



Data Standards

Status and Development

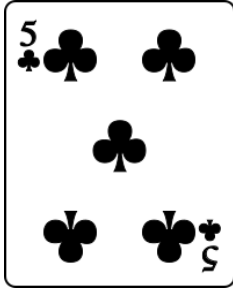
Presentation to the

Southeast Minnesota GIS Users Group

June 20, 2017



Geoff Maas, GISP
MetroGIS Coordinator
Metropolitan Council, St. Paul, Minnesota



Five Things:

What is MetroGIS?

Why a *regional* approach?

Current projects (Need for standards)

Data Standards (Who, What and Why?)

Free + Open Data Update



What Is MetroGIS?

What Is MetroGIS?

Voluntary collaborative of interests...



- Governments at all levels
- Academia
- Non-Profit
- Private Sector

*...who **produce, consume** and **share** GIS data in the Twin Cities metro region.*

What does it do?



Maintenance Functions

Regional dataset maintenance;

Manage the licensing and distribution of vendor data;

*Maintain the **metrogis.org** website*

*On-going **governance***



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Projects & Research

*Development of **data + data standards** as dictated by stakeholders;*

***Research** into issues of importance to the stakeholders;*

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Projects & Research

*Development of **data + data standards** as dictated by stakeholders;*
***Research** into issues of importance to the stakeholders;*



Advocacy & Outreach

***Promotion** and **facilitation of data sharing** in the region;*
*Tracking of **legislation** impacting anything related to geospatial;*
***Liaison** between agencies engaged in GIS in the region;*

MetroGIS



February 8, 1996
Metropolitan Council



- Financial and functional backing;
- Funding for projects;
- 1 FTE;
- Administrative oversight and support;
- Stable base of operations;

COUNTY GOVERNMENTS

Anoka County

Carver County

Dakota County

Hennepin County

Ramsey County

Scott County

Washington County

Policy Board

Coordinating Committee

Technical
Advisory
Team

Work
Groups

- > Data Producers
- > Addressing
- > Centerlines

MetroGIS

REGIONAL AGENCIES

Metropolitan Airports
Commission

Metropolitan Mosquito
Control District

Metropolitan Emergency
Services Board

Watershed Districts

Metropolitan Council

Fiduciary and administrative
oversight of MetroGIS

Public School Districts

Academic Institutions

Non-Profit Organizations

Private Businesses

Utilities

General Public

PUBLIC & PRIVATE SECTORS

Cities

State Government

Federal Government

LOCAL, STATE & FEDERAL GOVERNMENT

Minnesota
Geospatial
Information
Office

Minnesota
GIS/LIS
Consortium

National Spatial
Data Infrastructure

National Geospatial
Advisory Committee

Federal Geographic
Data Committee

AFFILIATIONS



MetroGIS Policy Board

Metro Cities (2 mayors)

Each metro county sends a delegate:

- *County Commissioner*
- *IT Director*
- *Chief Information Officer (CIO)*

Metro Watershed District Board Member

Metropolitan Council Councilperson



An aerial photograph showing a residential neighborhood. A large, irregularly shaped pond is visible in the upper left. A winding road runs through the center. In the lower right, there is a school building with a green roof and a playground area. The surrounding area is densely packed with houses and trees.

Each metro county sends a delegate:

-
- A group of people are seated around a large conference table in a room with wood-paneled walls. An American flag and another flag are visible in the background. A man stands at the front of the room, gesturing towards a large projection screen. The screen displays a slide titled "Background" with the following bullet points:
- Policy Board meeting - Jan 23
 - County Data Producer Workshop & Review Conference and data needs analysis production session - June 2011
 - Coordinating Committee - March 22
 - Policy Board Committee - June 14
 - Policy Board meeting

Metropolitan Council Councilperson



Hennepin County Commissioner



Board Chair, Metro Chapter

Minnesota Association of Watershed Districts



Coordinating Committee

County Government	(7 seats)
Metropolitan Council	(1 seat)
Metropolitan Airports Commission	(1 seat)
Metropolitan Mosquito Control Board	(1 seat)
Metropolitan Emergency Services Board	(1 seat)
School Districts	(1 seat)
Watershed Districts	(1 seat)
Municipal Government	(5 seats)
Private Sector – Business Geographics	(2 seats)
Private Sector – Utilities Sector	(1 seat)
Private Sector – Real Estate	(1 seat)
Non-Profit Sector	(2 seat)
Academia	(2 seat)
 <u>State Government:</u>	
Department of Transportation (MnDOT)	(1 seat)
Department of Natural Resources (MnDNR)	(1 seat)
Minnesota Geospatial Information Office (MnGeo)	(1 seat)
 <u>Federal Government:</u>	 (1 seat)

Annual Work Plan

Project priorities are
driven by the Annual
Work Plan

metrogis.org

> Projects

>> Work Plan + Budget

Revised each year based
on Committee input;



Approved by the MetroGIS Coordinating Committee
January 12, 2017

MetroGIS
390 Robert Street North
St Paul, Minnesota 55101
www.metrogis.org

[About MetroGIS](#)[Get Data](#)[How Do I Get...?](#)[Projects](#)[Teams + Governance](#)[Why MetroGIS Matters](#)[Affiliations](#)[Archives](#)

Welcome to MetroGIS

MetroGIS is an award-winning, regional geographic information systems initiative serving Minnesota's Minneapolis-St Paul metropolitan area. It provides a regional forum to promote and facilitate widespread sharing of geospatial data.

MetroGIS is a voluntary collaboration of local and regional governments, with partners in state and federal government, academic institutions, non-profit organizations and the business community.

Mission and Goal

MetroGIS exists to expand stakeholders' capacity to address shared GIS needs and to maximize investments through the collaboration of organizations serving the Twin Cities metropolitan area.

The goal of MetroGIS is for organizations to be successfully working together using GIS to solve real-world problems.

MetroGIS's Purpose

The purpose of MetroGIS is to institutionalize the sharing of accurate and reliable geospatial data so user and producer communities can share in the efficiencies of being able to effortlessly obtain the data they need, in the form they need, when they need it.

News and Events

Coordinating Committee Meeting

Jun 08, 2017, 1:00 PM 3:30 PM
Metro County Gov Center
2099 University Ave, St Paul, MN
55104

[Minutes](#)

Annual Policy Board Meeting

Apr 26, 2017, 7:00 PM 9:00 PM
Metro County Gov Center
2099 University Avenue, St Paul

[Minutes](#)

Coordinating Committee

Jan 12, 2017, 1:00 PM 3:30 PM
Metro County Gov Center
2099 University Avenue, St Paul

[Minutes](#)

Policy Board - Year End Notice

Dec 23, 2016, 12:00 AM

[Update](#)

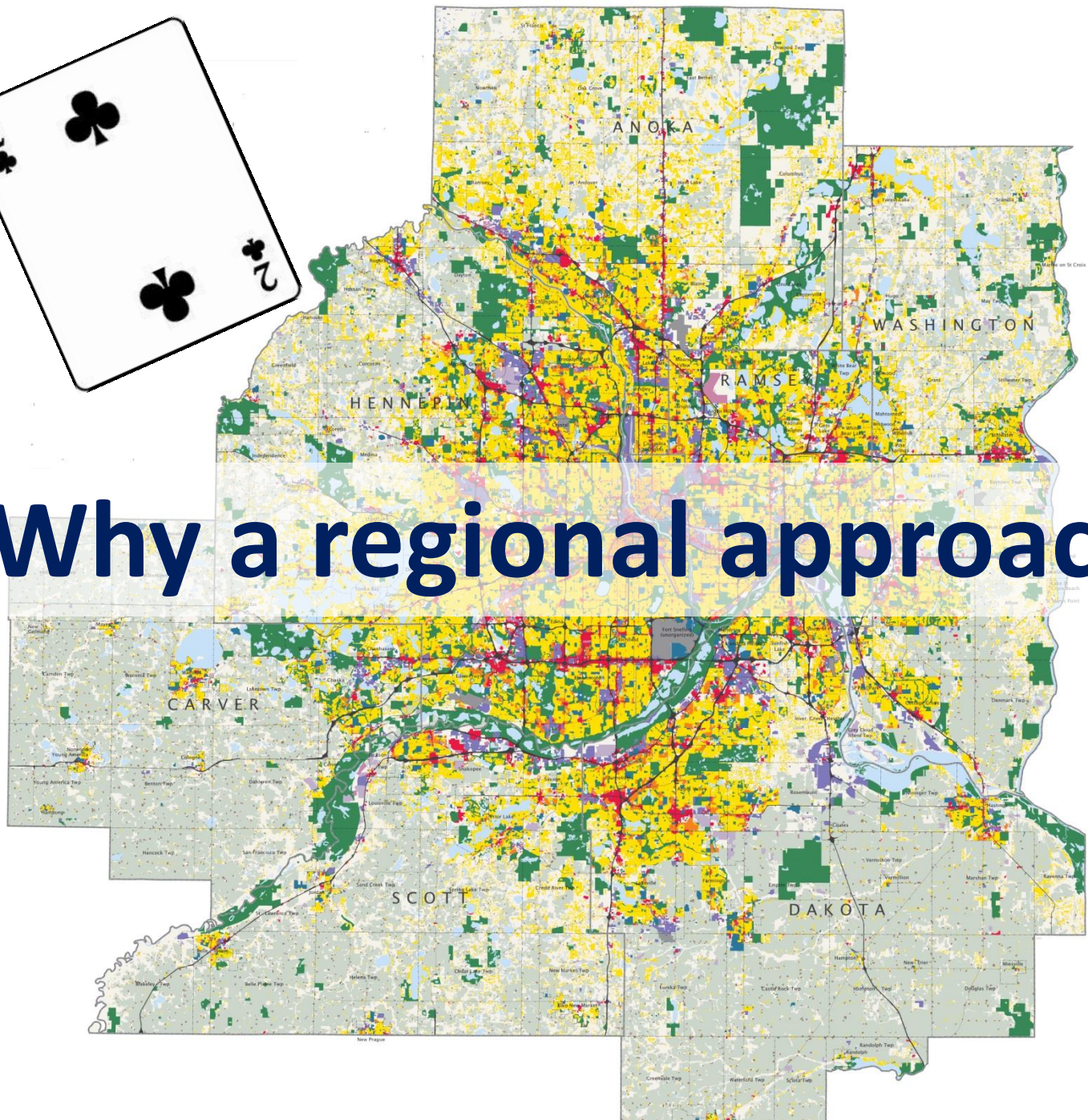
Coordinating Committee

Oct 13, 2016, 1:00 PM 3:30 PM
Metro County Gov Center
2099 University Avenue, St Paul

[Minutes](#)



Why a regional approach?



The Regional Approach...

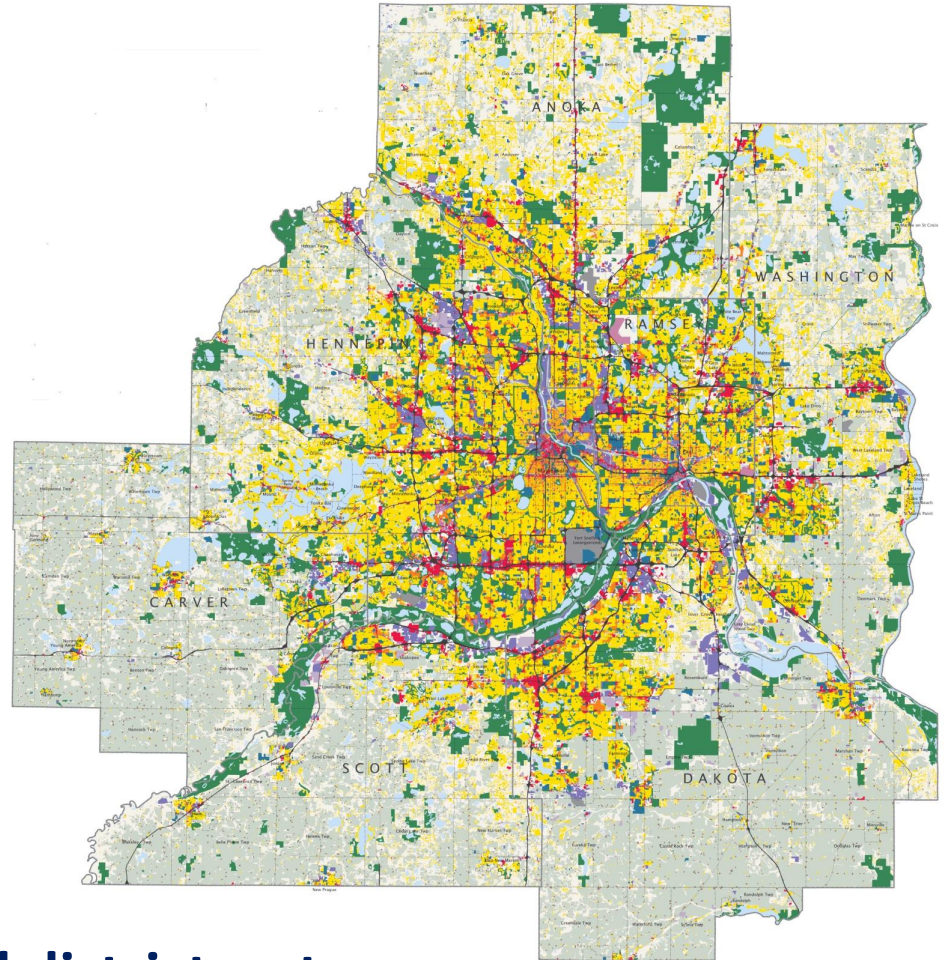
Many agencies whose work and data needs transcend established boundaries.

Emergency Services

Recycling & Waste

Regional, State & Federal governments

Watersheds and school districts, etc.



The Regional Approach...

