



Moving MetroGIS From Concept to Reality:

Overview
of
Metropolitan Council's
Interim GIS Data and Cost Sharing Agreement Initiative
With Metro Area Counties
(1996-2001)

*Data Available, Contact Information, and Responsibilities of Data Recipients
September 1998*

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INTRODUCTION

In 1996, the Metropolitan Council agreed to facilitate the early work needed to move what has become known as MetroGIS from concept to reality.

Four strategic MetroGIS initiatives are currently in progress. They are: a) secure and manage GIS data and cost sharing agreements to access commonly needed data; b) agree on data specifications to answer high priority information needs of stakeholders and designate a custodian for each of these datasets; c) expand the core functionality of MetroGIS Data Finder, a mechanism to search for and obtain data from others through the Internet, and d) identify long-term financing and organizational mechanisms appropriate to accomplish desired MetroGIS functions and services.

The GIS Data and Cost Sharing Agreements Initiative is the subject of this document¹. GIS data and cost sharing agreements have been entered into between the Metropolitan Council and each of the seven metro counties in keeping with the Metropolitan Council's MetroGIS facilitation role². They provide access by all government organizations that serve the seven county metro area to specified geographically-referenced electronic data maintained by the seven counties and the Metropolitan Council.

The purpose of this document is to provide information about the data available through these agreements from each of the seven metro area counties and the Metropolitan Council, data access and distribution requirements, contacts, and responsibilities of the data recipients. Information is also provided about local GIS projects funded through these agreements and about an agreement requirement to provide for a GIS Users Group in each county with membership from all forms of local government serving the counties.

Eventually, the data documentation (metadata) listed in Attachments A-H will be accessible and searchable through the Internet by way of MetroGIS Data Finder (www.datafinder.org). The main body of this document will also eventually be posted on the MetroGIS WEB site (www.metrogis.org). This document will be updated, mostly likely on a quarterly or semi-annually basis, as the frequency of changes dictate. Until the document is available on the Internet, any revised pages will be forwarded to known recipients of the original document.

For more information about MetroGIS objectives, projects, and participants see the MetroGIS Internet site.

¹ See Page 5 for the agreement objectives and pages 10 and 11 for GIS projects funded through each agreement.

² A listing of the Metropolitan Council's MetroGIS facilitation roles is provided in Attachment I.

GLOSSARY OF TERMS

“Data producer” means the Metropolitan Council or any of the seven metro area counties (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington) who develop or assemble and maintain geographically referenced electronic data listed in the Attachments of this document.

“Geographic Information System (GIS)” means a computer-based technology that consists of computer hardware, software, data and trained personnel designed to efficiently capture, store, update, analyze and display all forms of geographically referenced electronic information.

“Geographically referenced electronic data” exist in three forms: (1) graphic data (e.g., parcel boundaries, street centerlines and planimetric data captured from aerial imagery such as building footprints, curb lines and contour elevations); (2) nongraphic data (e.g., tabular records that can be associated with graphic data); and (3) digital imagery data.

“Governmental unit” means all counties, cities, townships, soil and water conservation districts, watershed districts, watershed management organizations and school districts located within the seven-county metropolitan area; metropolitan government, including the Metropolitan Council, the Metropolitan Airports Commission, the Metropolitan Sports Facilities Commission, the Metropolitan Parks and Open Space Commission, Metropolitan Radio Board and the Metropolitan Mosquito Control Commission; and agencies and departments of the State of Minnesota and the federal government which have jurisdiction within the seven-county metropolitan area.

“MetroGIS” refers to a stakeholder-governed, cooperative venture that provides an ongoing metropolitan-wide mechanism through which participants can easily and equitably share geographically referenced graphic and associated attribute data that are accurate, current, of common benefit, and readily usable. This venture is in its formative stage.

