

“Starter Kit” Statements

(DESIRED OUTCOMES, GUIDING PRINCIPLES, AND ACTIVITIES)

IN PREPARATION FOR

STRATEGIC DIRECTIONS WORKSHOP
FEBRUARY 8, 2007

Note to Participants: Please keep in mind that the purpose of the Strategic Directions Workshop is to set clear policy direction (“whats and whys”) to guide MetroGIS’s efforts for the next 3-5 years. The “hows” will be addressed in the Business Plan Update process that will begin immediately following the February 8th Workshop.

I. INTRODUCTION

Starter Kit Statements: The “starter kit” statements presented in this document are offered to “jump start” the dialogue at February 8, 2007 Strategic Directions Workshop and make the most of the time available. Each of them relates to a guiding philosophy or an operational standard that has been abided by for some time. Each also relates to one of the following three themes; which represent “must have” characteristics for a sustainable multi-participant public sector program:

- a) Authorizing Environment (political legitimacy and support),
- b) Public Value (clear statement(s) of social purpose), and
- c) Operational Capacity (bundling of support elements across multiple organizations)

The Staff Coordinator compiled an initial listing of “starter kit” statements, nearly fifty in all. The numbers beside each statement relate to the original listing. The original listing of statements was presented to the Coordinating Committee for comment at its meeting on December 21, 2006. The comments received from the Committee were then shared with the Policy Board for comment at its meeting on January 17, 2007. Some of the longer statements are accompanied by a “short version” statement, which will be used during the facilitation exercises at the Strategic Directions Workshop. If there are any questions about the meaning of a particular “short” statement, participants are encouraged to refer to the corresponding “long” version stated in this document or any modifications agreed upon at the Workshop. A clean list of the “starter kit” statements that will be used at MetroGIS’s February 2007 Strategic Directions Workshop can be viewed in Attachment 1.

Eighteen of the initially suggested statements were accepted by the Coordinating Committee and Policy Board “as is” and are listed in Part 1: “*Statements Accepted As Is, No Changes Suggested*”, beginning on page 3. These statements will be in clear view during the Workshop activities and identifiable as acceptable “as is”. They are not intended to be a topic of discussion unless a particular statement(s) requires modification as a result of discussion that arises at the Workshop.

None of the other initially suggested statements was rejected as out-of-character with current preferences but in some instances simplification or clarification was requested. Each of these statements is listed in Part 2: “*Statement Substance Accepted, but Clarification Suggested*”, beginning on page 4. Suggested revised language is offered along with the initially suggested statement. These statements will be reviewed at the Workshop to insure there is consensus on the underlying concept. Part 2 also contains a listing of known emerging opportunities and previously suggested new activities for MetroGIS to consider pursuing. All of these statements are intended to be subjects of discussion at the Workshop. Discussion at the Workshop is suggested to insure there is clear direction regarding all desired future activities.

What’s Working and What’s Not: A component of the Strategic Directions Workshop involves identifying “what is working” and “what can be improved”. Again, to expedite discussion, comments to these ends that have been made in various MetroGIS venues and during previous evaluations have been summarized and included with the most closely aligned “starter kit” statement. These comments are prefaced by “Working” or “Could be Improved?” and have been paraphrased by the MetroGIS Staff Coordinator.

II. “STARTER KIT” STATEMENTS

Notes to Reader: In those cases where the actual statement is longer than preferred for the facilitation processes to be used at the Strategic Directions Workshop, a “short” version is provided in *(parentheses and bold italics)* along side the longer version which is shown in **regular bolded** font. The numbers to the left of each statement correspond to the complete list of initially suggested statements provided in Attachment 2. Those statements that are not listed in Part 1 are listed Part 2. A statement preceded by an (*) represent potential new direction (outcome, guiding principle, and operating standard, or activity).

Part 1: Statements Accepted As Is, No Changes Suggested

(The following “acceptable as is” statements will be identifiable during the Workshop. If the need arises, any or all can be revisited during the Workshop. The subject of each of these statements is also being achieved and/or is working well.)

A. Desired Outcomes

- A1. Improved participant operations
- A3. Reduction of participant costs

B. Guiding Principles and Operating Standards

- B4. Have active involvement of policy makers to set policy direction
- B5. Rely on consensus on policy decisions fundamental to long-term success (*have consensus-based decision making*)

C. Activities

- C1. Develop and maintain regional solutions to identified common information needs
- C2. Develop standards for GIS content, data documentation, and data management for regional solutions to MetroGIS-endorsed common information needs
(Develop and foster adherence to standards)
- C3. Operate an Internet-based tool (DataFinder) for discovering and retrieving geographic data
(Operate an effective data discovery and delivery mechanism)
- C4. Provide a forum for knowledge sharing
- C6. Facilitate data sharing agreements among MetroGIS stakeholders
- C7. Foster wide-spread data sharing
- C8. Maintain liaison relationships with interests that have similar objectives
(Note: statement C17 is covered by statement)
- C11. Support a metro-wide structure that effectively represents all key stakeholder interests
(Have Metro-wide structure involving all key interests)
- C13. Advocate for MetroGIS needs and desires to State and Federal policy makers
- C14. Document stakeholder benefits

Part 2: Statement Substance Accepted, but Clarification Suggested

A. Desired Outcomes

- A2. Improved stakeholder effectiveness in achieving community goals, enhancing their constituents' quality of life, and improving their economic competitiveness.

