



# **MetroGIS Performance Measurement Plan Update**

September 2009

*Prepared by KLD Consulting with input and direction from MetroGIS Staff and the  
MetroGIS Advisory Workgroup*

(MetroGIS Policy Board adopted \_\_\_\_\_, 2009)

## **MetroGIS Purpose/Mission**

The mission of MetroGIS is expanded stakeholders' capacity to address shared geographic information technology needs, through a collaboration of organizations that serve the Twin Cities Metropolitan Area.

## **Recommended Approach to MetroGIS Performance Measurement**

MetroGIS is composed of many different stakeholders with varying interests and needs. This presents a challenge with regard to performance measurement, since it cannot be assumed that all stakeholders are interested in the same geodata, levels of accuracy and currency, level of collaboration, etc. To support the outcomes established in the MetroGIS 2008 – 2011 Business Plan, it is recommended that MetroGIS refine its performance measurement strategy to allow for a greater focus on varying stakeholders' current and emerging needs and interests. As an initial categorization, stakeholders can be grouped into two types: data producers and users. While all organizations that are data producers are also data users, the data user vs. data producer differences still exist within those organizations and may result in varying levels of satisfaction with MetroGIS.

Given limited staff resources within MetroGIS and its stakeholder community, establishing a more focused approach is recommended as a way to ensure that the highest priority activities are given the greatest attention. MetroGIS cannot be all things to all stakeholders, and realizing this, this change in measurement strategy may support greater prioritization of activities and potentially better results over time.

It is recommended that MetroGIS continue to track the metrics currently being collected through webtrends and other tracking mechanisms, however this information should be presented in a more understandable and useful manner so that staff is better able to improve and refine existing data access and data recovery tools (DataFinder, etc). In this way, the exploration of trends, for example, in downloads of datasets, will continue to be undertaken but only changes that are well understood and relevant to policy makers will be reported out to the Coordinating Committee and the Policy Board.

In summary, the approach recommended here is to take a stakeholder-based approach to performance measurement. In this way, MetroGIS can better detect where resources should be focused to increase and sustain satisfaction with MetroGIS activities and services. For example, better understanding stakeholder needs and interests will point MetroGIS towards addressing emerging needs and growing support for ways to address those needs. This is critical to MetroGIS's long-term sustainability, as it is a voluntary organization that exists only through the perceived benefits accrued by its stakeholders.

The following shows two tables:

- Table 1: Proposed Performance Measures by Stakeholder Type
- Table 2: Summary of Methods of Measurement

Table 1 presents the type of stakeholder, the desired outcomes for that stakeholder, how these outcomes relate to outcomes and strategies defined in the business plan, along with possible measures and methods for measurement. Table 2 provides more detailed descriptions of proposed data collection methods.

**Table 1: Proposed Performance Measures by Stakeholder Type** (see Exhibit A for diagram of MetroGIS Stakeholders and Inter-organizational relationships)

Stakeholders (Functional Type)	Desired Outcomes	Relationship to Business Plan	Possible Measures	Possible Methods of Measurement (See Table 4)
<p>Policy Makers (on behalf of the public)</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>- Counties</li> <li>- Cities</li> <li>- School Boards</li> <li>- Watersheds</li> <li>- State Agencies</li> </ul>	<p>Better and more accessible information to support decision making</p> <p>Better able to assist stakeholders in communicating information to constituents</p>	<p>Better decisions being made</p> <p>More effective, efficient core stakeholder</p> <p>Community goals are achieved</p> <p>Help Stakeholders solve real world problems</p>	<p>Level of satisfaction with how geodata can be used to inform public policy deliberations</p>	<p>Collect subjective information through development of case studies about use of geodata to support decision making (perhaps conducted by students) (similar to present "testimonials")</p> <p>Collect comments and insights from annual review of case studies with key elected officials, as identified by the MetroGIS Policy Board. This is aimed at determining relevance and value of MetroGIS services to policy makers</p>
<p>Data Producers (staff level)</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>- Metropolitan Council</li> <li>- Counties</li> <li>- Cities</li> <li>- Mn DNR</li> </ul>	<p>Data producers realize improved efficiencies by <b>streamlined data distribution</b> through MetroGIS mechanisms</p> <p><b>Duplication of effort is minimized</b> through collaboration with other data producers</p>	<p>Cost avoidance</p> <p>More effective, efficient core stakeholders</p> <p>Cost avoidance</p> <p>Good collaboration occurs and endures</p>	<p>Hours of geodata producer staff time saved</p> <p>Perceived benefits of collaborative approach from the perspective of data producers</p>	<p>Survey of data producers that focuses on staff time saved and benefits accrued as a result of MetroGIS mechanisms</p> <p>Survey of data producers that would also cover other benefits of MetroGIS including perceived cost avoidance resulting from collaboration on development of datasets</p>