OBJECTIVES AND EXPECTED RESULTS

Objectives: The Metropolitan Council adopted guidelines for these agreements in June 1996 after consulting with the MetroGIS Coordinating Committee. Each agreement is intended as an interim measure to foster data sharing and collaboration until the MetroGIS Policy Board attains the necessary legal status to enter into agreements on its own behalf. A goal throughout the negotiations for these interim agreements was to foster consistency from county to county concerning achievement of seven fundamental objectives. These objectives are as follows:

1. Facilitate widespread data sharing among government organizations to improve data available for internal business needs.
2. Facilitate a real world environment to identify data sharing obstacles and test solutions to overcome them.
3. Promote sharing of data maintenance costs among the data user community.
4. Facilitate development of locally needed means to share data that have regional significance (*e.g., standardized procedures, telecommunication links, etc.*)
5. Facilitate development or improvement of locally needed data of regional significance.
6. Facilitate county-based forums for frequent dialogue among local governments that serve each county to address GIS issues and opportunities of common interest.
7. Fairly compensate for prior investment in GIS technology and facilitate narrowing the gap among county GIS capabilities.

Expected Results: These seven agreements represent an investment of \$636,700 on the part of the Metropolitan Council. The Council authorized this investment with an expectation of achieving the following results:

1. Satisfy some immediate data access needs of the Metropolitan Council and other government organizations for internal business purposes.
2. Begin to “knit” together the region’s parcel geography.
3. Expand resources to address issues of significance to MetroGIS.
4. Agree on solutions to several local and regional GIS program needs.
5. Achieve fundamental GIS capabilities by each county.
6. Establish regular communication among government entities to identify and enact ways to minimize duplication of effort and improve organizational efficiency.
7. Improve data currency and accuracy.
8. Provide an empirical basis to evaluate the benefits of multi-jurisdictional data sharing.
9. Move toward standard data access policies across the Metro Area and encourage reciprocal data sharing arrangements.

Table 1
MetroGIS Objectives Addressed
by County Agreement

<i>County</i>	Facilitate Data Sharing-	Promote Sharing Data Maintenance Costs	Develop Means to Share Data	Develop/Improve Regionally Significant Data	Promote Forum to Discuss Common Needs	Recognition of Prior GIS Investment
Anoka	⊗	⊗	⊗	⊗	⊗	⊗
Carver	⊗			⊗	⊗	
Dakota	⊗	⊗	⊗	⊗	⊗	⊗
Hennepin	⊗	⊗	⊗	⊗	⊗	⊗
Ramsey	⊗	⊗	⊗	⊗	⊗	⊗
Scott	⊗	⊗	⊗	⊗	⊗	⊗
Washington	⊗	⊗	⊗	⊗	⊗	⊗

DATA ACCESS RULES

Through these agreements, government organizations can obtain geographically-referenced electronic data from:

- 1) The Metropolitan Council, at no cost if acquired via the Internet or for a modest cost to cover the cost of reproduction and handling if obtained through a medium other than the Internet.
- 2) Each of the seven metro area counties, subject to the same access rules that pertain to the Council with one exception: counties may impose different data access provisions for the local government units geographically located within their individual boundaries. This exception recognizes existing cooperative relationships between local government units located with the geographical boundaries of particular counties concerning financing for development, maintenance, and delivery of data of common interest.

The county agreements provide a minimum of a three-year window of data accessibility by other government units of geographically-referenced electronic data maintained by the counties. These agreements were executed at different times, so the expiration dates vary, ranging from December 31, 1999 to December 31, 2001. Each of the data producers has also agreed to keep the subject data current, to the extent practical, according to the standards defined by MetroGIS. An expectation exists that state and federal units of government which receive data free via these agreements will reciprocate and share data they maintain with MetroGIS participants. A summary of the interim data access rules is presented in Table 2, below.

The Council entered into these agreements with the understanding they will be superseded by long-term data sharing arrangements between the MetroGIS Policy Board and the metro area counties, Metropolitan Council, and other producers of data of regional significance.