Suggested revision: **Improved stakeholder effectiveness in achieving their core functions.**

Working: Yes. MetroGIS's efforts have resulted in regional solutions to common needs that are improving efficiencies, reducing redundancies and improving decision support. (Nine testimonials and results of Performance Measurement corroborate findings.)

Could be Improved? Yes.

a) *In the past, the core stakeholder community has been local and regional government interests.*

Questions: *Should the core stakeholder community be expanded? Whose organizational goals should be drive collaborative efforts?*

b) *There has been slower growth than desired in number of organizations publishing data via to DataFinder. The need for increased outreach was identified in the 2006 Performance Measurement Report².*

- A4*. Enhanced capacity resulting from partnering

Suggested revision: **Expanded resource availability through partnering**

Comment: To date, 10 organizations are voluntarily supporting 23 custodial roles and responsibilities (see Attachment A to Attachment 2, page 18). The next-generation of collaborative solutions to common needs may need to involve organizations that are not currently serving in this capacity. The Policy Board's preference to explore public-private partnership opportunities has the potential to expand resources to address common needs beyond that possible with only public sector involvement.

- A5*. Improved capacity for cross-jurisdictional decision making

Suggested revision: **Enhanced effectiveness for cross-jurisdictional decision making**

Comment: Significant progress has been made to implement collaborative regional solutions to common information needs, which have, in turn, improved capacity to address issues that involved multiple jurisdictions, according to several testimonials provided by MetroGIS stakeholders.³ Additional capacity is desired for a variety of topic areas for which regional solutions do not currently exist. (See Item C18)

B. Guiding Principles and Operating Standards

- B1. **Build Once, Share Many Times**

(Note: C11 combined with this statement.)

Working: Yes. Access, without fee, to licensed data by the government community and data sharing, in general, are essentially taken for granted among participants.

- B2. **Secure Champions**

Suggested revision: **Have advocates among policy makers, management, and technical staff within organizations key to long-term success of MetroGIS. (Have many champions with diverse perspectives)** (Note: Item C10 and C15 combined into this item)

Working: Yes. Champions exist among individuals at the policy, management, and technical levels in many key organizations for the collaborative vision and objectives pursued by

MetroGIS. There is no known opposition. The membership of the Policy Board and Coordinating Committee include advocates from all key stakeholder constituencies. The leadership of the Policy Board and Coordinating Committee are also engaged and supportive of the vision. In 2006, the Metropolitan Council corroborated an earlier finding that supporting MetroGIS's "fostering collaboration" is an appropriate responsibility for the Council.

Could be Improved? Yes. Additional outreach and education is desirable to nurture new advocates and next generation leadership among all perspectives

- B3.** Have Broad Support of Vision and Expectations
Suggested revision: Have support of MetroGIS's desired outcomes, policies, and activities by core stakeholder organizations. (Have broad support of vision and objectives).
(Note: Portion of Item C9 combined with this item)

Working: Yes.

Could be Improved? Yes. Additional outreach and education is desirable to nurture new advocates and next generation leadership among all perspectives

- B6.** Represent Diverse Perspectives
Suggested revision: Include all relevant and affected perspectives, dominated by none, in decision making critical to long-term success. (Have all relevant and affected perspectives)
(Note: Portion of C9 combined with this statement.)

Working. This philosophy complements and reinforces the practice of relying upon consensus-based decisions (C12) to achieve voluntary acceptance of roles and responsibilities by willing organizations to support endorsed regional solutions. There has been good attendance at meetings, workgroups, and special events. In the ten years that MetroGIS has existed, no meeting has been canceled or postponed due to lack a quorum.