<p>Application Producers (staff level)</p> <p>Examples:  <ul style="list-style-type: none"> <li>- Metropolitan Council</li> <li>- Metro Counties</li> </ul> </p>	<p><b>Expand solutions to shared geographic information needs</b> (current and emerging) to include applications that leverage the full capabilities of GIS technology</p>	<p>Cost avoidance</p> <p>More effective, efficient core stakeholder</p> <p>Have common applications</p>	<p>Hours of staff time saved for application producers</p> <p>Perceived benefits of collaborative approach from the perspective of data producers</p>	<p>Survey of entities developing applications that focuses on staff time saved and benefits accrued as a result of MetroGIS mechanisms; in addition, address cost avoidance resulting from collaboration on development of applications</p>
<p>Data and Application Users</p> <p>Examples:  <ul style="list-style-type: none"> <li>- Metropolitan Council</li> <li>- Counties</li> <li>- Cities</li> <li>- School Districts</li> <li>- State Agencies</li> <li>- Federal Agencies</li> <li>- Private Sector</li> <li>- Academia</li> <li>- Non-profits</li> <li>- Other</li> </ul> </p>	<p>New datasets, methods of accessing data, and applications are being developed to <b>address unmet user needs, both existing and emerging</b></p>	<p>Better Information</p> <p>Have data that is needed</p>	<ul style="list-style-type: none"> <li>- Methods exist to identify unmet needs, both existing and emerging</li> <li>- Extent to which emerging user needs are being addressed in a collaborative manner</li> </ul>	<p>Survey of users – what are their emerging needs and priorities; how can they best be addressed; does the MetroGIS model create ways to respond to these needs</p>
	<p>Currently available data is of sufficiently <b>high quality and meets business needs</b> (accurate, current, complete, relevant) (both regionally-endorsed, and other)</p>	<p>Have data that is needed</p> <p>Improved/Better confidence in data</p> <p>Better Information</p>	<ul style="list-style-type: none"> <li>- Level of quality and usefulness of regionally endorsed datasets</li> <li>- Level of quality and usefulness of non-endorsed datasets</li> <li>- Level of accuracy, currency, relevance, and completeness of both regionally endorsed and non-endorsed datasets, and how these datasets are meeting or failing to meet organizational needs</li> <li>- # of downloads of RE datasets</li> <li>- User satisfaction with the number of RE datasets</li> </ul>	<p>Survey of data users, broken down by category, to measure data user's access to data, the usefulness of the data, how the data is being used, and user suggestions to improve access to data. The survey should also collect comments on how having access to MetroGIS has affected their organization (i.e. service improvements, staff time saved, increased efficiency)</p>

	<b>Access to data</b> needed to support operations	Have data that is needed  Better information	<ul style="list-style-type: none"> <li>- Staff time saved as a result of having quick and easy access to geodata needed</li> <li>- Service improvements resulting from quick and easy access to quality geodata</li> </ul>	
New Data/Application Users and Producers (new to using MetroGIS mechanisms)	<b>MetroGIS broadens participation</b> by attracting new data and application users and producers	Broaden participation  Expanded GIS user base and visibility of MetroGIS	<ul style="list-style-type: none"> <li>- Number of new participating organizations</li> <li>- Contribution of new data producers and users</li> </ul>	- Electronic surveys - when data downloads are requested or applications used, new MetroGIS users would be asked to complete a voluntary survey.
MetroGIS - Organizational Governance	Optimized governance and organizational structure  Develop mechanisms for interaction with private sector interests	Optimized governance and organizational structure  Good collaboration occurs and endures  Enhanced effectiveness for cross-jurisdictional decision making  Enhanced Effectiveness	Effectiveness of the Policy Board and committees at <u>resolving public policy issues / differences</u> related to shared geospatial needs. For example: security for licensed or otherwise sensitive data; multiple uncoordinated license procedures; liability concerns related to cross-sector sharing of data (i.e. private, non-profit), applications, and/or services; cost recovery practices; inconsistent, overly restrictive practices and policies involving government and non-government interests.  Effectiveness of dialogue with private and nonprofit sector representatives	On a bi-annual basis, interview a subset of key representatives from core stakeholder agencies: Metropolitan Council mgmt; Chair of MetroGIS Board; staff committee chairs, etc.  Also interview former committee members and others who are able to provide insights on effectiveness of the MetroGIS governance structure.

