	Counties (N=35)
Concerns over loss of revenue from the sale of data	5%	43%
Concerns over legal liability for the geospatial data we produce	45%	37%
Concerns over not knowing who is requesting or receiving the data	32%	13%
Concerns over ‘bad actors’ acquiring and misusing the data	36%	33%
Concerns over privacy and/or security	55%	27%
Ability to redact or remove certain attributes before making data available	27%	13%

**Table 3 - Free and Open Data Survey Responses**

Questions	Question Category	Available to	Pages
1 – 2	GIS Staffing	All respondents	5 - 6
3 – 8	Data availability and dissemination	All respondents	7 – 11
9	Metadata	All respondents	12
10 – 12	US National Grid	All respondents	13
13	Is your data free and open?	All respondents	14
14 – 17	Experience with free & open data policies	Respondents who said YES to 13	14 – 15
18 – 20	Number of data requests & revenue	All respondents	15 - 17
21 – 22	Barriers to adopting free & open data policies	Respondents who said NO to 13	18
23 – 25	City & job title, comments	All respondents	19 - 21

<sup>2</sup> In the survey to the counties, the wording of the question was, “Does your county provide its data freely and openly?”

**Members of the GAC Outreach Committee (as of September 17, 2018):**

Brad Anderson, City of Moorhead

Will Craig, University of Minnesota (Retired)

Scott Freburg, Minnesota Department of Education

Kari Geurts, Committee Co-Chair, Minnesota Department of Natural Resources

Andy King-Scribbins, Hennepin County

Len Kne, Committee Co-Chair, University of Minnesota

David Kramar, Minnesota State University Moorhead

Geoff Maas, MetroGIS/Metropolitan Council

Andrew McGuire, Independent Consultant

Valquiria Quirino, Minnesota State University Moorhead

Victoria Reinhardt, Commissioner, Ramsey County

Cory Richter, City of Blaine

Gerry Sjerven, Allete, Inc.

Alison Slaats, Minnesota Geospatial Information Office

Brandon Tourtelotte, Pro-West & Associates, Inc.

Michelle Trager, Rice County

**Q1 - Does your city maintain a staff commitment for geospatial work? (check all that apply)**

#	Answer	%	Count
1	We maintain dedicated GIS staff	28.74%	25
2	We have staff in other departments maintain our GIS data as part of their work	21.84%	19
3	We contract with a vendor/consultant for our GIS work	19.54%	17
4	We contract with the county or another city	20.69%	18
5	Other (please describe)	9.20%	8
	Total	100%	87

Other (please describe)

With limited staff we do our best to maintain

1 PERSON

We are just getting into GIS

Some hybrid of a dedicated staff and staff in other departments maintaining GIS data as part of their work.

The County has a GIS site

Previously we had Staff that worked with GIS but now no one is trained and I know enough to make me dangerous.

We use the county data base and use it for land use issues. We periodically hire a vendor to help with a few other issues ERSI

We have nothing in this area.

**Q2 - Which department in your city is the steward of your geospatial data? (check all that apply)**

#	Answer	%	Count
1	GIS Department	8.89%	8
2	IT Department	14.44%	13
3	Public Works/Transportation/Engineering Department	34.44%	31
4	Planning and Zoning Department	25.56%	23
5	Public Safety Department	3.33%	3
6	Assessor Department	1.11%	1
7	Survey Department	0.00%	0
8	Other (please describe)	12.22%	11
	Total	100%	90

Other (please describe)

Administration

We utilize a shared GIS analyst with the county

Community Development

Administration

Parks

It used to fall into the IT department but now it has been bastardized into PW/Planning/P&R/IT for funding purposes

County

County does GSI, though maps in Clerk office.

GIS Analyst position is 25% IT as well

We have nothing in this area.