- B7.** Maintain Focus on Common Business Information Needs
Suggested revision: Focus on needs common to key stakeholders and those both critical to society and important to a significant subset of stakeholders. (focus on common needs)
(Note: Complimentary to Item C18)

*Could be Improved/Emerging Opportunity?: In the past, the concept of common information need was defined as being applicable to all five core stakeholder constituencies – cities, counties, metropolitan government, school districts, and watershed districts. **Question,** should the concept of "critically important from a societal perspective" be utilized to define what is in scope for MetroGIS's efforts, such as Emergency Services and Public Health? These critical but possibly not common needs, are nevertheless important to a significant subset of stakeholders. MetroGIS should also reevaluate previously defined common information needs which have not been addressed to determine if they are still important.*

- B8.** Focus on Stakeholder Benefits
Suggested revision: Focus on collaborative policies, programs, and initiatives that have the promise of improving stakeholder operations. (Focus on stakeholder benefits)

*Could be Improved? Stakeholder testimonials, or qualitative measurement, to benefit received from MetroGIS's efforts are currently the only known way to measure whether MetroGIS's efforts are having a positive impact on the operations stakeholder organizations. A preference for use of quantifiable measures in addition has been recognized but the "how" has not been defined. **Question,** should measurement of benefits be restricted to improvements to internal efficiencies of key stakeholder organizations? If no, what other measures are desired?*

B10. Acknowledge Fair-Share Contribution in several forms (data, people, equipment, and/or funds) (Note: Related to C13 and C14. Item C18 combined with this item.)

Working: Yes. MetroGIS's 1998 Fair Share Financial Model initiative⁴ demonstrated that sustainable regional solutions generally require tangible and intangible contributions in various forms, contributions that also vary widely from organization to organization but are nevertheless all critical to the sustainability of the overall solution. To date, 10 organizations are voluntarily supporting 23 custodial roles and responsibilities (see Background Information Packet). More importantly, there has been a general recognition that there is no need to document or recover these support costs because they represent, at most, a slight extension of the tasks the organization would be supporting anyway without MetroGIS's efforts. A benefit of pursuing regional solutions is that the custodian organizations are able to forego any efforts that duplicate effort of another regional custodian. In the long run, the regional solutions build trust in the data and minimize duplication of effort.

Supporting MetroGIS's "Fostering Collaboration" Function is among the ten (10) above-referenced regional custodial roles. This is the only support role that is comprises a process, as opposed to a product. The Metropolitan Council accepted support of this role in 1996 in accordance with its role as a principle sponsor of MetroGIS.

B12. Rely on Voluntary Compliance with Endorsed Standards and Procedures (Voluntary compliance with standards)

Working: Yes. The cross-jurisdictional nature of MetroGIS enforces the need for "voluntary" compliance with standards.

Could be Improved? Yes. Additional outreach and education is desirable to expand understanding of potential value to organizations not fully leveraging best practices and solutions implemented by MetroGIS.

B13. Align with Internal Business Needs

Suggested revision: Align custodian roles and responsibilities for regional solutions with stakeholders who are willing, have an internal business need, and have adequate resources. (Align regional solutions with willing custodian organizations) (Note: C17 combined with this statement.)

Working: Yes. To date, 10 organizations are voluntarily supporting 23 custodial roles and responsibilities (See page 18, Attachment A to Attachment 2).

Could be Improved? Yes.

- a) Although ten regional solutions have been implemented, where a clear and willing custodian(s) exists, there are also several previously-defined common information needs for which a solution has not been implemented because no custodian has been identified to lead the evaluation of options (e.g., rights to property). Current practice precludes asking an organization to take on support of a regional solution, unless it perceives an internal business need to do so. Addressing unresolved needs may require new principles and possibly establishment of new organizational responsibilities.*
- b) A longer than desired process is involved to gain critical mass when involvement of many organizations is required (e.g., addresses of occupiable units) and when non-traditional users (e.g., emergency preparedness) are critical stakeholders.*
- c) There remains a need for additional outreach and education, although to a much lesser degree than in the past, to communicate that the Metropolitan Council is a partner in MetroGIS and does not unilaterally decide MetroGIS's vision or priorities. These are defined by the stakeholder community through collaborative processes. The Council has accepted the role of supporting MetroGIS's "foster collaboration" but does not dictate the outcome of this support.*

- B14.** Equity is defined on an organization-by-organization basis and exists if the collaborative solution is more efficient than pursuing the solution on one's own.

Suggested revision: **Regional or collaborative solutions to common needs should be pursued when more efficient than pursuing as individual organizations. (Pursue collaborative solutions when more efficient option)** (Note: C15 combined with this statement.)

Working: Yes. As of this writing, eight regional data solutions, a one stop data search and delivery application, several best practices and a forum for knowledge sharing have been voluntarily implemented based upon this guiding principle.

Could be Improved? Yes. There a need, albeit less in the past, for further communication that “equity” does not mean “equal” and that no organization is asked to perform a task for the community for which they do not have a internal business need. As noted in statement C10, sustainable regional solutions generally require tangible and intangible contributions in various forms, contributions that also vary widely form organization to organization but are nevertheless are all critical to the sustainability of the overall solution. The guiding principle here is that it is up to each candidate custodial organization to decide if they have sufficient internal need and operational capacity to accept a custodian role. In other words, the community’s need does not supersede that of any particular organization. It should be noted, that quantitative measures have generally not been utilized because of the vast differences in business procedures among the producers and because use of qualitative measures appear to be more inline with defining “equity” as noted above.