			<p>Effectiveness of funding strategies that lead to a sustained collaboration: extent to which multiple stakeholders participate in funding collaborative activities; adequacy of level of funding to achieve collaborative outcomes</p> <p>Effectiveness of internal communications efforts (GIS technology demonstrations, and reporting mechanisms such as year-end and performance reports)</p> <p>Availability of leaders from the user and producer communities willing to support and guide the MetroGIS collaborative</p>	
General Public	Have information to solve real-world problems	<p>More informed citizens</p> <p>Achieve community goals</p> <p>Improve quality of life</p>	No measure recommended, as this outcome is related to others that are more measurable	Having information to solve real world problems is considered to be an outcome that MetroGIS can influence, but other organizations are actually responsible for achieving. Therefore, it is a non-measurable outcome that should naturally occur through MetroGIS' capacity building efforts

**Table 2: Summary of Methods of Measurement**

Data Collection Method	Administered by:	Frequency	Details / Types of questions	Results reported to:
<p>Survey of Data Producers</p> <ul style="list-style-type: none"> <li>- Metropolitan Council</li> <li>- Counties</li> <li>- Cities</li> <li>- MN DNR</li> </ul>	<p>MetroGIS staff</p>	<p>Bi-Annually</p>	<p>Survey will be administered through existing web-based survey tool such as Zoomerang.</p> <p>Specific survey questions will be developed by a workgroup of stakeholders and MetroGIS staff. The survey should address: the perceived value of participating in MetroGIS including staff time saved and benefits accrued as the result of streamlined data distribution methods via MetroGIS mechanisms. A key question would be what would change for data producers if MetroGIS did not exist. The survey should also solicit information on emerging needs.</p>	<p>MetroGIS Coordinating Committee for in-depth discussion</p> <p>MetroGIS Policy Board for high-level review</p>
<p>Survey of Data Users</p> <ul style="list-style-type: none"> <li>- Data Producers</li> <li>- Governmental / Agency</li> <li>- Schools</li> <li>- Businesses</li> <li>- Non-profits</li> <li>- Academia</li> <li>- Other</li> </ul> <p>Survey of data users, broken down by category and sub-category, to measure data user's access to data, the usefulness of the data, how the data is being used, and user suggestions to improve access to data. The survey should also collect comments on how having access to MetroGIS has affected their organization (i.e. service improvements, staff time saved, increased efficiency)</p>	<p>MetroGIS staff</p>	<p>Bi-Annually</p>	<p>Survey will be administered through existing web-based survey tool such as Zoomerang. A consumer satisfaction rating system could be employed.</p> <p>Specific survey questions will be developed by a workgroup of stakeholders and MetroGIS staff. The survey address: who data users are, for what purpose are they are using the data, are their data needs being met by MetroGIS (if not, what could MetroGIS do to meet their needs?), how the users' core functions would be affected if MetroGIS was not serving the function of supporting collaboration and if tools such as Datafinder were not available.</p>	<p>MetroGIS Coordinating Committee for in-depth discussion</p> <p>MetroGIS Policy Board for high-level review</p>
	<p>Electronically (DataFinder staff would develop)</p>	<p>On going as users access DataFinder site</p>	<p>When data downloads are requested, new and existing MetroGIS users will be asked to complete a voluntary electronic survey. This will be used to find out who data users are (what type of group they represent: private, government, non-profit, etc.), their geographic extent, if the data they are searching for is</p>	<p>Results reviewed monthly by MetroGIS and Council GIS staff; reported to Coordinating Committee on a bi-annual basis</p>

			available, what data the users like, what data they would like to have on DataFinder that is not currently there, suggested improvements for MetroGIS, and any concerns/issues they have with the service. This could be used to support development of an outreach plan for similar users.	
Interviews with MetroGIS Policy Board Members	MetroGIS Staff	Bi-Annually	Interview questions should focus on whether or not the strategies and tactics for optimizing MetroGIS governance and organizational structure (outlined in Business Plan) have been incorporated into the work program.	MetroGIS Policy Board
Web trends reporting	MetroGIS Staff	Annually	Develop an automated way to collect and report web trend numbers (reduce the amount of staff time for this work).	High-level trends reported to Coordinating Committee and Policy Board as determined of value by MetroGIS staff
Case Studies - Based on interviews with Key Managers and Policy Makers from the Data User community	Grad students with oversight from MetroGIS staff	Bi-Annually	Subjective information would be collected through development of case studies about the use of geodata to support decision making (similar to present "testimonials")  Case studies would focus on comments and insights from key elected officials, as identified by the MetroGIS Policy Board. This is aimed at determining relevance and value of MetroGIS services to policy makers	MetroGIS Coordinating Committee for in-depth discussion  MetroGIS Policy Board for high-level review

### Next Steps

This draft plan will be presented to the MetroGIS Coordinating Committee on September 10, 2009, and comments made by that committee will be incorporated into a final plan. The next major activities will be to form a staff group that will work on specific plans for survey development and methodology, using the overall approach outlined in Table 2.