Table 2
Data Access Rules by Data Producer*
(Refer to the Next Section for the Data Available)

Organization	Expiration of Data Sharing Agreement	Free Access**	Access for Cost of Delivery/Network Fee**
Metropolitan Council	None	1	2
Anoka County	November 30, 2000	1	2
Carver County	3 years after parcel database complete	1	2
Dakota County	December 31, 1999	1	2
Hennepin County	December 31, 2001	1 (Not other wide area networks)	2 and 3
Ramsey County	None	1	2
Scott County	December 31, 1999	1	2
Washington County	July 31, 2000	1	2

* Exception: Counties are not subject to the data accessing provisions of these agreements concerning the local government units geographically located within their individual boundaries.

**Legend: 1) Internet or other wide area network, 2) Any media other electronic transfer, and 3) Wide-area-network/Intranet other than the Internet.

AVAILABLE DATA AND SOURCES OF INFORMATION

Table 3, below, summarizes the variety of data available from each metro area county and from the Metropolitan Council via the data sharing agreements. A brief description of each of these datasets, by data producer organization, is presented in Attachments A-H. These data descriptions are in the process of being converted to metadata compliant with the Minnesota Geographic Metadata Guidelines (version 1.1) to permit data users to search for needed data via the MetroGIS Data Finder Internet site at www.datafinder.org.

**Table 3
Data Available To Government Units
Via Agreements**

<i>Major Data Types Available</i>								
<i>County</i>	Parcel Boundaries	Property Description	Physical Features	Soils	Street C/L	Water Features	Contour Elevations	Other
Anoka Co.	⊗	⊗			⊗	⊗		⊗
Carver Co.	⊗	⊗		⊗	⊗	⊗	⊗	⊗
Dakota Co.	⊗	⊗	⊗	⊗		⊗	⊗	⊗
Hennepin Co.	⊗	⊗		⊗	⊗	⊗		⊗
Ramsey Co.	⊗	⊗	⊗		⊗	⊗		⊗
Scott Co.	⊗	⊗	⊗	⊗	⊗			⊗
Washington Co.	⊗	⊗		⊗	⊗	⊗		⊗
Metropolitan Council				⊗	⊗		⊗	⊗

**Table 4
Sources of Information About Available Data**

Metadata (data documentation) for all of the datasets available from the Metropolitan Council will be posted on the MetroGIS Data Finder Internet site at www.datafinder.org by October 1, 1998. Metadata for data available from metro area counties is in various stages of development. Please begin your search for information about available data using Data Finder. Look under “contributors” for the organization or under “theme” for the type of data you are seeking. If Data Finder does not have the information you need, contact the individuals listed below in Table 4. E-mail is the preferred means of contact.

<u>Government Unit</u>	<u>Contact Person</u>	<u>E-mail Address</u>	<u>Telephone</u>
Anoka County.	Paul Leegard	pleegard@pubser.co.anoka.mn.us	422-7508
Carver County.	Dave Drealan	ddrealan@pubser.co.carver.mn.us	361-1823
Dakota County	Carla Coates	carla.coates@co.dakota.mn.us	891-7086
Hennepin County	Chuck Krueger	chuck.krueger@co.hennepin.mn.us	348-5140
Ramsey County	Curt Peterson	cpeterson@pw.co.ramsey.mn.us	266-2623
Scott County.	Jim Hentges	jhentges@co.scott.mn.us	496-8362
Washington County	Jane Harper	harper@co.washington.mn.us	430-6011
	Jay Krafthefer	kraftheferjay@co.washington.mn.us	430-6878
Metropolitan Council	Mark Kotz	gisdata@metc.state.mn.us	602-1644

RESPONSIBILITIES OF DATA RECIPIENTS

A license agreement generally must be entered into with the respective data producer to obtain data with commercial value via these GIS Data and Cost Sharing Agreements. Not all data available through these agreements qualifies as having commercial value, and therefore some data can be obtained without entering into a license. The decision whether to require a license is made by the respective data producers. Where licensing is required, the key provisions addressed by the license agreements are as follows:

- Use of any shared data is limited to the support of the receiving organization's internal business purposes or purposes related to the development of MetroGIS.
- Data received via these agreements shall not be disclosed to any third party without prior written permission from the data producer.
- All data are provided on an "as is" basis, without warranty of use. The receiving government unit assumes all liability arising from their particular use of all data obtained via these agreements.