- B16.** Encourage adding value to public sector assets provided it does not detract from the public sector objective.

Suggested revision: **Encourage enhancements to public sector solutions that benefit non-public interests, provided they do not detract from public sector objectives. (Encourage data enhancements from many sources)**

Working? Untested. New policy adopted by the Policy Board in January 2006 in conjunction with Beyond Government Users initiative⁵.

C. Activities

- C5. Collaborate to fund regional GIS research and development projects.**

Could be Improved: Yes. There is a need to clarify expectations for the organizations involved in funding Regional GIS projects and clarify the overall program objectives. Concern that arose the past two years as to the role of the funding organization in the process to decide the funding allocations must be equitably resolved or the program will potentially lead to tensions that could undermine the broader objectives of MetroGIS’s efforts.

The current rules were adopted in February 2006. They attempt to balance the need for the funding organization to be accountable for use of the funds with the community’s priorities for collaboration to address common geospatial needs. Feedback received related to the 2006 funding process indicates there may be a need to further clarify the funding rules as well as the broader program objectives.

\$22,000 was approved for the 2005 and 2006 program years and again for the 2007 program. These funds have been provided by the Metropolitan Council as a component of the “foster collaboration” function supported by the Council. In response to concerns that arose with the 2005 program, the decision-making process to fund Regional GIS Projects was modified for the 2006 funding cycle to include review as “concept” and “final” proposals.

The current rules call for the Coordinating Committee and Policy Board to evaluate whether a particular proposal is a “good” use of public resources, offer advice to the proposers on ways to improve their proposals, and offer advice as to the relative priority of multiple proposals. The funding guidelines state that proposals “must provide clear benefit to the MetroGIS community, whether via research or development of a product. The funding organization must be able to recognize a benefit to itself, which depending upon the nature of the proposal may be tangible and/or intangible.”

C12. Waive cost recovery for data development expenses

Suggested revision: **Reduce or eliminate recovery of data development expenses.**

Working. Yes: *Agreements for access without fee to parcel and street centerline data are resulting in significant sharing of these data which in turn are resulting in improved data and improved internal efficiencies of the user organizations.*

Could be Improved? Yes.

a) Comments received from the Coordinating Committee call for increasing awareness and buy-in to the idea that GIS operations cannot be justified through a direct return in terms of revenue generated; they need to be seen as a cost of doing business in today's world with today's technology and part of the internal business infrastructure.

b) In response to less progress than desired to acknowledge that cost recovery practices (for data development) may be less valuable than open sharing of data, in particular, commonly needed data, the Policy Board, at its January 17, 2007 meeting concluded that it may be time to revisit intellectual property rights-related policies that currently drive the access rules and set a fee for access by non-government entities. A survey of current practices and revenue proceeds from parcel data sales was requested.

C16. Maintain an Institutional Memory

Suggested revision: **Maintain a thorough and searchable institutional memory (*Maintain an Institutional Memory*)**

Working: *Yes. Resources are involved in maintaining a useful institutional memory (e.g., schedule, meeting summaries, www.metrogis.org, and project summaries). To do so, the effort must be intentional and an expectation of the support team. In each of the previous Business Planning initiatives, this topic has been identified as a critical function and an expectation. Intentionally maintaining an institutional memory has also been found to be a characteristic of successful collaboratives (see pages 57 and 67 of the document at http://www.metrogis.org/documents/articles/lessons_entire.pdf.)*

(The following activities have been suggested in a number of MetroGIS-related venues over the past few years as opportunities MetroGIS should consider pursuing.)

C18*. Add more items to the list of MetroGIS-endorsed common information needs (Note: complimentary to C7)

C19*. Advance idea that data is infrastructure (key asset)

C20*. Advocate for the creation of a Statewide equivalent of MetroGIS

Suggested revision: **Advocate for alignment of principles and policies guiding MetroGIS with those of the state and GIS/LIS. (*Seek alignment of MetroGIS efforts with state GIS initiative*)**

Coordinating Committee Comment: *The underlying idea is that for MetroGIS to be strong, the statewide support of GIS needs to be strong – this way they can empower each other. Conversely, lack of an appropriate organizational structure at the state level has resulted in the inability to seamlessly aggregate solutions defined for the Metro Area into a statewide fabric that supports wide spread sharing of geospatial data.*

C21*. Adopt standards and processes for developing and sharing commonly needed GIS programs, applications and services. (*Pursue commonly needed GIS applications*)

Comment: The topic was identified in the 2003-2005 Business Plan as an objective. Unfortunately to the complexity of the topic area, the community has had difficulty identifying clear and appropriate objectives for the role for MetroGIS regarding application-related opportunities and needs.