Metropolitan Airports Commission (§473)

Metropolitan Mosquito Control District (JPA; later §473)

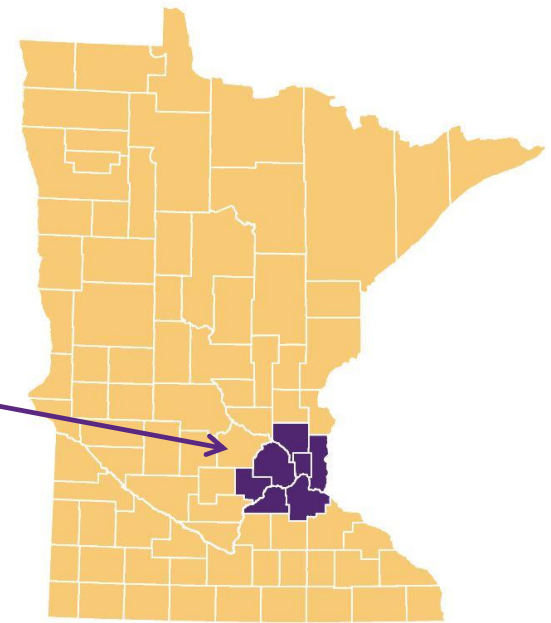
Metropolitan Council (§473)

Metropolitan Emergency Services Board (JPA)

Watershed Districts & Management Organizations (§103D)

School Districts (§123B)

**54% of Minnesota's
population resides in the
Seven Metropolitan Counties**



State Population:

5,303,925 (2010 Census)

5,554,532 (State Demographer's office, 2017)

Metropolitan Council

Created by Legislature in 1967



Environmental Services

Water quality, water supply & wastewater treatment

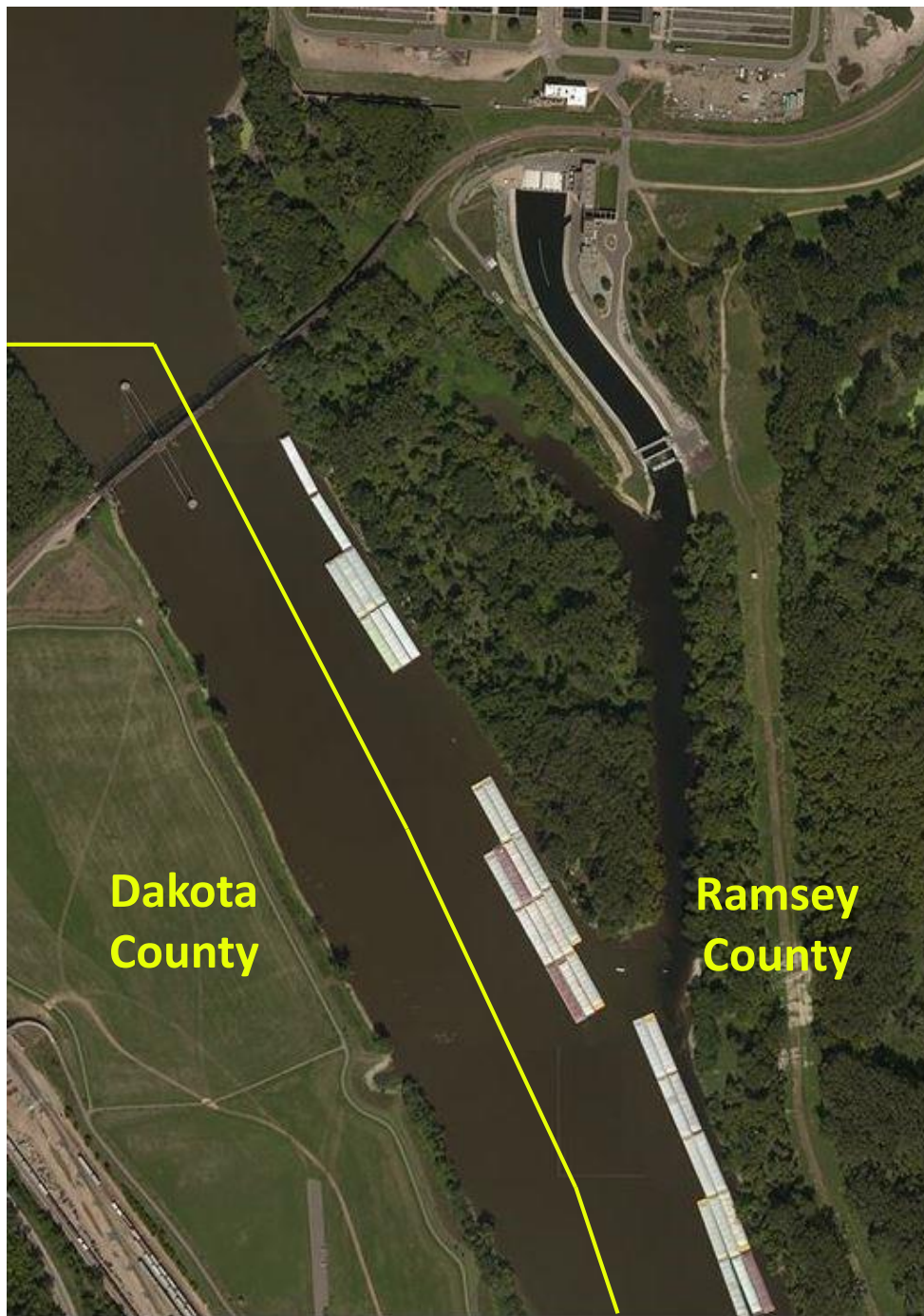
Metro Transit

*MetroTransit, MetroTransit Services
Metro Transit Police Department
Bus and light rail transit services*

Community Development

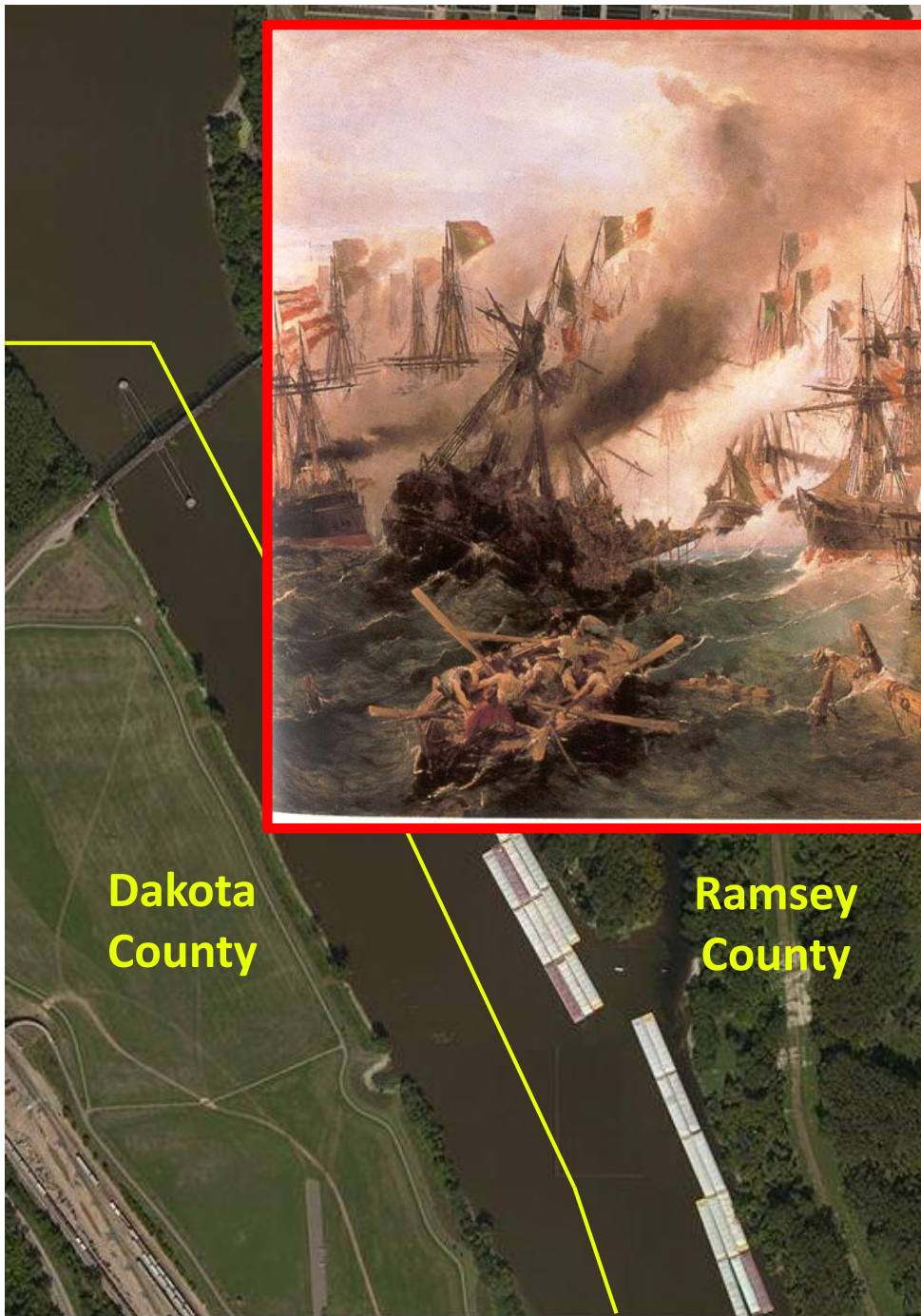
*Regional Framework Plans
Aviation/Transportation Planning
Regional Park and Trail System
Affordable Housing supply
Municipal Urban Services Area*





**Dakota
County**

**Ramsey
County**

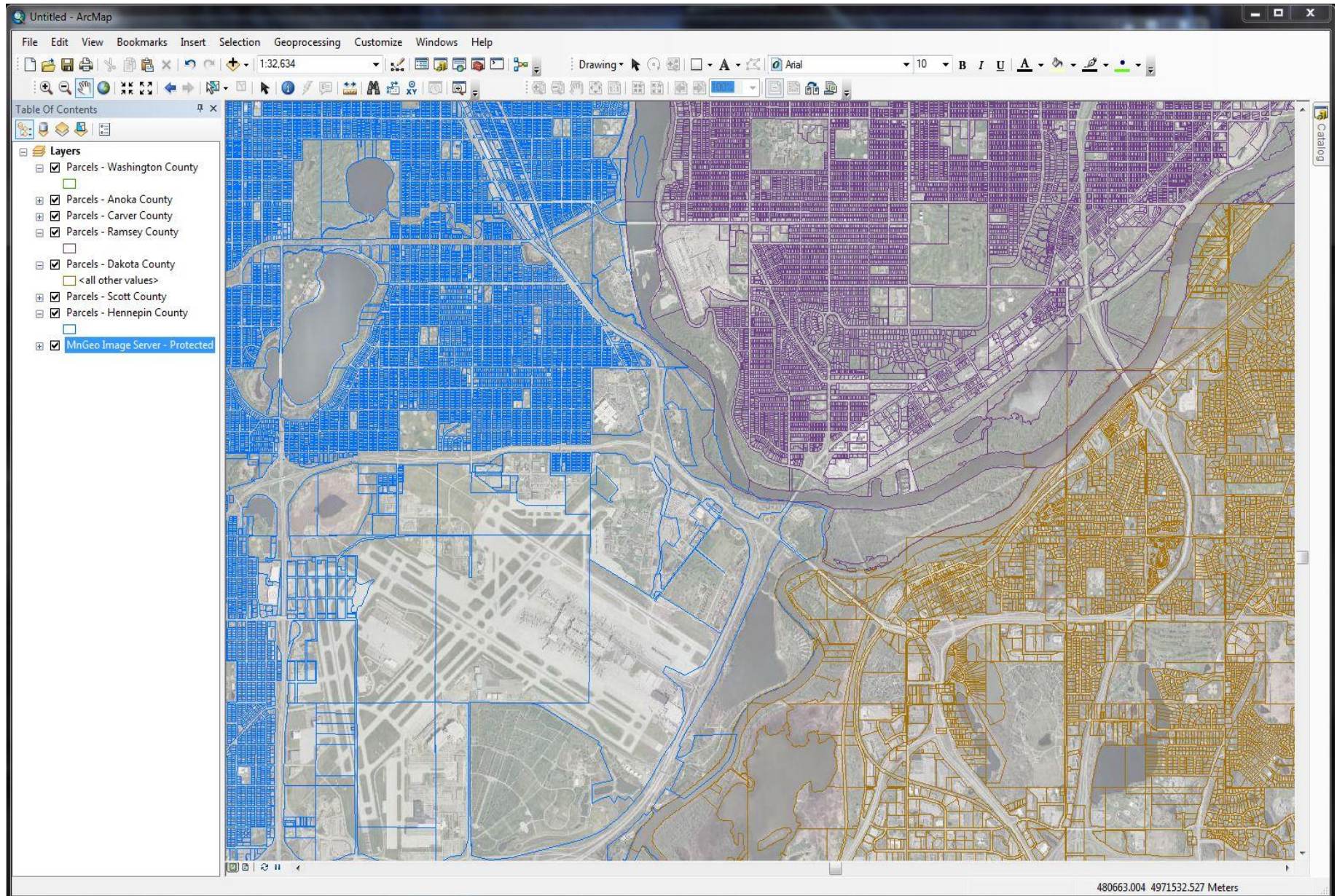


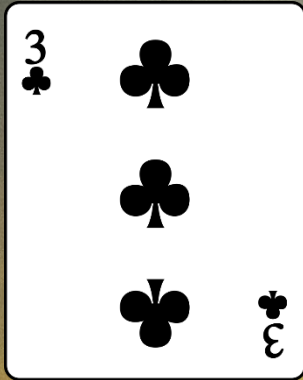
**Dakota
County**

**Ramsey
County**

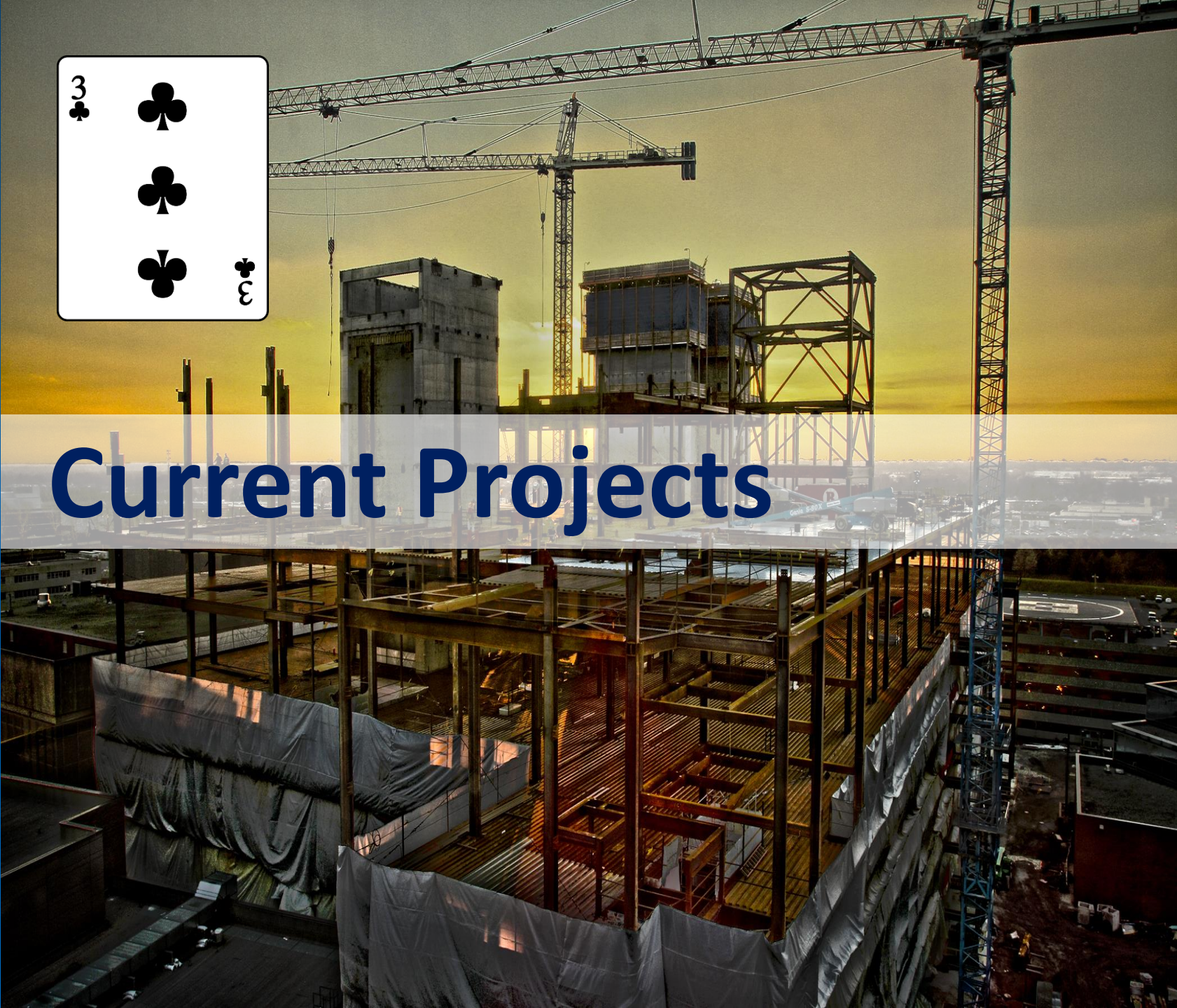


“Sharing Information Across Boundaries”