An attempt is being made to standardize, to the extent practical, key provisions of data sharing licenses among data producers.

In addition to the license provisions, each recipient of shared data must agree to provide a contact person who may be interviewed regarding the receiving organization's use of the shared data. Each data producer is required to maintain a data-sharing log to track all data shared during the term of these agreements. These logs will be a primary source to document the benefits of multi-participant data sharing.

The Center of Urban and Regional Affairs (CURA) at the University of Minnesota has received a federal grant through the National Spatial Data Infrastructure (NSDI) program to evaluate and document the benefits that can and are being achieved through the MetroGIS initiative. The study, planned to begin in October 1998, will also document circumstances that hamper data sharing among MetroGIS participants. Dr. William Craig, Assistant Director of CURA, will manage the study.

GIS PROJECTS FUNDED THROUGH THE AGREEMENTS

An assessment of local GIS needs with regional significance was collaboratively undertaken in each county as part of the agreement negotiations. County officials agreed to utilize funding received from the Metropolitan Council to supplement their cost of data maintenance and to enhance their local GIS programs with the projects listed below. In return for this funding, County officials agreed to share their GIS data for not less than three years with other government units that serve the seven county metropolitan area.

Table 5
County GIS Projects Funded
Through GIS Data and Cost Sharing Agreement

County	Cost Shared Projects
Anoka	Improve accuracy and completeness of parcel base map. Improve Internet/Intranet accessibility to GIS data. Assist I-35W Corridor Coalition develop an integrated GIS to serve its member communities. Study to better understand and serve the GIS data needs of local government and general public within Anoka County. Project(s) to be defined.
Carver	Develop digital parcel boundary coverage. Develop digital street centerline coverage.
Dakota	Update physical features (planimetric) database. Develop high-speed telecommunication links between cities, county, and Council. Project(s) to be defined by County Partnership.
Hennepin	Begin implementation of effective ways to distribute data in and among government that serve the County. Implement county-wide land use plan and zoning designations schemes Improve the accuracy and completeness of their parcel base map. Facilitate a collaborative countywide method to create and maintain on-line orthoimagery and related planimetric coverages. Implement the Minnesota Geographic Metadata Guidelines for the County's Geo-referenced data. Project(s) to be defined.
Ramsey	Update physical features (planimetric) database. Create an internal, one-stop, electronic data retrieval system. Study use of cable to transmit GIS data. Assist I-35W Coalition develop an integrated GIS to serve its member communities.
Scott	Complete development of seamless digital parcel boundary coverage. Completion of digitizing soils survey Develop automated transfer of parcel attribute data from assessor database to GIS compatible format.
Washington	Develop metadata and GIS Product Directory. Refine/correct jurisdictional boundaries. Project yet to be defined.

COUNTY-BASED GIS USERS GROUPS

Networking, sharing knowledge of GIS technology, and discussion among local government officials of common GIS program needs and opportunities are fundamental to the achieving the mission of MetroGIS. To facilitate this dialogue among local government officials and other organizations that have an interest in these matters, a provision has been included in each county agreement that requires county officials to facilitate the creation, if none exists, and actively participate in a County-based GIS Users Group comprised of representatives of all forms of local government geographically located within their respective county boundaries.