C22*. Make available a comprehensive set of applications running on MetroGIS-endorsed regional datasets. (*Expand for endorsed regional solutions to include applications*)
(*Compliments E21*)

C23*. Engage non-traditional users

Comment: There is need for dialogue with key individuals among non-traditional users (e.g., emergency preparedness community) to clearly understand geospatial needs and opportunities that would be appropriate for MetroGIS to pursue. (Compliments E31)

C24*. Provide for users to contribute data directly to MetroGIS endorsed regional datasets (*Facilitate user contributions to regional solutions*)

C25*. Pursue public-private partnerships to address common information needs

C26*. Pursue technology interdependencies (shared services) among organizations (*Pursue technology interdependencies*)

C27*. Work with adjacent counties (beyond seven-county, metropolitan area) to ensure that their data is readily available and compatible with that endorsed by MetroGIS. (*Pursue data compatibility beyond Metro Area*)

Recommendations of the Beyond Government Users Workgroup (*See Attachment 4 for a short explanation of each of the following proposals*):

C28*. Foster Statewide Adoption of Principles that Underpin MetroGIS (*same as E20*)

C29*. Foster an Open Source Data Model

C30*. Implement ApplicationFinder Concept (*demonstration project funded by MetroGIS Dec.2006*)

C31*. Foster a Marketplace for Geospatial Resources

C32*. Expand Policy Board to Include Non-Government Interests

III. Imagining Possibilities: The Next Frontier for Geographic Information Technology

To aid in framing discussion for its February 8, 2007 Strategic Directions Workshop, MetroGIS hosted a forum on June 1, 2006, entitled “*Imagining Possibilities: The Next Frontier for Geographic Information Technology*”. **Participants of the February 8th Workshop are encouraged to review the complete Imagining Possibilities summary document prior to the Workshop.** The summary document can be viewed at http://www.metrogis.org/specialevents/techpossibilities/FinalForumSummary_Web.pdf. An overview of the forum results follows.

Specifically, the purpose of the June 1 forum was to identify a range of technology possibilities related to enhancing the sharing of and effectively using geospatial data and information that is important to the day-to-day operations of the organizations that comprise the MetroGIS community.

Nearly 250 individuals attended this event. It was designed around the four keynote speakers, who are respected nationally and internationally within the geospatial community. They were invited to share their visions of capabilities that will exist within the next five years related to/as a result of the use of geographic information technology.

Together, the keynote speakers provided an amazing diversity of perspectives and “big ideas” regarding several aspects of the future of geographic information technology – the tools and applications themselves, standards needed to fully capitalize on the technology, and organizational structures needed to fully capitalize on the technology.

Some of the “big ideas” shared included:

- GeoWeb – Locating information via Internet will increasingly be by way of maps, as opposed to by content (URL), and the GIS community will play an increasingly important role in the evolution of the Internet as an information and knowledge sharing resource.
- “First person geography” and the “Tricorder” vision -- Location based services, capable of accessing and integrating a wide range of data for a particular “place,” will allow people to increase their standard of living and be more efficient with resources because they will have information currently invisible to apply in real-time use during their day-to-day activities.
- Wide adherence to agreed upon standards, not only pertaining to data content but also to applications and access protocol, is critical to realizing “Tricorder” vision – common view of the Earth.
- Entrepreneurial investment can play an increasingly important role as a partner to meet application needs of government but to do so, restrictive data access policies must be revisited (e.g., investigate Australian model of public domain geospatial data funded via deed recording fee).
- A large shift toward producing products and services for non-specialist users and opportunities for user-defined contributions has begun requiring Web interfaces, data content, and data descriptions to be more user friendly/intuitive if they are to become/remain “go to” sites.
- To ensure harmony, yet respect diversity, more inclusive models of stakeholder governance will increase.
- Collaborative solutions to common geospatial-related needs that have already been achieved in the seven-county, Minneapolis-St. Paul Metropolitan Area are as good as it gets anywhere and, as such, this area is well positioned to take advantage of the geospatial technology advances on the horizon.