**Q3 - How long has your city created and/or maintained geospatial data?**

#	Answer	%	Count
1	1 to 5 years	15.79%	9
2	6 to 10 years	15.79%	9
3	10 to 15 years	28.07%	16
4	16 to 20 years	17.54%	10
5	More than 20 years	22.81%	13
	Total	100%	57

**Q4 - How do you typically receive requests for your geospatial data? (check all that apply)**

#	Answer	%	Count
1	Phone call	25.33%	38
2	E-mail	32.67%	49
3	Website Contact	10.67%	16
4	Personal Visit	16.00%	24
5	Reference from another department or jurisdiction	14.00%	21
6	Other (please describe)	1.33%	2
	Total	100%	150

Other (please describe)

We don't

We don't.

**Q5 - What types of geospatial data are commonly requested? (check all that apply)**

#	Answer	%	Count
1	Parcels	9.75%	35
2	Land Survey data (monuments, benchmarks, section corners, etc.)	4.74%	17
3	Property info (land for sale, developments, permits, etc.)	8.91%	32
4	Addresses	8.08%	29
5	Road centerlines	3.62%	13
6	Infrastructure data (streets, water, sewer, storm water, electrical, fiber optic, parks, trails, parking, etc.)	13.37%	48
7	Planimetric (building footprints, curblines, sidewalks, surface water outlines, airports, railroads, driveways, etc.)	3.90%	14
8	Contour lines and/or elevation points	5.01%	18
9	Land use and land cover data	8.08%	29
10	Zoning	12.81%	46
11	Boundaries (Wards, Districts, Precincts, etc.)	6.13%	22
12	Aerial imagery	5.57%	20
13	Construction project information	3.62%	13
14	Facilities & structures (city buildings, daycares, schools, high density housing, etc.)	3.34%	12
15	Crime data	2.51%	9
16	Other (please describe)	0.56%	2
	Total	100%	359

Other (please describe)

Parks and Recreation Data

Special event maps & parade routes

**Q6 - How is your geospatial data distributed? (check all that apply)**

#	Answer	%	Count
1	FTP	14.68%	16
2	Portal/Online website (please provide a link to your portal or website)	11.01%	12
3	Email	41.28%	45
4	Physical Medium (thumb drive, DVD, etc.)	20.18%	22
5	Other (please describe)	5.50%	6
6	Not sure	7.34%	8
	Total	100%	109

Other (please describe)

Enterprise geodatabases serving desktop clients

County

Securesend.com

ArcGIS Online web maps

Dropbox

Minnesota Geospatial Commons

**Q7 - Who distributes your geospatial data? (check all that apply)**

#	Answer	%	Count
1	In-house staff	53.75%	43
2	Vendor	10.00%	8
3	Another city	1.25%	1
4	County	25.00%	20
5	Other (please describe)	5.00%	4
6	Not sure	5.00%	4
	Total	100%	80

Other (please describe)

We use a Shared GIS position

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It will be in house staff

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Consultant Planner

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We don't

**Q8 - Is your data available from the Minnesota Geospatial Commons?**

#	Answer	%	Count
1	Yes, the city contributes	4.92%	3
2	Yes, the county contributes	31.15%	19
3	Yes, both the city and the county contribute	4.92%	3
4	No, neither the city nor the county contributes	8.20%	5
5	Other (please describe)	4.92%	3
6	Not sure	45.90%	28
	Total	100%	61

Other (please describe)

Most cities in our association do not post geospatial data that they own and manage

Anything that we have on the Commons gets there through Hennepin County

No, we are a municipal utility

**Q9 - What metadata format (documentation) does your city use with geospatial data? (check all that apply)**

#	Answer	%	Count
1	Minnesota Metadata Standard	12.31%	8
2	FGDC (Federal Geographic Data Committee)	9.23%	6
3	ISO (International Standards Org)	4.62%	3
4	Other (please specify)	7.69%	5
5	Not sure	46.15%	30
6	None	20.00%	13
	Total	100%	65

Other (please specify)