Current Projects





Current Project Priorities

Creation + Aggregation of:

- **Address Point Data**
- Road Centerline Data
- Park and Trail System Data
- Stormwater System Data



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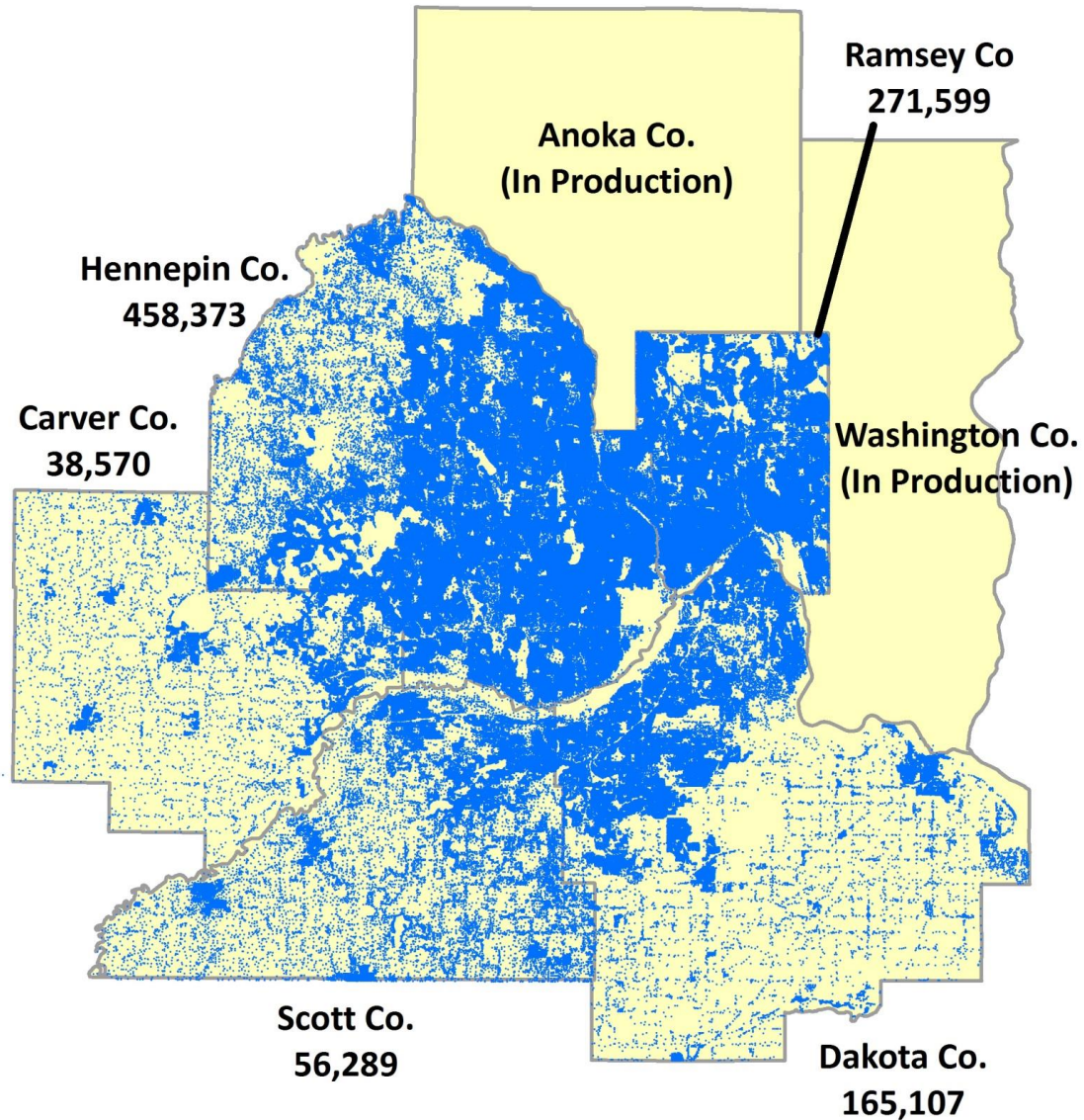


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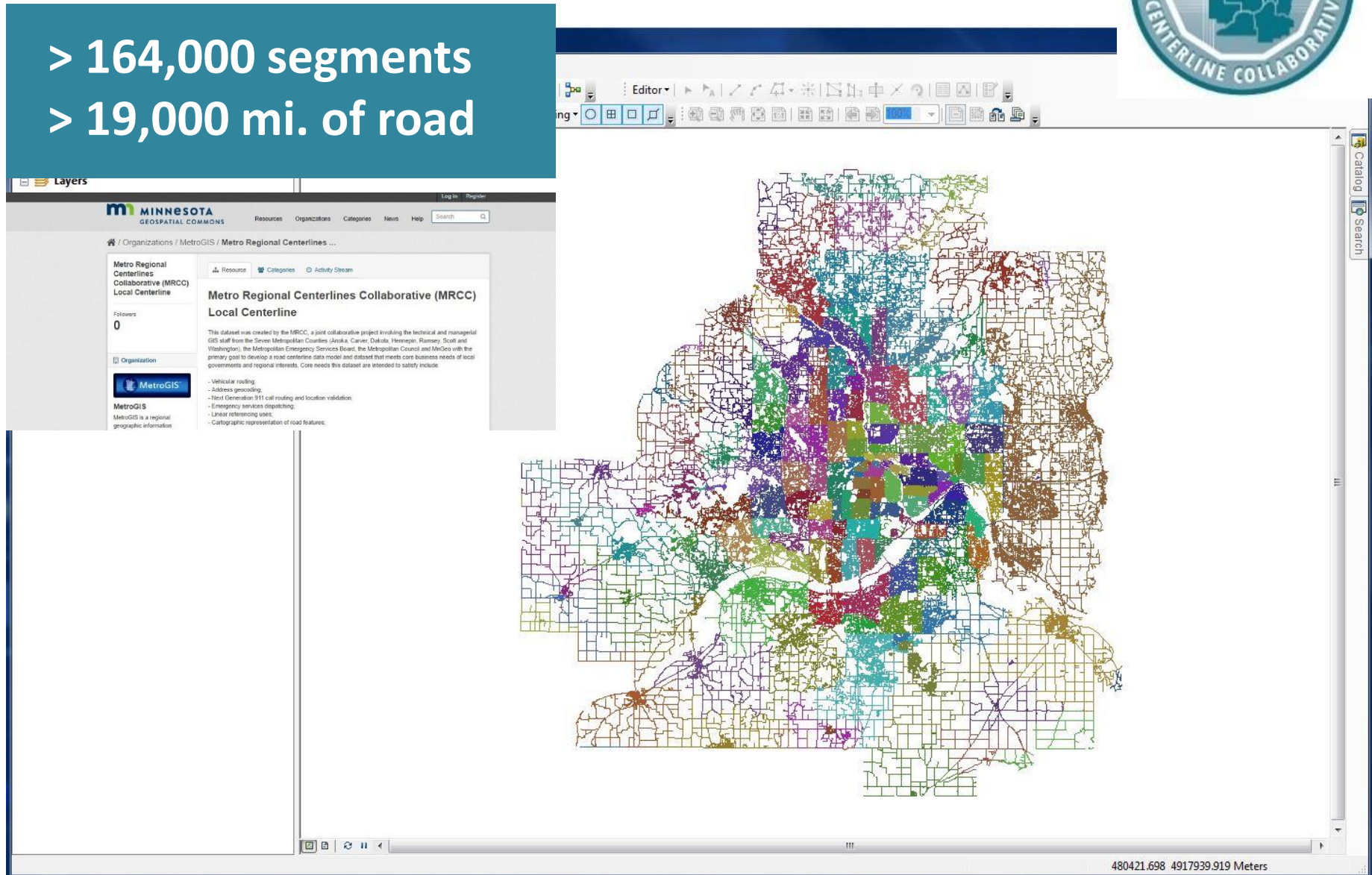
Address Point Data



Road Centerlines



> 164,000 segments
> 19,000 mi. of road



Road Centerlines

Plan to update monthly

[Resources](#)[Organizations](#)[Categories](#)[News](#)[Help](#)[Log in](#)[Register](#)

[Home](#) / [Organizations](#) / [MetroGIS](#) / **Metro Regional Centerlines ...**

Metro Regional Centerlines Collaborative (MRCC) Local Centerline

Followers

0

 Organization



MetroGIS

MetroGIS is a regional geographic information

 Resource

 Categories

 Activity Stream

Metro Regional Centerlines Collaborative (MRCC) Local Centerline

This dataset was created by the MRCC, a joint collaborative project involving the technical and managerial GIS staff from the Seven Metropolitan Counties (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington), the Metropolitan Emergency Services Board, the Metropolitan Council and MnGeo with the primary goal to develop a road centerline data model and dataset that meets core business needs of local governments and regional interests. Core needs this dataset are intended to satisfy include:

- Vehicular routing;
- Address geocoding;
- Next Generation 911 call routing and location validation;
- Emergency services dispatching;
- Linear referencing uses;
- Cartographic representation of road features;