ATTACHMENT 1

Listing of “Starter Statements” for the Strategic Directions Workshop

“Starter Kit” Statement	Short Version (<i>actual is longer than desired</i>)
<p><i>Notes:</i></p> <p>1) Bolded statements have been found to be acceptable “as is”. Each of the other statements is a suggested revised version in response to comments received from the Coordinating Committee and Policy Board.</p> <p>2) <i>Statements in italics</i> are suggested new activities.</p>	
<i>Outcomes</i>	
Improved participant operations	
Reduction of participant costs	
Improved stakeholder effectiveness in achieving their core functions	
Expanded resource availability through partnering	
Enhanced effectiveness for cross-jurisdictional decision making	
<i>Guiding Principles and Operating Standards</i>	
Have active involvement of policy makers to set policy direction	
Rely on consensus on policy decisions fundamental to long-term success	Have consensus-based decision making
Build Once, Share Many Times	
Have advocates among policy makers, management, and technical staff within organizations key to long-term success of MetroGIS.	Have many champions with diverse perspectives
Have support of MetroGIS’s desired outcomes, policies, and activities by core stakeholder organizations.	Have broad support of vision and objectives.
Include all relevant and affected perspectives, dominated by none, in decision making critical to long-term success.	Have all relevant and affected perspectives
Focus on needs common to key stakeholders and those both critical to society and important to a significant subset of stakeholders	Focus on common needs
Focus on collaborative policies, programs, and initiatives that have the promise of improving stakeholder operations.	Focus on stakeholder benefits
Acknowledge fair-share contribution in several forms (data, people, equipment, and/or funds)	Acknowledge fair-share contribution in several forms
Rely on Voluntary Compliance with Endorsed Standards and Procedures	Voluntary compliance with standards
Align custodian roles and responsibilities for regional solutions with stakeholders who are willing, have an internal business need, and have adequate resources	Align regional solutions with willing custodian organizations
Regional or collaborative solutions to common needs should be pursued when more efficient than pursuing as individual organizations.	Pursue collaborative solutions when more efficient option
Encourage enhancements to public sector solutions that benefit non-public interests, provided they do not detract from public sector objectives.	Encourage data enhancements from many sources
<i>Activities</i>	

“Starter Kit” Statement	Short Version (<i>actual is longer than desired</i>)
<i>Notes:</i>	
1) Bolded statements have been found to be acceptable “as is”. Each of the other statements is a suggested revised version in response to comments received from the Coordinating Committee and Policy Board.	
2) <i>Statements in italics</i> are suggested new activities.	
Develop and maintain regional solutions to identified common information needs	
Develop standards for GIS content, data documentation, and data management for regional solutions to MetroGIS-endorsed common information needs	Develop and foster adherence to standards
Operate an Internet-based tool (DataFinder) for discovering and retrieving geographic data	Operate an effective data discovery and delivery mechanism
Provide a forum for knowledge sharing	
Facilitate data sharing agreements among MetroGIS stakeholders	
Maintain liaison relationships with interests that have similar objectives	
Support a metro-wide structure that effectively represents all key stakeholder interests	Have Metro-wide structure involving all key interests
Advocate for MetroGIS needs and desires to State and Federal policy makers	
Document stakeholder benefits	
Maintain a thorough and searchable institutional memory	Maintain an institutional memory
Collaborate to fund regional GIS research and development projects	
Reduce or eliminate recovery of data development expenses	
<i>Add more items to the list of MetroGIS-endorsed common information needs</i>	
<i>Advance idea that data is infrastructure (key asset)</i>	
<i>Advocate for alignment of principles and policies guiding MetroGIS with those of the state and GIS/LIS</i>	<i>Seek alignment of MetroGIS efforts with state GIS initiative</i>
<i>Adopt standards and processes for developing and sharing commonly needed GIS programs, applications and services.</i>	<i>Pursue commonly needed GIS applications</i>
<i>Make available a comprehensive set of applications running on MetroGIS-endorsed regional datasets.</i>	<i>Expand +endorsed regional solutions to include applications</i>
<i>Engage non-traditional users</i>	
<i>Provide for users to contribute data directly to MetroGIS endorsed regional datasets</i>	<i>Facilitate direct user contributions of data to regional solutions</i>
<i>Pursue public-private partnerships to address common information needs</i>	
<i>Pursue technology interdependencies (shared services) among organizations</i>	<i>Pursue technology interdependencies</i>
<i>Work with adjacent counties (beyond seven-county, metropolitan area) to ensure that their data is readily available and compatible with that endorsed by MetroGIS.</i>	<i>Pursue data compatibility beyond Metro Area</i>
<i>Foster an Open Source Data Model</i>	
<i>Implement ApplicationFinder Concept</i>	
<i>Foster a Marketplace for Geospatial Resources</i>	
<i>Expand Policy Board to Include Non-Government Interests</i>	

ATTACHMENT 2

Initially Suggested “Starter Kit” Statements Prepared by MetroGIS Staff in November 2006 in Preparation for the February 2007 MetroGIS Strategic Directions Workshop

Introduction

Participants at the MetroGIS Strategic Directions Workshop will focus their discussion on two questions:

1. Activities: What should MetroGIS be doing in the next 3-5 years?
2. Outcomes: What would be the result if MetroGIS does these things?