Incomplete FGDC, just what we need, not the full standard

We generally follow FGDC but don't fill out everything required by the standard

Fields relevant to us

Combo - some is MN standard, most is the Esri simple properties form

Basic information

**Q10 - Are you aware of the United States National Grid (USNG)?**

#	Answer	%	Count
1	Yes	55.00%	33
2	No	31.67%	19
3	Not sure	13.33%	8
	Total	100%	60

**Q11 - Does your city promote the U.S. National Grid (USNG) with emergency responders, emergency managers, and the general public? Some examples include maps and map books, emergency location markers, map reading, and land navigation seminars.**

#	Answer	%	Count
1	Yes	37.50%	12
2	No	46.88%	15
3	Not sure	15.63%	5
	Total	100%	32

**Q12 - Please share some examples of how your city uses the USNG.**

Maps are supplied to deputies

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Emergency Management Maps, Fire Department Pre-Planning Inspections, Fire Hydrant Inspections, Fire Incident (Run) locations

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Mapbook for emergency response based on grid

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Emergency Responders are given mapbooks with all city grids. In an emergency they are given a grid area to do work in.

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Incorporated in the Fire Dept maps and mapbooks for the EOC

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Keep and update USNG maps. Dispatch system provides USNG coordinates.

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We have created a USNG Mapbook of our city. The mapbook is available on our network, was printed & distributed to public safety, and printed copies are included with emergency response supplies.

**Q13 - Is your geospatial data free and openly available?**

#	Answer	%	Count
1	Yes	52.46%	32
2	No	19.67%	12
3	Not sure	27.87%	17
	Total	100%	61

**Q14 - What kinds of issues or obstacles did your city work through to make its geospatial data free and openly available? (check all that apply)**

#	Answer	%	Count
1	Concerns over loss of revenue from the sale of data	5.00%	2
2	Concerns over legal liability for the geospatial data we produce	20.00%	8
3	Concerns over not knowing who is requesting or receiving the data	5.00%	2
4	Concerns over 'bad actors' acquiring and misusing the data	7.50%	3
5	Concerns over privacy and/or security	20.00%	8
6	Ability to redact or remove certain attributes before making data available	7.50%	3
7	Clean and quality check the data before making it available	22.50%	9
8	Other (please describe)	12.50%	5
	Total	100%	40

Other (please describe)

County houses the data

Funding for maintaining a database

Data recency, as soon as we provide a cut of the data it's out of date

There is no official policy in place

None/issues haven't been addressed, we just produce it when data is requested.

**Q15 - Are you experiencing benefits from making your geospatial data free and openly available? If so, please summarize or describe those benefits.**

Not really, usage is low

Savings of staff time in preparing and delivering the requested data.

Yes. The public can research a property on the internet and access much of the data themselves saving staff time and getting better data.

County data is free and used often. We really don't have data in house except for cemetery.

Since we have no official policy it's difficult to explain the benefits to us because it seems like standard operating procedure.

**Q16 - If you provided an example of the benefits you are experiencing from free and openly available geospatial data, may the Outreach Committee share your example or story?**

Responses suppressed

**Q17 – OPTIONAL: If we may contact you for more information about your example, please provide your name and email address.**

Responses suppressed

**Q18 - Estimate the number of non-government requests you receive each year for your geospatial data.**

#	Answer	%	Count
1	0	0.00%	0
2	1 to 10	55.56%	15
3	11 to 20	7.41%	2
4	21 to 30	11.11%	3
5	30 or more	3.70%	1
6	Not sure	22.22%	6
	Total	100%	27

**Q19 - Estimate the amount of revenue generated from the sale of geospatial data each year.**

#	Answer	%	Count
1	\$0 (Our City requires a license agreement, but does not charge for the data)	25.93%	7
2	\$1 - \$500 per year	3.70%	1
3	\$501 - \$1000 per year	3.70%	1
4	\$1500 - \$2000 per year	3.70%	1
5	\$2000 – \$5000 per year	0.00%	0
6	More than \$5000 per year	0.00%	0
7	Other (please describe)	18.52%	5
8	Not sure	44.44%	12
	Total	100%	27

Other (please describe)

No license agreement - no charge

Usually development related...no cost associated.