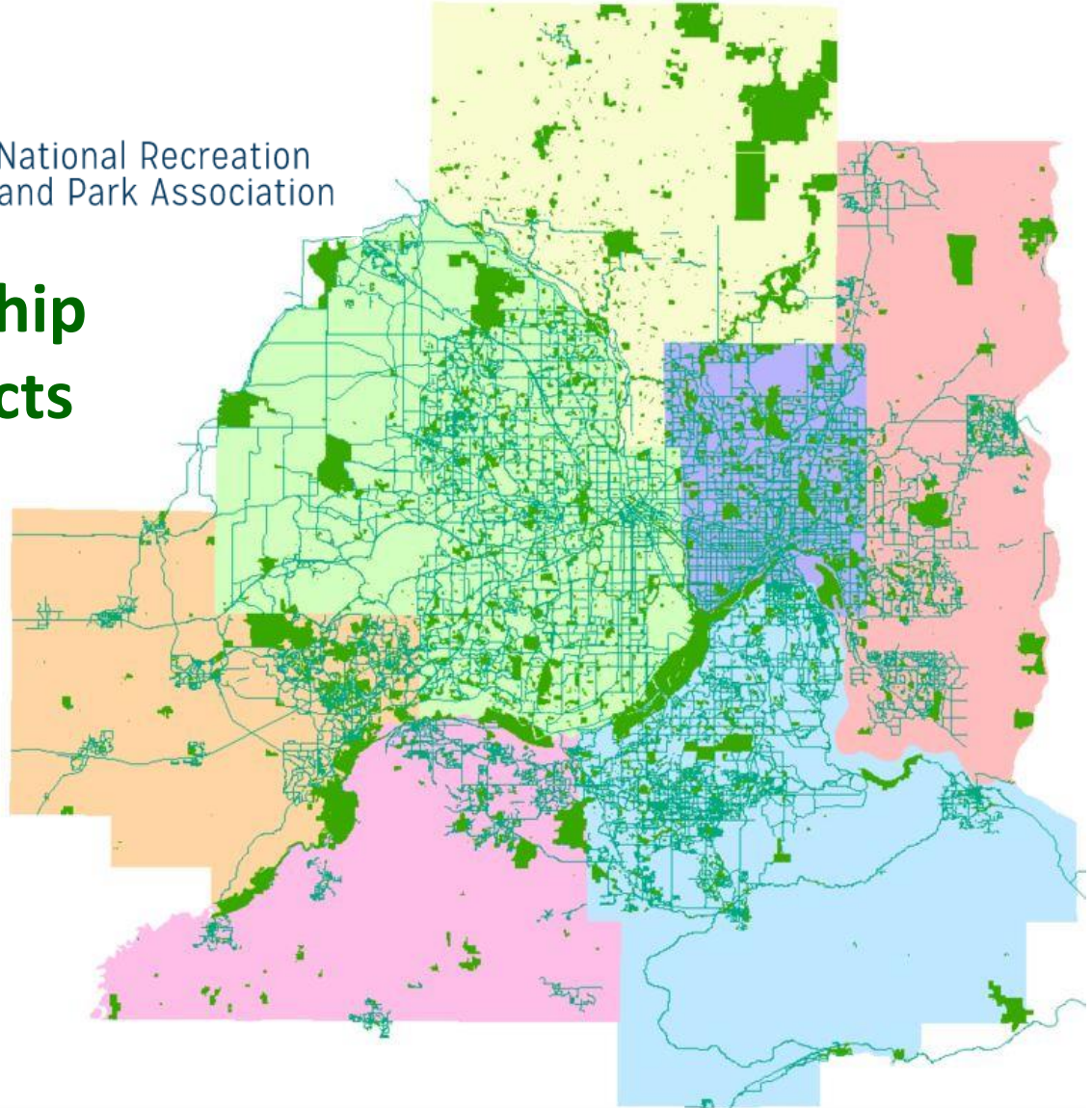
Park and Trail Data



NRPA

National Recreation
and Park Association

City & Township
Special Districts
County
Regional
State
Federal





Stormwater System Data

Cities

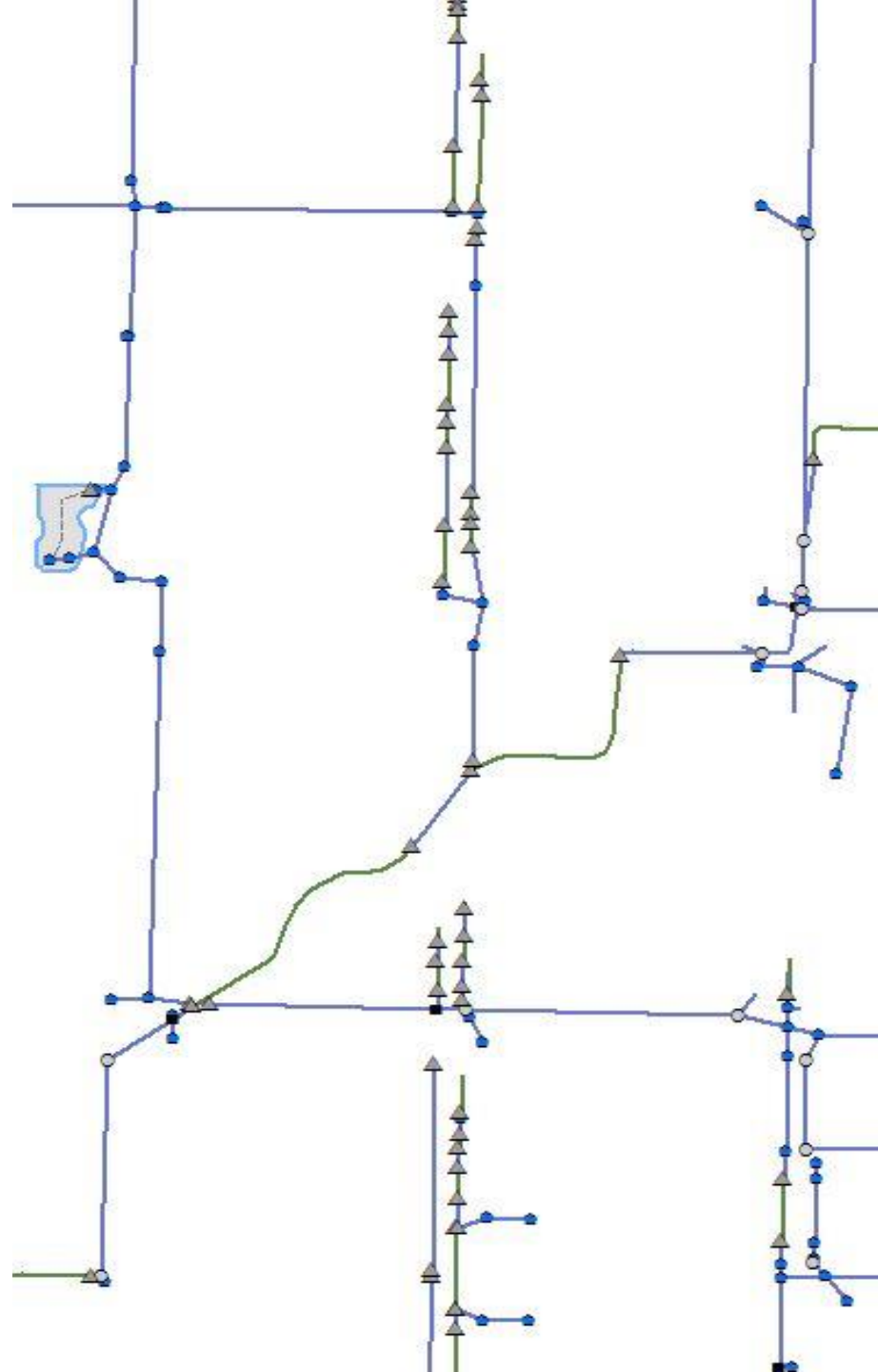
County (public works)


MnDOT

Other public systems

Private systems

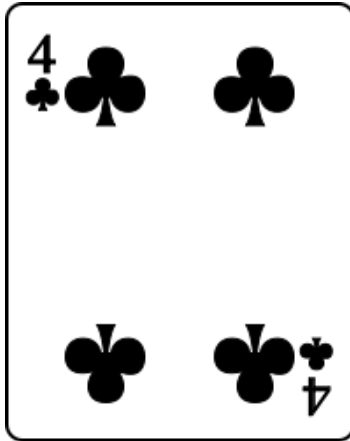
*Documenting the
Various business needs*





Address Point Data
Road Centerline Data
Park and Trail System Data
Stormwater System Data

Developing agreed upon
standards for each dataset



Data Standards



Standards

Standards are an important *resource*:

Importance of stakeholder input:

- >> Satisfy shared business needs
- >> Wider usage by the stakeholder community
- >> Stakeholder 'ownership'



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Standards

What standards ***aren't***:

*A directive on how an agency **creates, stores or maintains** its data internally;*

What standards ***are***:

Standards are a resource to:

Facilitate the transfer of data between agencies

Facilitate the aggregation of data from many agencies

Facilitate shared terminology

Facilitate more effective communication



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Facilitate more *effective communication*

Current status of Standards in Minnesota



Standards in Minnesota

http://www.mngeo.state.mn.us/committee/standards/standards_adopted_devel.html



About MnGeo Coordination Data Services Web Services Consulting Services Training Quick Links Other Resources

Search

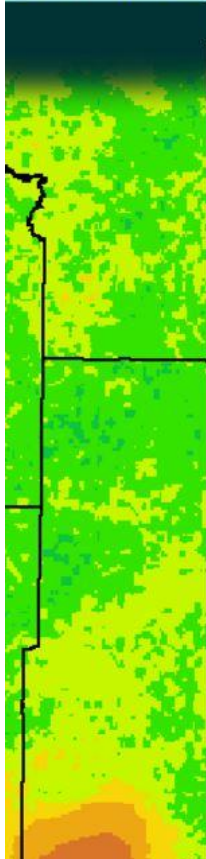
Geospatial Standards

- [State of Minnesota Geospatial Standards](#)
- [National Geospatial Standards](#)

State of Minnesota Geospatial Standards

Adopted State Standards

[Overview](#) of all the standards in the table below



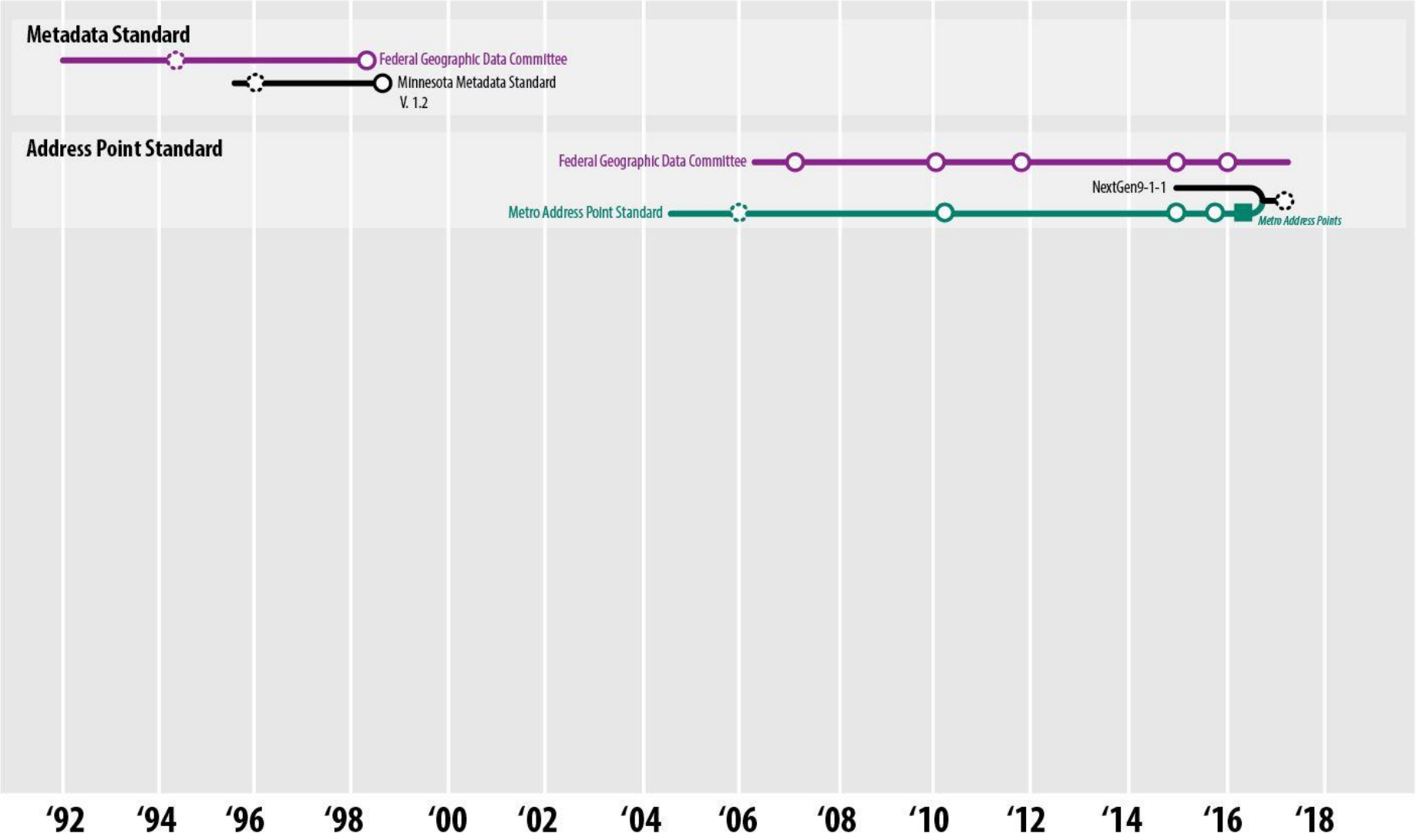


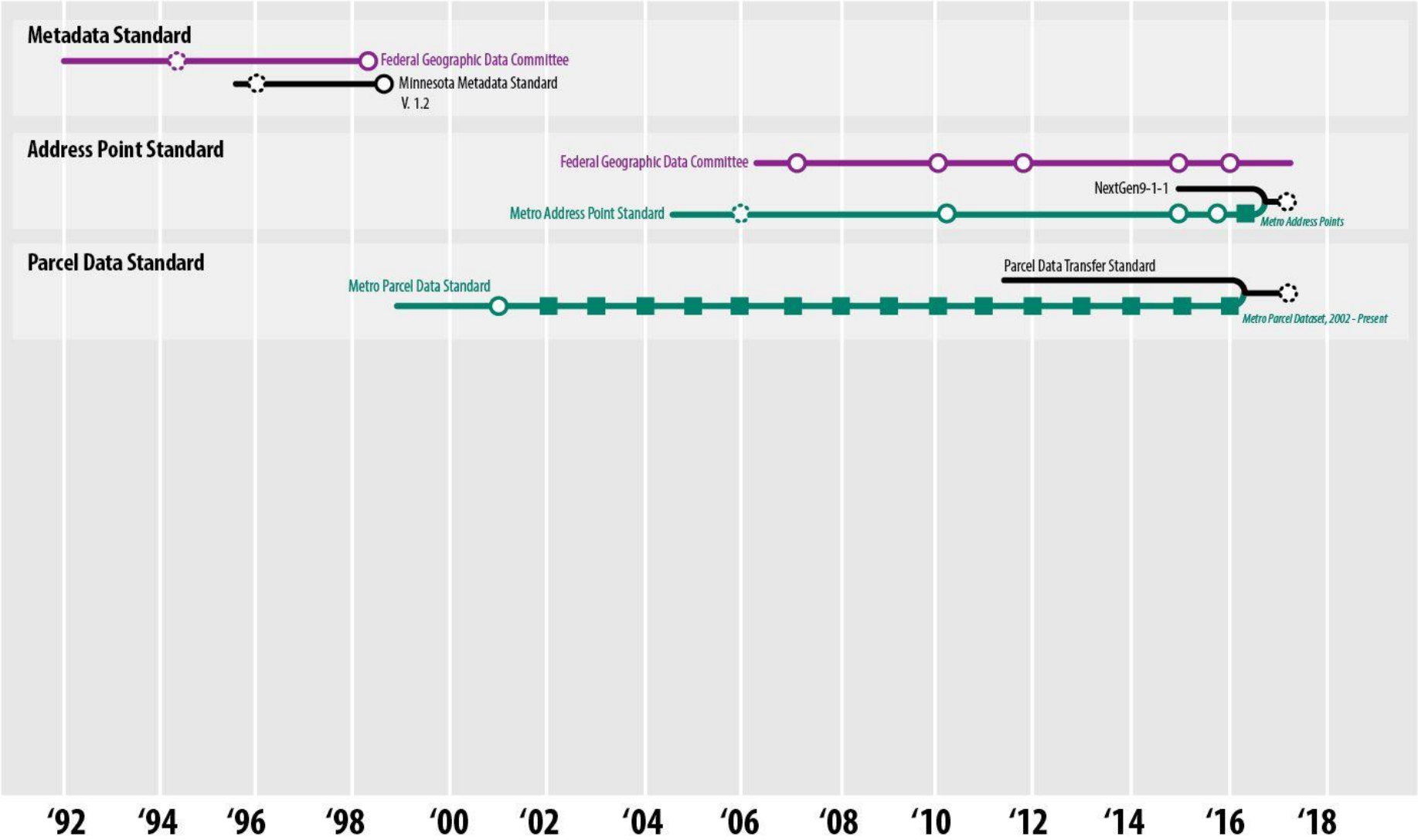
A map of Minnesota with a green and yellow color scheme, overlaid with a black outline of the state. The map is surrounded by various geospatial tools including a compass, a ruler, and a protractor.