In preparation for the workshop, participants are asked to meet with relevant people in their organization to consider these questions. The following “Starter Kit” is provided to stimulate thinking by participants and their organizations prior to the workshop. It includes a listing of key current MetroGIS activities and potential new activities that some have already suggested; and current desired outcomes as well as potential new desired outcomes. To expedite discussion at the Strategic Directions Workshop, the Coordinating Committee and Policy Board will each be asked at their meetings prior to the Workshop to identify any of the following statements for which any interest has a question or concern.

“Starter Kit” Statements

The following statements are offered to expedite identification of any issues or concerns with current MetroGIS practice and to jump start discussion of several new opportunities for MetroGIS’s leadership to consider. These listings are not exhaustive but hopefully cover all significant elements. The “new opportunities” have been identified in a variety of venues over the past year and are in *italics and denoted with an asterisk (*)*. These listings are also not intended to reflect an order of relative importance. The setting of priorities will be an activity at the February 8, 2007 Strategic Directions Workshop.

A. Desired Outcomes:

- A1. Improved participant operations
- A2. Improved stakeholder effectiveness in achieving livable community goals, enhancing their constituents’ quality of life, and improving their economic competitiveness
- A3. Reduced participant costs

*A4. *Enhanced capacity resulting from partnering*

*A5. *Improved capacity for cross-jurisdictional decision making*

B. Guiding Philosophies and Policies:

- B1. Build Once, Sharing Many Times
- B2. Secure Champions
- B3. Have Broad Support of Vision and Expectations
- B4. Have Active Involvement of Policy Makers to Set Policy Direction
- B5. Rely on Consensus on Policy Decisions Fundamental to Long Term Success
- B6. Represent Diverse Perspectives
- B7. Maintain Focus on Common Business Information Needs
- B8. Focus on Stakeholder Benefits
- B9. Involve all relevant and affected parties, dominated by none
- B10. Acknowledge Fair-Share Contribution in several forms (data, people, equipment, and/or funds)
- B11. Share Investments Made By One Government Entity With Other Government Entities
- B12. Rely on Voluntary Compliance With Endorsed Standards and Procedures
- B13. Align with Internal Business Needs
- B14. Equity is defined on an organization-by-organization basis and exists if the collaborative solution is more efficient than pursuing the solution on one’s own
- B15. Contribution of assets to a collaborative solution assumes all parties view the transaction as equitable and relevant to their needs

- B16. Encourage adding value to public sector assets provided it does not detract from the public sector objective
- B17. Rely upon willing stakeholders with adequate capacity to voluntarily support components of endorsed regional solutions to common information needs
- B18. Rely on Metropolitan Council to support MetroGIS “foster collaboration” function

C. Activities:

- C1. Develop and maintain regional solutions to previously identified common information needs
- C2. Develop standards for GIS content, data documentation, and data management for regional solutions to MetroGIS-endorsed common information needs
- C3. Operate an Internet-based tool (DataFinder) for discovering and retrieving geographic data
- C4. Provide a forum for knowledge sharing
- C5. Collaborate to fund regional GIS research and development projects
- C6. Facilitate data sharing agreements among MetroGIS stakeholders
- C7. Foster wide-spread data sharing
- C8. Maintain liaison relationships with interests that have similar objectives
- C9. Secure broad support for vision and policies
- C10. Secure elected officials as policy makers and advocates for MetroGIS
- C11. Support a metro-wide, structure that effectively represents all key stakeholder interests
- C12. Waive cost recovery for data development expenses
- C13. Advocate for MetroGIS needs and desires to State and Federal policy makers
- C14. Document Stakeholder Benefits
- C15. Promote Understanding (*among policy makers*)
- C16. Maintain an Institutional Memory
- C17. Connect with other Spatial Data Infrastructure Initiatives with similar objectives

(The following activities have been suggested in a number of MetroGIS-related venues over the past few years as opportunities MetroGIS should consider pursuing.)

- C18*. Add more items to the list of MetroGIS-endorsed common information needs*
- C19*. Advance idea that data is infrastructure (key asset)*
- C20*. Advocate for the creation of a Statewide equivalent of MetroGIS*
- C21*. Develop standards and processes for developing and sharing commonly needed GIS programs, applications and services.*
- C22*. Make available a comprehensive set of applications running on MetroGIS-endorsed regional datasets*
- C23. Engage non-traditional users*
- C24. Provide for users to contribute data directly to MetroGIS endorsed regional datasets*
- C25. Pursue public-private partnerships to address common information needs*
- C26. Pursue technology interdependencies (shared services) among organizations*
- C27. Work with adjacent counties (beyond 7-county area) to ensure that their data is readily available and compatible with that endorsed by MetroGIS*

Recommendation of the Beyond Government Users Workgroup (December 2006):

- C28*. Foster Statewide Adoption of Principles that Underpin MetroGIS (same as E20)*
- C29*. Foster an Open Source Data Model*
- C30*. Implement ApplicationFinder Concept (demonstration project funded by MetroGIS Dec.2006)*
- C31*. Foster a Marketplace for Geospatial Resources*
- C32*. Expand Policy Board to Include Non-Government Interests*

ATTACHMENT 3

Components of the Strategic Triangle (For Creating Public Value)

The following is an excerpt from a memorandum written by the MetroGIS Staff Coordinator, Randall Johnson, on November 18, 2005 to colleagues who had expressed interest in his experience participating in the “Innovations in Governance” Program - Kennedy School of Government October 30 –November 4, 2005.