Our city does not charge for data nor does it require a license agreement. For some data, special approval is needed from the specific division/department. The data is free, it is simply not "openly available".

Depends who is requesting information. For project related consultants its free

**Q20 - Estimate the number of hours city staff or vendors spend each week preparing data for external requests.**

#	Answer	%	Count
1	1 to 3 hours	33.33%	9
2	4 to 6 hours	3.70%	1
3	7 to 9 hours	3.70%	1
4	10 to 12 hours	3.70%	1
5	More than 12 hours	0.00%	0
6	Not sure	55.56%	15
	Total	100%	27

**Q21 - Is your city considering making its geospatial data free and openly available in the near future?**

#	Answer	%	Count
1	Yes	11.11%	3
2	No	11.11%	3
3	Maybe	22.22%	6
4	Not sure	55.56%	15
	Total	100%	27

**Q22 - What concerns does your city have about making its geospatial data free and openly available? (check all that apply) N=22**

#	Answer	%	Count
1	Concerns over loss of revenue from the sale of data	2.04%	1
2	Concerns over legal liability for the geospatial data we produce	20.41%	10
3	Concerns over not knowing who is requesting or receiving the data	14.29%	7
4	Concerns over 'bad actors' acquiring and misusing the data	16.33%	8
5	Concerns over privacy and/or security	24.49%	12
6	Ability to redact or remove certain attributes before making data available	12.24%	6
7	Other (please describe)	10.20%	5
	Total	100%	49

Other (please describe)

We work with County for all this so I'm not sure how to reply.

Limited data requests = not a priority

None

No concerns. Just have not yet made it a priority. Open data is governed by another team.

**Q23 - What city are you are completing this survey for?**

Adrian

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Arden Hills

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Becker

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Blaine

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Breezy Point

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Brooklyn Park

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Centerville

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Chatfield

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Chatfield

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Crystal

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Dennison

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Duluth

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Eagan

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Erhard

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Fergus Falls

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Graceville

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Grand Marais

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Hayfield

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Lakeville

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Lauderdale

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LOGIS

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Maple Grove

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Minneapolis

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Minnetonka

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Moorhead

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Morton

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New York Mills

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Newport

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Osseo

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Owatonna

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Plymouth

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Ramsey

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Richfield

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Rosemount

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Roseville

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Saint Paul

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Sherburn

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Stockton

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Victoria

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Virginia

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Wabasha

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Waseca

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Willmar

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Woodbury

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Wyoming

**Q24 - OPTIONAL What is your job title?**

#	Answer	%	Count
1	Administrator/Clerk/Finance	25.0%	10
2	City Planner/Zoning	12.5%	5
3	Consultant	5.0%	2
4	GIS Analyst/Specialist	15.0%	6
5	GIS Manager/Supervisor/Coordinator	30.0%	12
6	Public Works/Engineering	12.5%	5
	Total	100%	40

**Q25 - Any additional comments?**

We are in the process of putting a geospatial work plan together, basically starting from square one, and hope to start collecting data this spring. Right now, we utilize paper maps and as built drawings created by staff and engineering firms.

We have had an outside consultant provide our GIS in the past few years. We are just getting back into creating, maintaining and making available our own data.

At one time we had an Associate Planner that was very knowledgeable in GIS and created maps, etc. He is no longer here so we use the County GIS maps to help people's questions on properties, addresses, etc.

We use layers through the County website, though lines for parcels are not 100% accurate, it does give us the gist of where!

State IT issues, lag times, and prolonged roll-outs have increased since the MN.IT consolidation. Examples include the Crash Mapping Analysis Tool, and even a simple boundary update with BWSR is taking more than a month to complete. It doesn't look good in the paper and small-governmentalists will complain, but if we want government to act like business and we need that business to thrive, we have to put the capital into that business. MN.IT, from where I stand, has become a big funnel and is not providing better service than before the consolidation. Streamline and improve or break apart into departments.

The GIS division wants to adopt an official policy to ensure our data continues to be free and open.