Startup and operation of each of these GIS users groups require the energy and time of a few individuals in each county who understand the significant benefits that can be realized by working together to resolve GIS matters of common interest. Formal GIS users groups were operational in Dakota, Ramsey, and Washington Counties prior to executing their agreements. Each operates in a slightly different fashion but nonetheless provides a means of accomplishing the objectives stated in the GIS Data and Cost Agreements. Any person interested in working with County officials to establish and participate in these GIS User Groups is encouraged to speak with the contact person listed below for the county in which your organization is located and to visit with members of the established GIS users groups.

Table 6
County-based GIS User Groups

County	Contact Person	E-Mail Address	Telephone
Anoka	Margo LaBau	mklabau@pubser.co.anoka.mn.us	323-5519
Carver	Dave Drealan	ddrealan@pubser.co.carver.mn.us	361-1823
Dakota	Gary Stevenson	gary.stevenson@co.dakota.mn.us	891-7088
Hennepin	Gary Caswell	gary.caswell@co.hennepin.mn.us	348-3131
Ramsey	Cliff Aichinger	rwmwd@mtn.org	777-3665
Scott	Jim Hentges	jhentges@co.scott.mn.us	496-8362
Washington	Jay Krafthefer	kraftheferjay@co.washington.mn.us	430-6878

ATTACHMENT A

**DATA AVAILABLE
FROM
ANOKA COUNTY**

ATTACHMENT B

**DATA AVAILABLE
FROM
CARVER COUNTY**

ATTACHMENT C

**DATA AVAILABLE
FROM
DAKOTA COUNTY**

ATTACHMENT D

**DATA AVAILABLE
FROM
HENNEPIN COUNTY**

ATTACHMENT E

**DATA AVAILABLE
FROM
RAMSEY COUNTY**

ATTACHMENT F

**DATA AVAILABLE
FROM
SCOTT COUNTY**

ATTACHMENT G

**DATA AVAILABLE
FROM
WASHINGTON COUNTY**

ATTACHMENT H

**DATA AVAILABLE
FROM
METROPOLITAN COUNCIL**

ATTACHMENT I

**METROPOLITAN COUNCIL'S
MetroGIS FACILITATION ROLES**

Creation of MetroGIS

Statement of the Metropolitan Council's Role

Background: The MetroGIS Visioning/Coordinating Team (representation from all major stakeholder interests) accepted this role statement on January 25, 1996. On February 8, 1996, the Metropolitan Council unanimously adopted this statement of its role in the creation of the MetroGIS.

Statement of Leadership Role:

The Metropolitan Council has accepted a leadership role to create a metro-wide GIS; an entity through which widespread sharing and exchange of GIS data sets and technology can become a reality among public agencies and private sector organizations within the seven-county metropolitan area. Leadership is defined as the following activities:

- Finance, coordinate, and support the strategic planning and decision making processes,
- Develop and maintain regional data sets (e.g., land use, census geography/TAZ, road centerline & census address range, soils, imagery, administrative boundaries),
- Provide support (staff and/or equipment) to the visioning/coordination team and to strategic issue teams,
- Finance and support communication with stakeholders (activity status and opportunities to participate),
- Selectively design, finance, coordinate, and staff projects that address local GIS and MetroGIS program needs,
- Facilitate the execution of data/cost sharing agreements among stakeholders,
- Participate financially in a fair share of the long term maintenance of the MetroGIS,
- Any other activities consistent with the strategic plan and acceptable to all affected parties.

ACKNOWLEDGMENTS

The GIS and Data Sharing Agreements discussed in this document could not have been accomplished without the hard work, creativeness, and leadership of a number of individuals from each of the seven counties and the Metropolitan Council. Thank you for your time and effort. Thank you also to the MetroGIS Coordinating Committee for your advice on the agreement guidelines, to the County Boards for agreeing to collaborate with the Metropolitan Council on this initiative critical to moving MetroGIS from concept to reality, and to the Metropolitan Council for authorizing the funding necessary to accomplish the task.

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