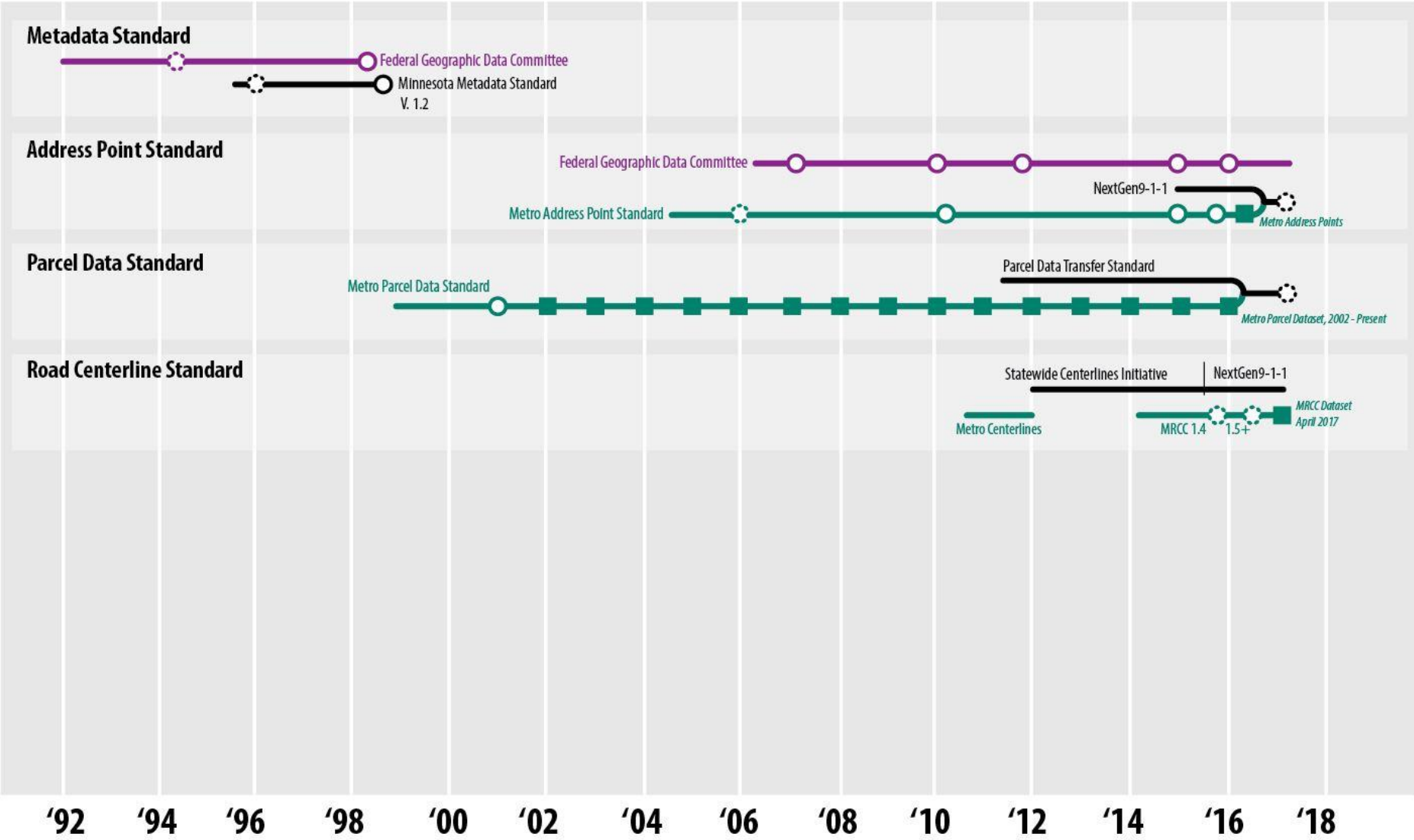
Name of Standard	Additional Resources
Codes Identifying States	
Codes Identifying Counties in Minnesota	
Codes Identifying Cities, Townships and Unorganized Territories (CTUs) in Minnesota	CTU list with a crosswalk to legacy Census codes
Coordinate Interchange Standard for State Agencies	
Measuring and Reporting Positional Accuracy in Spatial Data	Positional Accuracy Handbook : Using the national standard for spatial data accuracy to measure and report geographic data quality
Minnesota Geographic Metadata Guidelines	<ul style="list-style-type: none">• Detailed description of the guidelines• Metadata help
Codes Identifying Reaches and Watercourses	

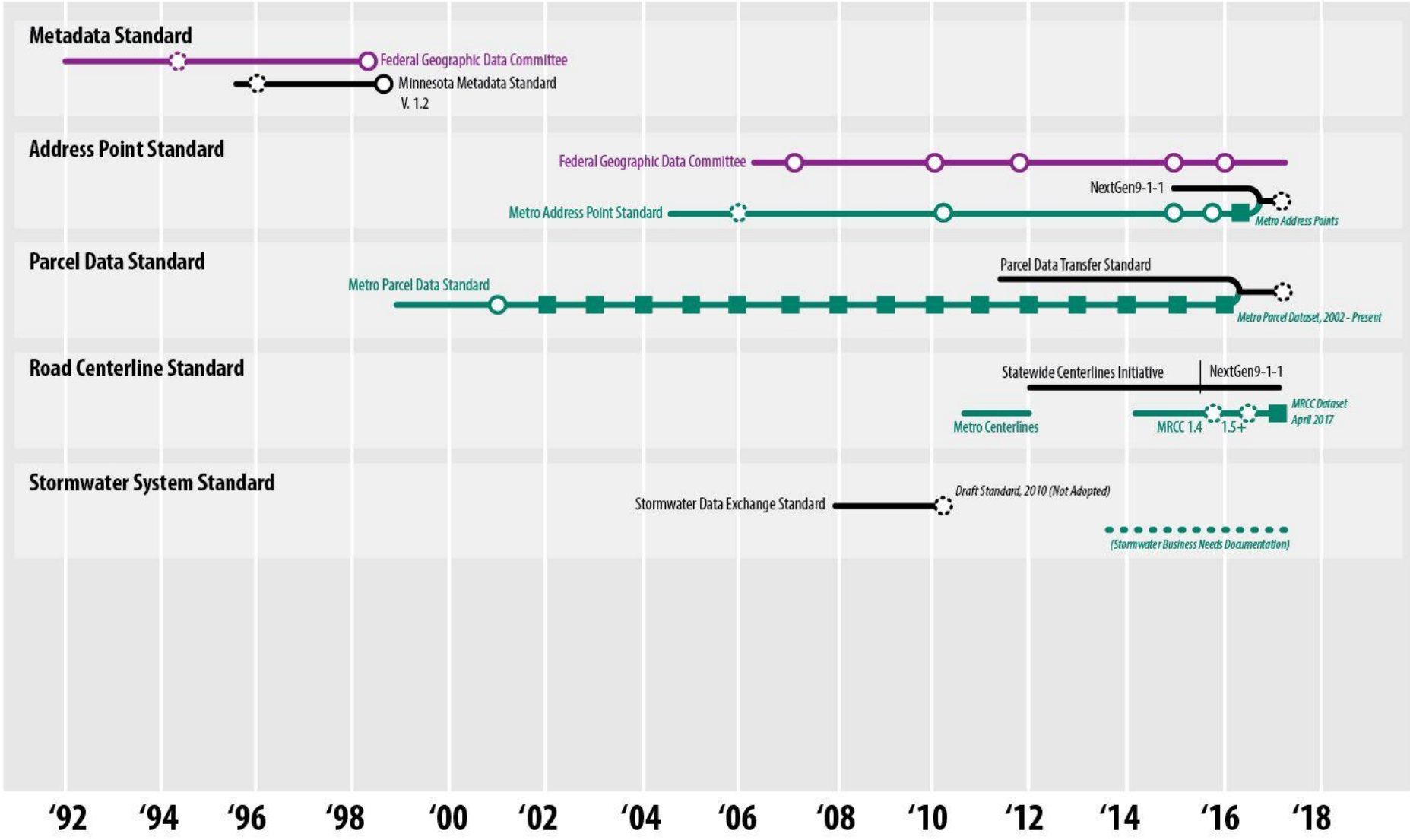
Metadata Standard

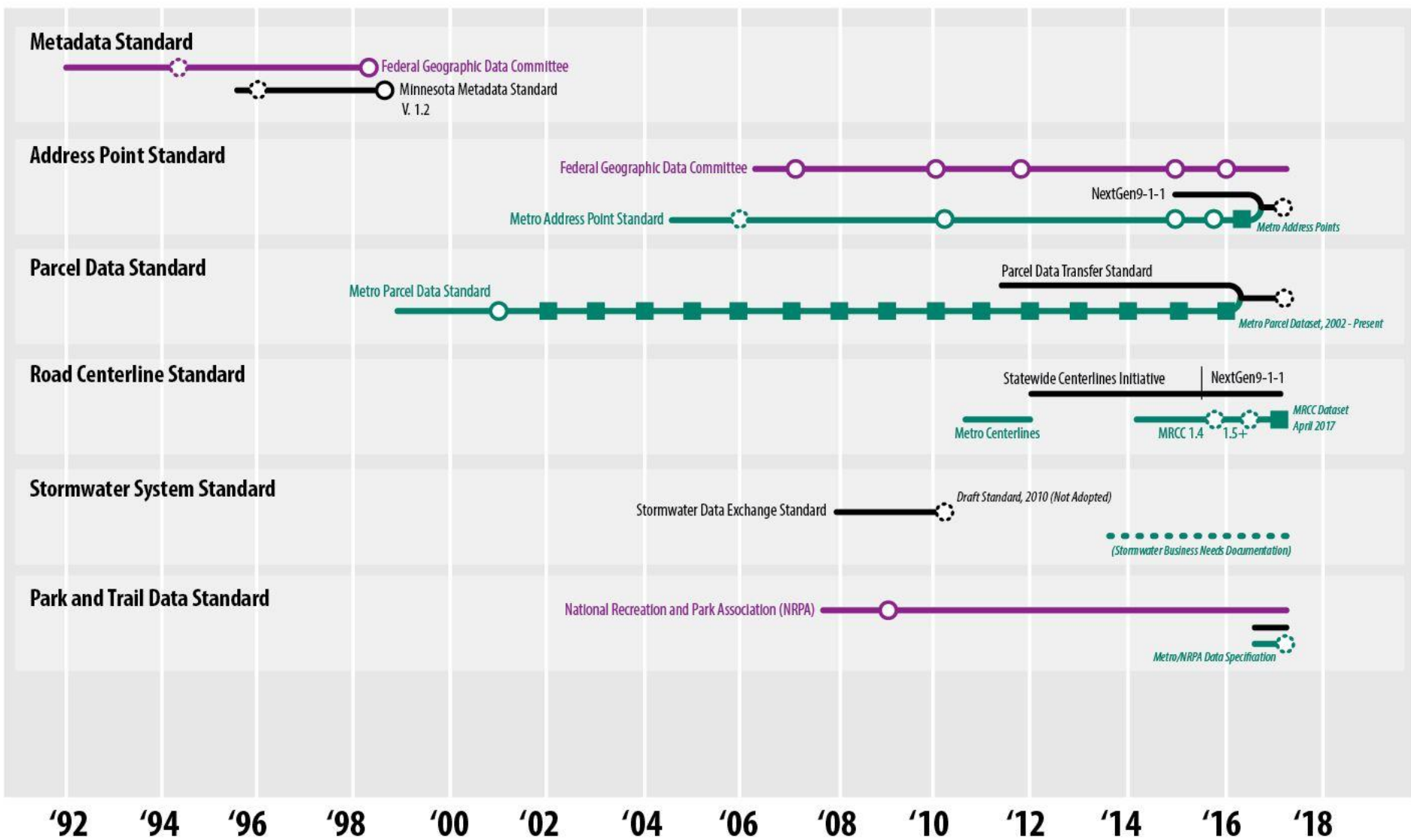












Metadata Standard



Address Point Standard



Parcel Data Standard



Road Centerline Standard



Stormwater System Standard



Park and Trail Data Standard



Damage Assessment Data Standard



'92 '94 '96 '98 '00 '02 '04 '06 '08 '10 '12 '14 '16 '18

Standards Development Process

Business need for a standard

Determine if others share the need

Existing standards exist as resource?

Develop a draft standard

Stakeholder review + input

Review of input by committee(s)

Determination:

- Approval

- Revision and approval

- Revision and more input

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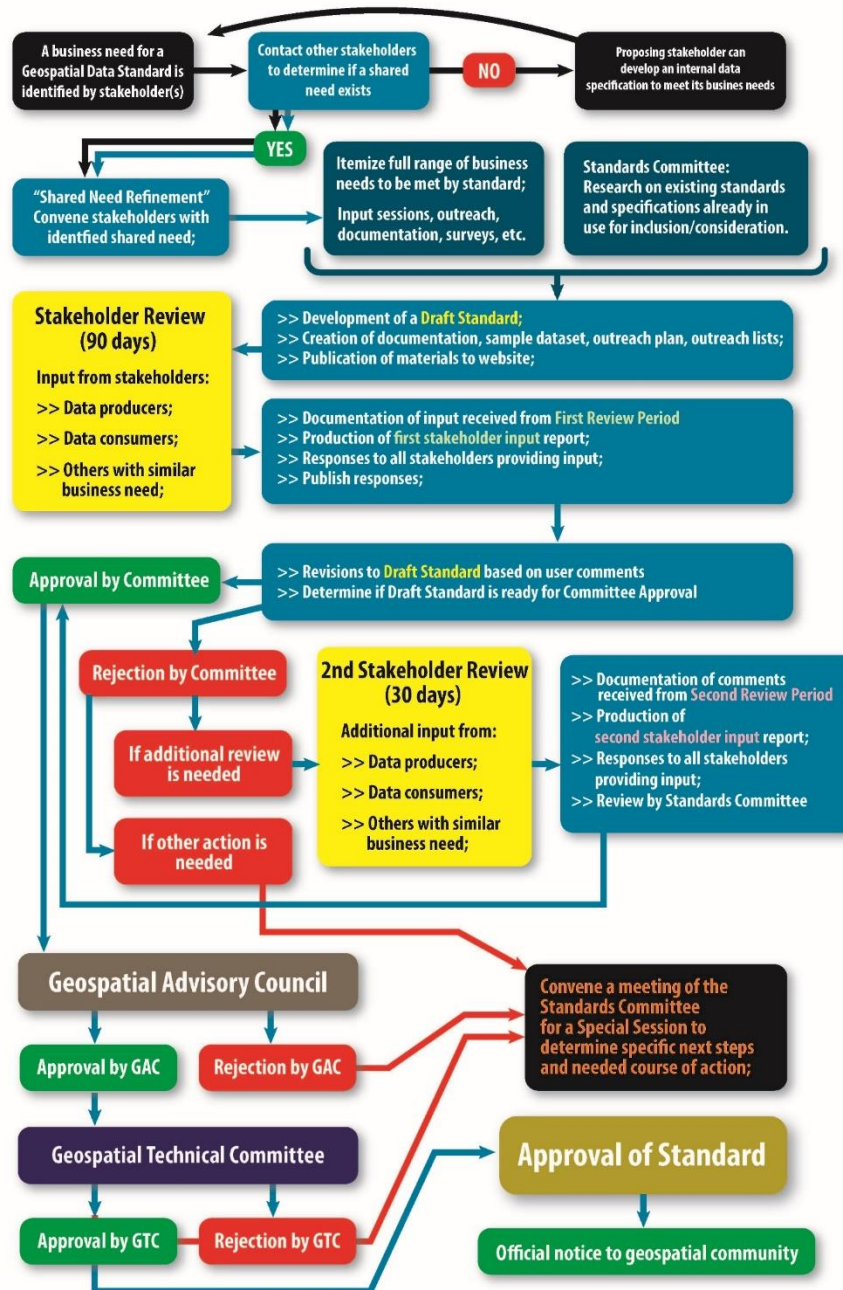
Determination:

Approval (to GAC for approval)

Revision and approval

Revision and more input

(Generalized) Standards Development Flow Chart (Draft Version 1.2)



Standards Development Process (V. 1.2)

Documentation:

- Excel (w/domains)
- FAQ document
- Sample dataset(s)
- Other supporting materials



Geospatial Advisory Committee

Standards Committee

Advisory role

Review all candidate standards;

Oversee and assist with stakeholder review process;

Recommend for approval to GAC;

Recommend approval upon conditions;

Recommend revision and another comment period;

Reject the proposal;

What's on the horizon...?