Figure 2. MetroGIS: Fostering Inter-Organizational/Sector Collaboration

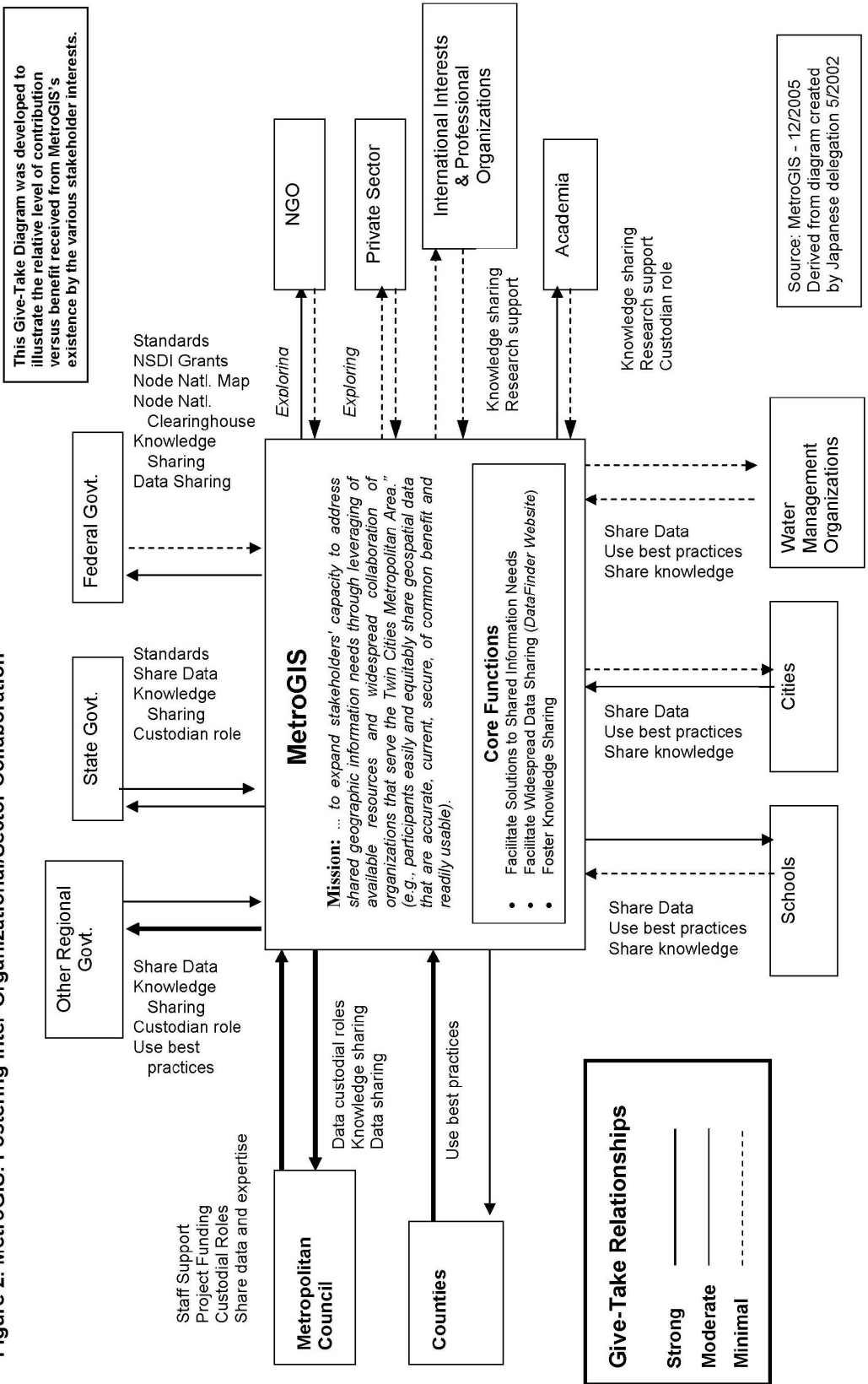


Exhibit A. MetroGIS Stakeholders and Inter-organizational relationships