Parcel Data Transfer Standard

Oct 2016 – Jan 2017: Formal review

Feb-Mar 2017: Publication of comments



Significant public comment received:

- *Re-arrangement/re-naming of attributes*
- *Addition of more attributes*
- *Question the need for so many attributes*
- *Align with other standards contents*

Parcel and Land Records Committee:

ON HOLD pending the Address Point Standard

Parcel Data Transfer Standard



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Parcel Data Transfer Standard

Working Draft



	A	B	C	D	E	F	G	H	I
1	MN Parcel Data Transfer Standard (Working Draft, April-May, 2017)								
2	Element Category	Element Number	Attribute	Description	Type	Length	Origin	Domain	Example(s) and/or Notes
3	Identification Elements	1.1	OBJECT_ID	<default attribute>	<default>	<default>	<default>	<na>	
4		1.2	COUNTY_ID	Three character county ANSI (FIPS) Code	Text	3	County ANSI/FIPS	COUNTY_ID	Aitkin County = 001, Anoka County = 003, etc.
5		1.3	COUNTY_PIN	Unique parcel identification number in use by County	Text	28	Tax system	<na>	29-0-055902
6		1.4	STATE_PIN	Concatenation of COUNTY_ID, -, COUNTY_PIN	Text	32	Concatenation of other attr	<na>	001-29-0-055902
7	Confirmation of Address Elements in the Parcel Data Transfer Standard is pending the review, approval and incorporation of the attributes from the forthcoming MN Address Point Standard								
8	Address Elements	2.1	BLDG_NUM	Subject to change based on Address Point Standard					
9		2.2	PREFIX_DIR	Subject to change based on Address Point Standard				Domain >>	Domain of directions (North, Northeast, East, Southeast, South, etc.)
10		2.3	PREFIXTYPE	Subject to change based on Address Point Standard					
11		2.4	STREETNAME	Subject to change based on Address Point Standard					
12		2.5	STREETTYPE	Subject to change based on Address Point Standard				Domain >>	Domain of street types from USPS
13		2.6	SUFFIXDIR	Subject to change based on Address Point Standard				Domain >>	Domain of directions (North, Northeast, East, Southeast, South, etc.)
14		2.7	UNIT_INFO	Subject to change based on Address Point Standard					
15		2.8	CITY	Subject to change based on Address Point Standard				Domain >>	Domain of City Values
16		2.9	CITY_USPS	Subject to change based on Address Point Standard				Domain >>	Domain of Postal Community Values
17		2.10	ZIP	Subject to change based on Address Point Standard					
18		2.11	ZIP+4	Subject to change based on Address Point Standard					
19	Tax and Survey Elements	3.1	LOT	Lot	Text	30	Tax System	<na>	7, LOT 7, OUTLOT A, PARCEL A-LOT 7
20		3.2	BLOCK	Block	Text	30	Tax System	<na>	13, BLOCK 13
21		3.3	PLAT_NAME	Plat Name	Text	100-150 (?)	Tax System	<na>	EAST SIDE ADDITION TO MINNEAPOLIS
22		3.4	OWNER_NAME	Owner name	Text	100	Tax System	<na>	WINDOM, WILLIAM H or WILLIAM H WINDOM ET UX
23		3.5	OWNER_MORE	Additional owner name	Text	100	Tax System	<na>	
24		3.6	OWN_ADD_L1	Mailing address of owner, line 1	Text	100	Tax System	<na>	2204 FILLMORE STREET NE
25		3.7	OWN_ADD_L2	Mailing address of owner, line 2	Text	100	Tax System	<na>	SUITE 1
26		3.8	OWN_ADD_L3	Mailing address of owner, line 3	Text	100	Tax System	<na>	
27		3.9	OWN_ADD_L4	Mailing address of owner, line 4	Text	100	Tax System	<na>	
28		3.10	TAX_NAME	Taxpayer name, first and last name	Text	100	Tax System	<na>	
29		3.11	TAX_ADD_L1	Taxpayer address line 1	Text	100	Tax System	<na>	
30		3.12	TAX_ADD_L2	Taxpayer address line 1	Text	100	Tax System	<na>	
31		3.13	TAX_ADD_L3	Taxpayer address line 1	Text	100	Tax System	<na>	
32		3.14	TAX_ADD_L4	Taxpayer address line 1	Text	100	Tax System	<na>	
33		3.15	LANDMARK	Name of predominant landmark	Text	150	Tax System (?)	<na>	MINNEAPOLIS FIRE STATION 15
34		3.16	HOMESTEAD	Homestead exemption	Text	100	Tax System	HOMESTEAD	Y= yes, N = no, F = fractional (possible to include MN Classification of Proper
35		3.17	ACRES_POLY	The calculated polygon acreage within the geospatial d	Double	11 (Incl. 2 decimal places)	Calculated from GIS geome	<na>	463.31, 81.17
36		3.18	ACRES_DEED	The deeded acreage of the parcel	Double	11 (Incl. 2 decimal places)	Tax System	<na>	464.19, 80.93
37		3.19	EMV_LAND	Total estimated market value of land	Integer	Long	Tax System	<na>	14000 (0 = no value, -9999 = no data or null value)

Parcel and Land Records Committee

Parcel Data Transfer Standard

Working Draft



	A	B	C	D	E	F	G	H	I
1	MN Parcel Data Transfer Standard (Working Draft, April-May, 2017)								
2	Element Category	Element Number	Attribute	Description	Type	Length	Origin	Domain	Example(s) and/or Notes
3	Identification Elements	1.1	OBJECT_ID	<default attribute>	<default>	<default>	<default>	<na>	
4		1.2	COUNTY_ID	Three character county ANSI (FIPS) Code	Text	3	County ANSI/FIPS	COUNTY_ID	Aitkin County = 001, Anoka County = 003, etc.
5		1.3	COUNTY_PIN	Unique parcel identification number in use by County	Text	28	Tax system	<na>	29-0-055902
6		1.4	STATE_PIN	Concatenation of COUNTY_ID, -, COUNTY_PIN	Text	32	Concatenation of other attr	<na>	001-29-0-055902
7	Confirmation of Address Elements in the Parcel Data Transfer Standard is pending the review, approval and incorporation of the attributes from the forthcoming MN Address Point Standard								
8	Address Elements	2.1	BLDG_NUM	Subject to change based on Address Point Standard					
9		2.2	PREFIX_DIR	Subject to change based on Address Point Standard				Domain >>	Domain of directions (North, Northeast, East, Southeast, South, etc.)
10		2.3	PREFIXTYPE	Subject to change based on Address Point Standard					
11		2.4	STREETNAME	Subject to change based on Address Point Standard					
12		2.5	STREETTYPE	Subject to change based on Address Point Standard				Domain >>	Domain of street types from USPS
13		2.6	SUFFIXDIR	Subject to change based on Address Point Standard				Domain >>	Domain of directions (North, Northeast, East, Southeast, South, etc.)
14		2.7	UNIT_INFO	Subject to change based on Address Point Standard					
15		2.8	CITY	Subject to change based on Address Point Standard				Domain >>	Domain of City Values
16		2.9	CITY_USPS	Subject to change based on Address Point Standard				Domain >>	Domain of Postal Community Values
17		2.10	ZIP	Subject to change based on Address Point Standard					
18		2.11	ZIP+4	Subject to change based on Address Point Standard					
19	Tax and Survey Elements	3.1	LOT	Lot	Text	30	Tax System	<na>	7, LOT 7, OUTLOT A, PARCEL A-LOT 7
20		3.2	BLOCK	Block	Text	30	Tax System	<na>	13, BLOCK 13
21		3.3	PLAT_NAME	Plat Name	Text	100-150 (?)	Tax System	<na>	EAST SIDE ADDITION TO MINNEAPOLIS
22		3.4	OWNER_NAME	Owner name	Text	100	Tax System	<na>	WINDOM, WILLIAM H or WILLIAM H WINDOM ET UX
23		3.5	OWNER_MORE	Additional owner name	Text	100	Tax System	<na>	
24		3.6	OWN_ADD_L1	Mailing address of owner, line 1	Text	100	Tax System	<na>	2204 FULLMORE STREET NE
25		3.7	OWN_ADD_L2	Mailing address of owner, line 2	Text	100	Tax System	<na>	SUITE 1
26		3.8	OWN_ADD_L3	Mailing address of owner, line 3	Text	100	Tax System	<na>	
27		3.9	OWN_ADD_L4	Mailing address of owner, line 4	Text	100	Tax System	<na>	
28		3.10	TAX_NAME	Taxpayer name, first and last name	Text	100	Tax System	<na>	
29		3.11	TAX_ADD_L1	Taxpayer address line 1	Text	100	Tax System	<na>	
30		3.12	TAX_ADD_L2	Taxpayer address line 1	Text	100	Tax System	<na>	
31		3.13	TAX_ADD_L3	Taxpayer address line 1	Text	100	Tax System	<na>	
32		3.14	TAX_ADD_L4	Taxpayer address line 1	Text	100	Tax System	<na>	
33		3.15	LANDMARK	Name of predominant landmark	Text	150	Tax System (?)	<na>	MINNEAPOLIS FIRE STATION 15
34		3.16	HOMESTEAD	Homestead exemption	Text	100	Tax System	HOMESTEAD	Y= yes, N = no, F = fractional (possible to include MN Classification of Proper
35		3.17	ACRES_POLY	The calculated polygon acreage within the geospatial d	Double	11 (Incl. 2 decimal places)	Calculated from GIS geome	<na>	463.31, 81.17
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Most attributes automatically processed from tax data system

Parcel Data Transfer Standard

Working Draft



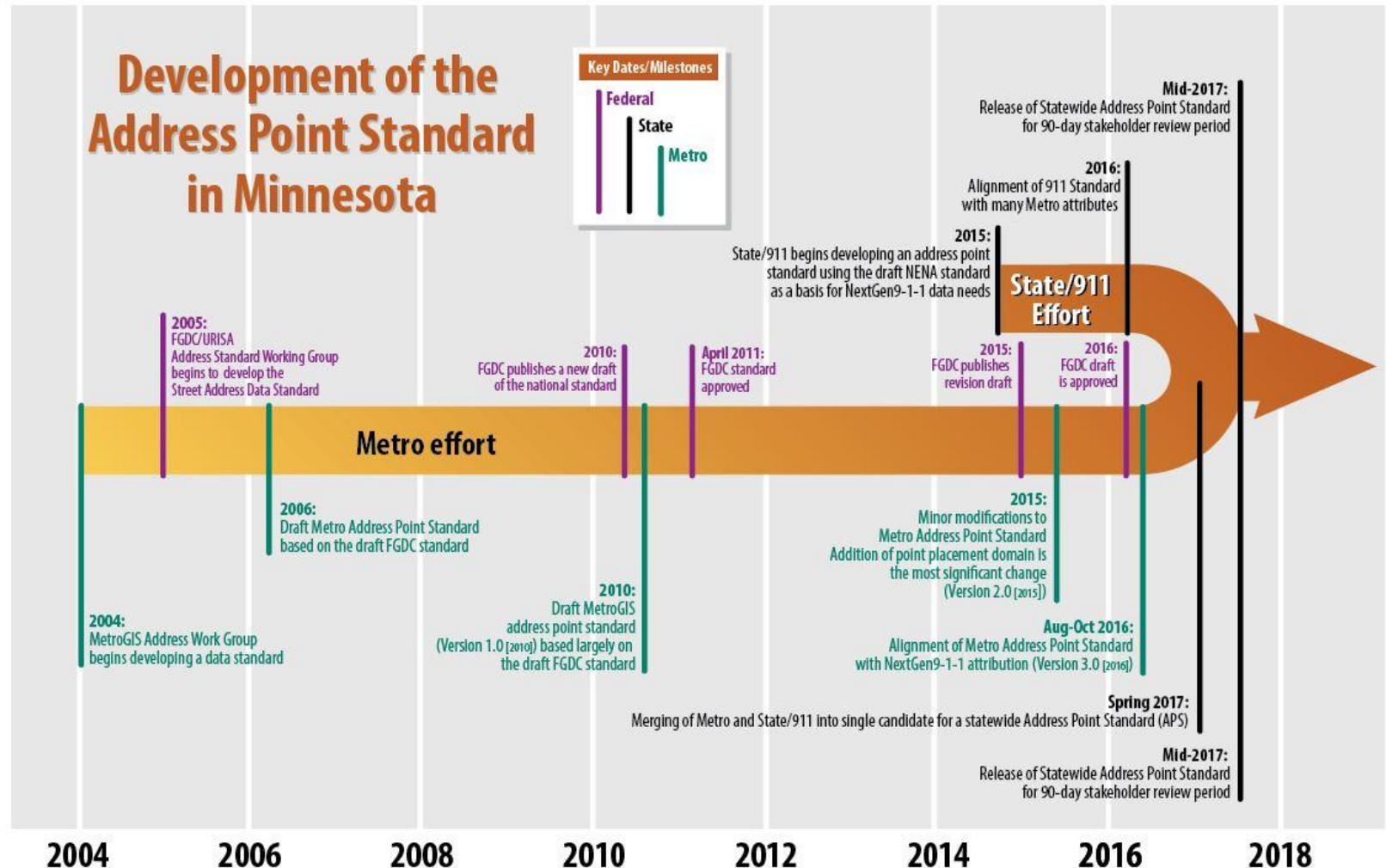
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38									

Any questions or comments on the existing Working Draft?

Address Point Standard

Existing Metro Address Point Standard (began 2004 [2010 v.1] [2015, v.2] [2016, v.3])

NextGen9-1-1 effort (began 2015)



Address Point Standard

NextGen9-1-1 Address Points:

Current effort: Collected input through June 2

Metro Address Work Group:

Modified existing metro standard to align with NextGen9-1-1 needs in Aug-Oct 2016

Advancing standard as a statewide candidate

June 21 – Standards Committee review

If green-lighted: publish and begin a 90-day review period

Address Point Standard

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Road centerlines

Two data specifications:

Metro Regional Centerlines Collaborative (MRCC)

May 2014 – April 2017

Documented the many *business needs* to be satisfied by the dataset

First dataset published on April 21, 2017

NextGen9-1-1 Road Centerline Standard

Began in 2015

Gathered input through June 2

Stormwater Data Standard

On-going, low-level metro effort; (*#7 priority for MetroGIS*)

Continuing to document **business needs**;

Possible stakeholder gathering this fall (mid/late Oct);

Make use of Existing Draft Exchange Standard (2010)

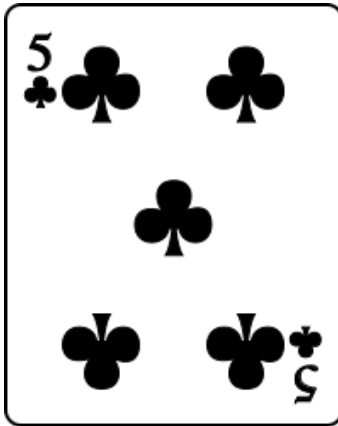
Fit with documented business needs;

Standards Committee

Next Meeting: June 21st

- > Address Point Standard*
- > Review the process*
- > Discuss any needs not being met*

geoffrey.maas@metc.state.mn.us



Free + Open Data Overview



Free + Open Data Overview

Numerous other jurisdictions and agencies:

- *Opening and publishing their data;*
- *No formal policy or resolution;*

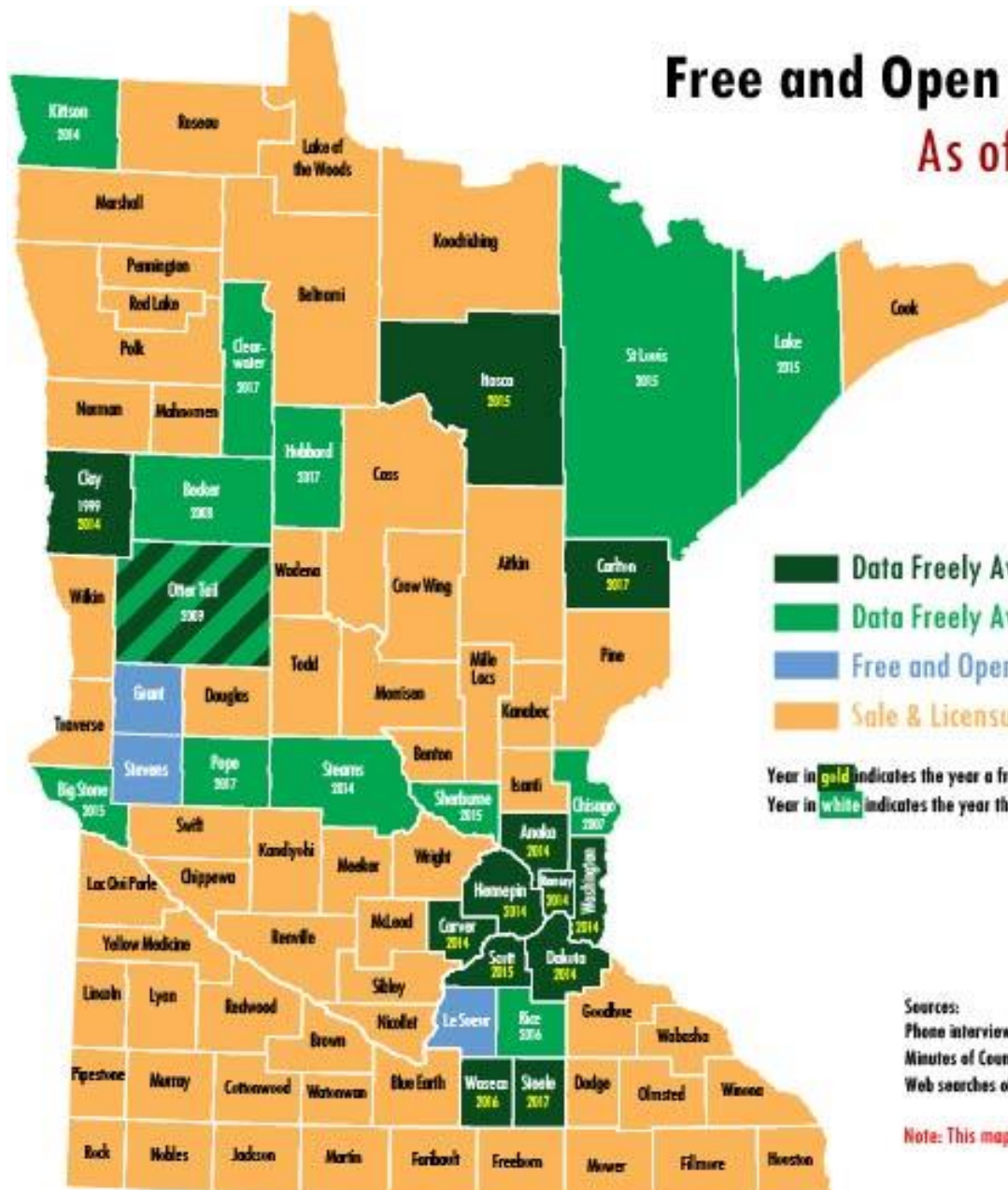
**Significant change from the past
two and a half decades:**

Sale and Licensing of GIS Data



Free and Open Public Geospatial Data

As of May 22, 2017

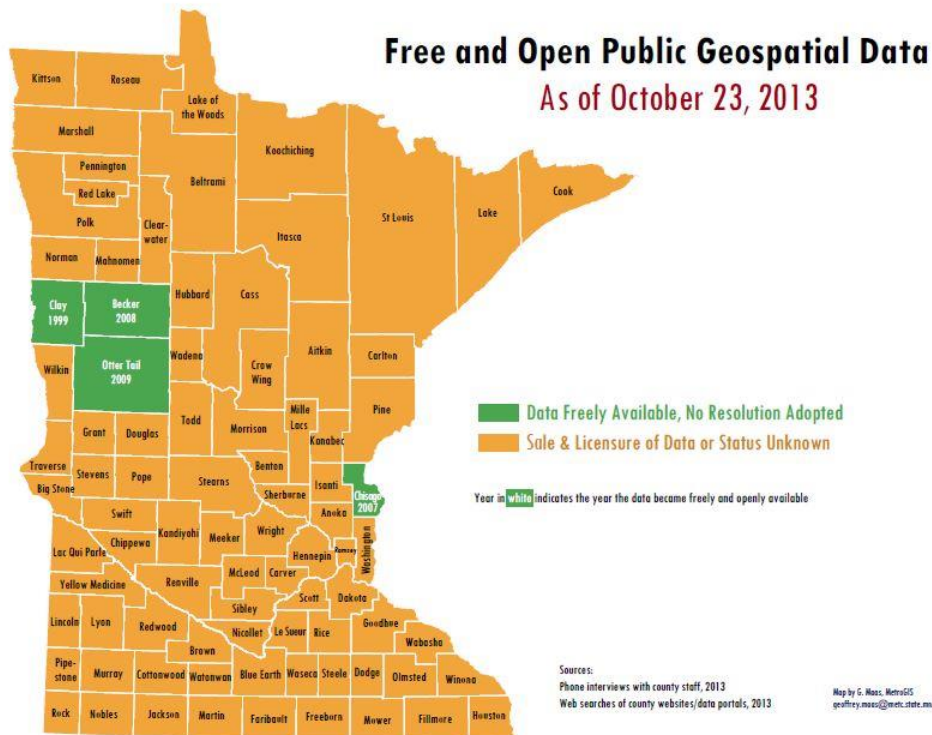


Sources:
Phone interviews with county staff, 2013-2017
Minutes of County Board Meetings, 2013-2017
Web searches of county websites/data portals, 2013-2017

Note: This map is subject to frequent updates.

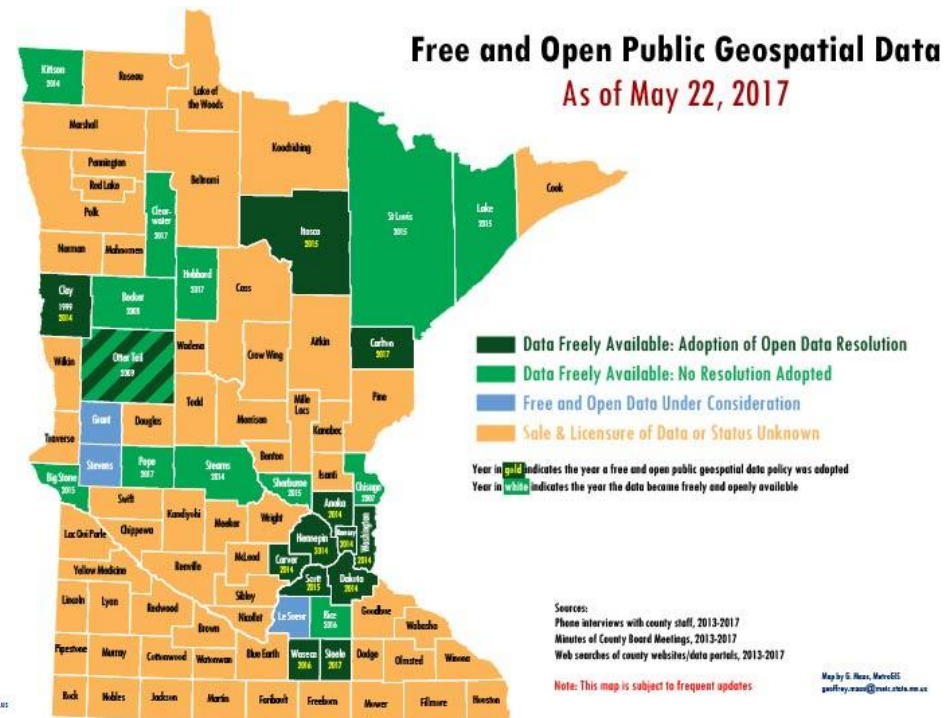
Map by G. Nease, MetroGIS
geoffrey.nease@metrostate.mn.us

October 2013



4 Counties Open

May 2017



25 Counties Open



Public data wasn't *public*?

If the geospatial data was/is public data...

Publicly funded...

Publicly produced...

For public purposes...

*Why was it simply not publicly available
to being with?*

Back to the late 1980s/early 1990s...



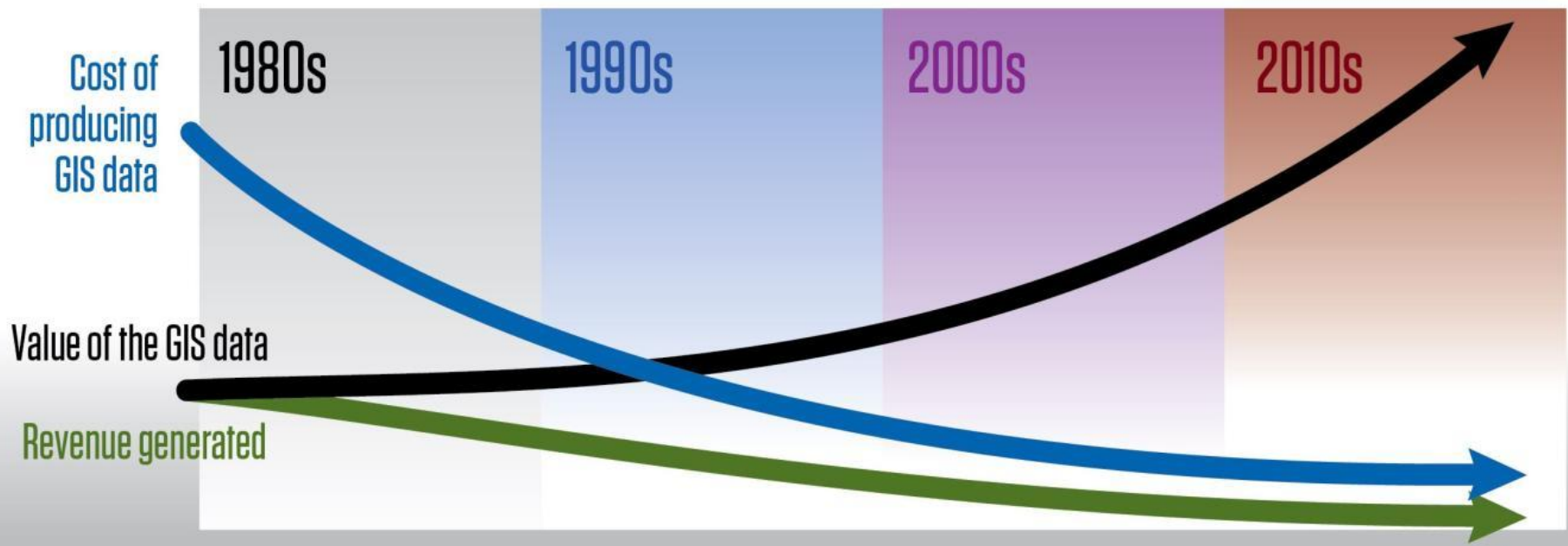
Late 1980s – Early 1990s

Emergence of GIS in Government

Significant Development Costs:

Hardware, Software, Staff Training, Data Development

Offset the costs of GIS deployment through the sale and licensing of data

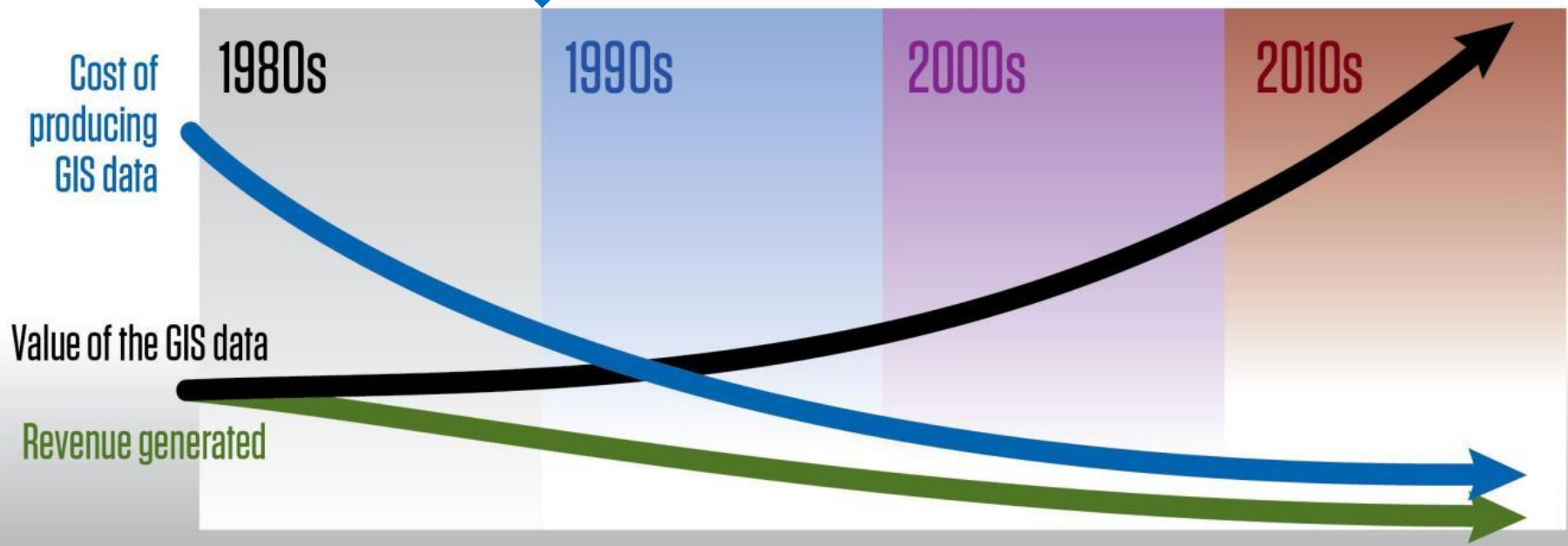


1990

Law Changes to Facilitate Cost Recovery by Cities and Counties

1990 Minnesota Legislative Session: §13.03, Subd. 3(d)

*Data producer interests lobbied to modify the state's Data Practices Act;
Enabled cities and counties to charge for and require licenses for their GIS data;*



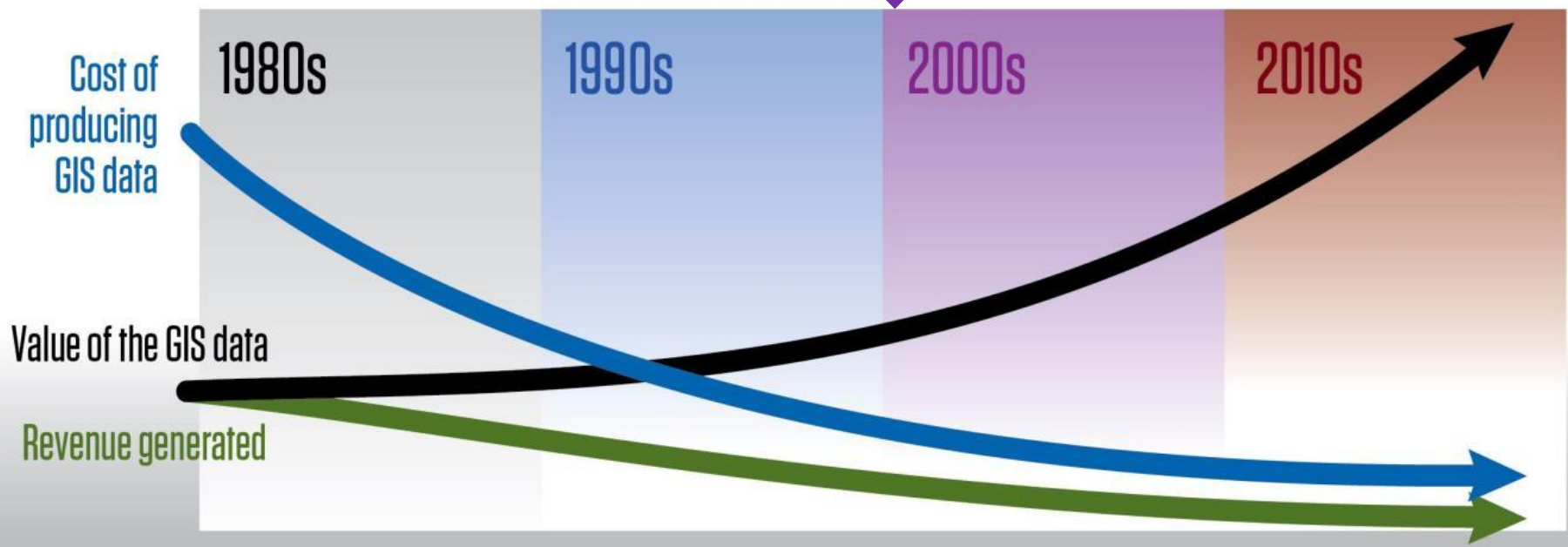
2000s

Maturity and Expansion of GIS

Common practice of agencies/interests selling & licensing data to one another

2000 Minnesota Legislative Session §466.03, Subd. 21(a) & (b)

Eliminated tort liability for any municipality or county producing GIS data



2010s

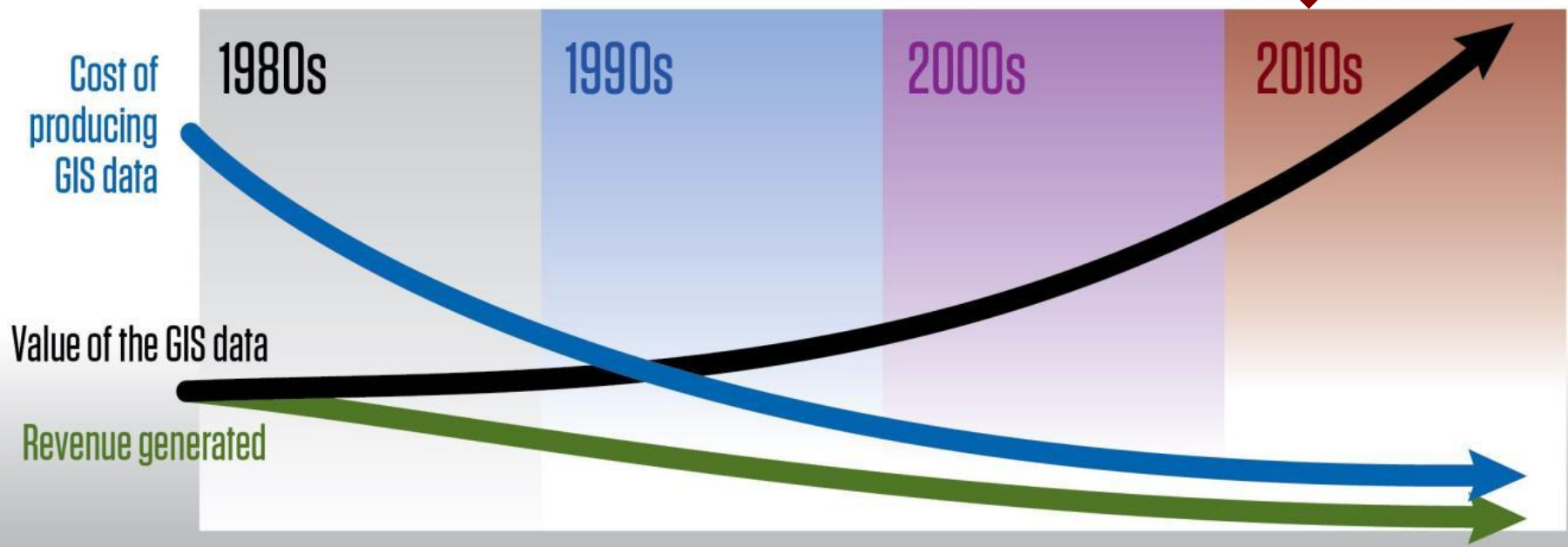
Meeting the Increasing Demand for Data

2013 Minnesota Legislative Session

§16E.30, Subd. 10 [formal legal definition of 'electronic geospatial data']

§16E.30, Subd. 11 [facilitates sharing between governments]

2014-2017: Twelve Counties adopting Free + Open Data Resolutions



2010s

Meeting the Increasing Demand for Data

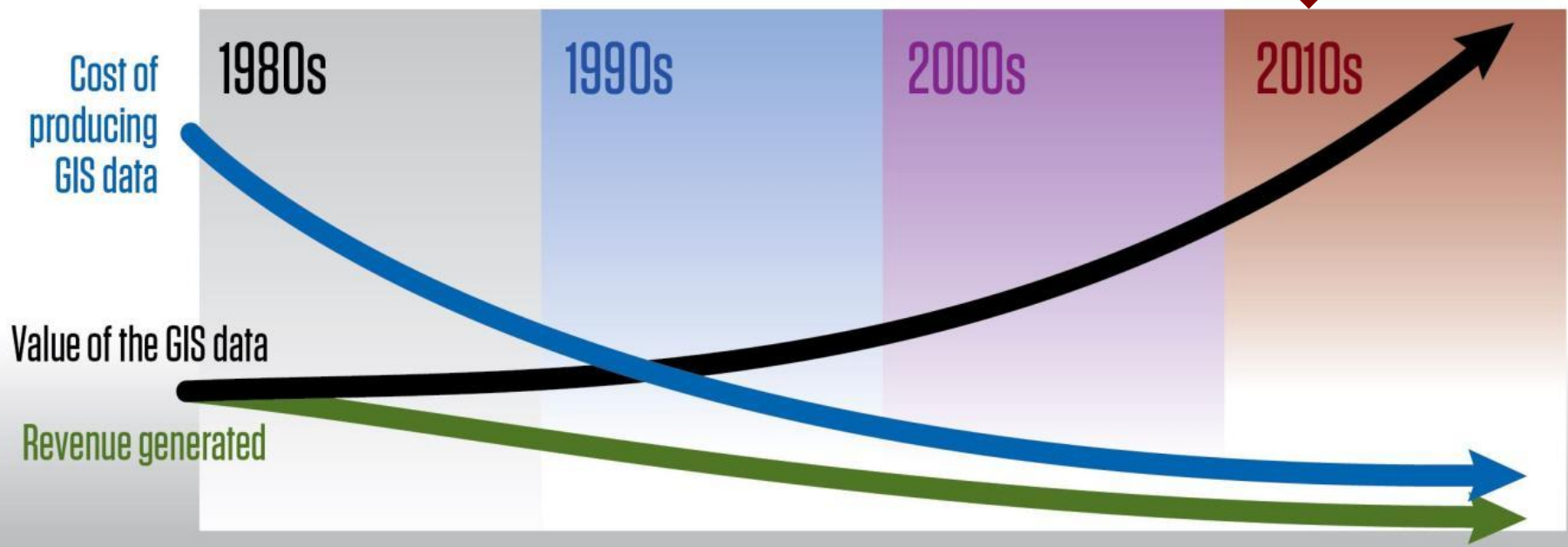
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'Value'





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Metro Centerlines

Free + Open Data

Address Point Aggregation

Address Point Editor

Public-Private Data Sharing

Stormwater Dataset

Teams + Governance

Why MetroGIS Matters

Affiliations

Archives

Free and Open Data Research

The MetroGIS Data Producers Work Group and Policy Board have been actively engaged in research, deliberation and review of the benefits of freely and openly available public geospatial data in the Seven County Metropolitan region.

The following resource materials, research and articles have been prepared and assembled over the course of 2013 in service of that discussion.

On October 23, 2013, the MetroGIS Policy Board adopted a Resolution of Support for Free and Open Public Geospatial Data and are advancing their recommendation and supporting research to the governments in the Seven County Metropolitan region.

As of October 2015, all Seven Metropolitan Counties have adopted free and open public geospatial data policies and are offering their data through their own data portal or through the [Minnesota Geospatial Commons](#).



MetroGIS Documents and Research

Single-Page Fact Sheet on Free and Open Geospatial Data

MetroGIS: Free & Open Access to Data: Research & Reference Documents

Free + Open Public Geospatial Data in Minnesota: Questions, Answers, Concepts and Resources for Practitioners, Version 4.0 (Updated May 6, 2016)

MetroGIS Policy Board Resolution of Support for Free and Open Public Geospatial Data

Sample Resolution Resource Document for City and County Governments

Sample Letter of Support from MetroGIS Policy Board Chair to County Board Chairs and County Administrators

Open Data Articles

NSGIC: Geospatial Data Sharing Guidelines for Best Practices

NSGIC: This Isn't Private Information

NSGIC: Economic Studies for GIS Operations

Brian Timoney: The Flawed Economics of Closed Government Data

New Legislation Cements California's Local Government Data Culture Shift

White House Guru to Counties: Unlock Your Data

Current Minnesota Status Map

Minnesota Free and Open Data Status Map (03.31.2016)

County Open Data Resolutions (by date of adoption)

Ramsey County, February 11, 2014
Hennepin County, February 11, 2014
Dakota County, March 25, 2014
Carver County, April 1, 2014
Anoka County, April 22, 2014
Clay County, October 28, 2014
Washington County, November 18, 2014
Scott County, October 6, 2015
Itasca County, December 9, 2015

Presentations

Free and Open Data: History and Recap of the Issue - Randy Knippel, Dakota County

Free and Open Data: Context - Geoff Maas, MetroGIS

NSGIC Presentation (September 16, 2014) - William Johnson (CIO, New York) & Geoff Maas (MetroGIS)

metrogis.org
> Projects
>> Free + Open Data

MetroGIS Research

- Single-page fact sheet
- **Two White Papers**
- Policy Board Resolution of Support
- Sample letters to elected officials
- Sample resolution language

Articles

Resolutions Adopted

Presentations

Resources and Background

Free + Open Public Geospatial Data in Minnesota (Updated 4/24/17: Version 6.0)



Free + Open Public
Geospatial Data
in Minnesota

Questions, Answers, Concepts, and Resources for Practitioners

Version 6.0 (Published: April 24, 2017)

Please note: This document is a working draft; comments, questions, additions and suggested revisions from GIS managers, specialists and practitioners in Minnesota's geospatial community are welcomed and encouraged.

> Context

> FAQ

> Links to resources

metrogis.org

> Projects

>> Free + Open Data

Resources and Background

Free + Open Public Geospatial Data in Minnesota (Updated 4/24/17: Version 6.0)





Comments? Questions?



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651.602.1638