Introduction

I wrote this document to reflect on my experience participating in the Kennedy School of Government’s “Innovations in Governance” Program and share insight gained related MetroGIS’s upcoming business and policy planning initiatives.

In short, the program was outstanding on several levels. The diversity of cultures, range of professional expertise, and range of social standing possessed by the 49 participants combined with highly respected and knowledgeable professors (who are also very gifted at nurturing learning), resulted in a rich experience that was humbling, thought-provoking, rigorous, and on-target for issues and opportunities currently facing MetroGIS. The participants represented 5 continents and 18 countries. They included: the Russian representative to the World Bank’s Board of Directors, Crown Prince of Bhutan, national elected officials from several counties, state agency directors, NASA project manager for the next mission to Mars and numerous unit/program managers, each of whom brought a substantive challenge that involves partnering among several agencies to accomplish a common desired end.

Reasons For Attending “Innovations in Governance” Program

Specifically, I attended the “Innovations in Governance” Program to obtain constructive criticism and ideas for improving MetroGIS’s governance structure, in particular, with regard to:

1. Appropriateness and Effectiveness of MetroGIS’s Current Organizational Structure (policy makers from all core stakeholders establishing policy from a regional best practice perspective, as opposed to the perspective of any single stakeholder). *Public value sought:* Secure and sustain several multi-party partnerships to bundle operational capacity across organizations and support, as a coordinated enterprise, regional solutions to common geospatial needs; the ultimate purpose being to achieve public value that can not be otherwise achieved.
2. Equity Among Support Contributions. *Public value sought:* Insure that stakeholder contributions in support of regional solutions endorsed by MetroGIS are fairly borne by willing organizations with capacity and internal need (partnerships to secure needed operational capability across organizations). (See Attachment A for a listing of the 23 MetroGIS defined custodial responsibilities that are currently being supported by 10 different organizations.)

Teaching Method Used - Innovations in Governance Program

The “case study learning method” was the foundation for most of the lectures and all small group sessions (each participant had submitted a statement of their particular challenge to compete for admission to the program). The challenge statement that I submitted (available upon request) served as one of several topics deliberated in our respective study groups. It is interesting to note that of the 49 participants, MetroGIS’s situation possessed the only challenge that involved an existing organizational structure created expressly to address shortcomings in conventional governance regarding bundling of operational capacity across several organizations to address common needs. In addition, MetroGIS’s governance structure was called attention to because it possesses elements of all three components required for long-term success in an environment where bundling of organizational capacity across multiple organizations must occur to successfully achieve the desired end. Such environments were the central focus of the week long Innovations in Governance Program. The three critical components for success and relationships among them are referred to as the Strategic Triangle and are explained below.

During my study group’s deliberations of challenges cited for MetroGIS, I was asked to explain the public value sought to be achieved by MetroGIS’s efforts, established guiding principals, how political legitimacy was initially gained and sustained over time, and examples of how operating capacity has been assembled across multiple organizations via voluntary custodial commitments to support endorsed regional solutions. The two guiding principals that I shared follow, as both have been well documented and embedded in MetroGIS policy since its creation:

- 1) An organization is never asked to serve in a support role for the community for which it does not have an internal business need.
- 2) Solutions to common geospatial needs are sought to improve the efficiency and effectiveness of stakeholder operations and minimize overall cost to the taxpayer (e.g. viewed from the perspective of a regional enterprise).

Reflections on Constructive Criticism and Ideas Received

When I applied for admission to the Innovations in Governance Program, I believed that assuring equity among the participants required an economic model/quantitative solution by which contributions could be measured across the participating organizations. However, when my fellow program participants reinforced that whatever measure is used, it must be internal needs-based to effectively address matters of equity, the merit in the current practice - *“an organization-by-organization internal evaluation of overall benefit to cost of pursuing an objective on one’s own”* – was corroborated in large part because the form of these contributions (funding, data, personnel, and or equipment) vary among stakeholders as do their respective capacities to support these roles. The key concept being that if an organization has a business need to perform a particular function that is also important to the community and the benefit received for cooperating with others equals or exceeds the cost of supporting that role(s), then by definition, equity is achieved and, as importantly, reallocation of tax dollars from one organization to another is avoided, thereby also minimizing the overall cost to tax payer.

Constructive criticism was also received relative to the following matters, which the group concurred should receive immediate attention:

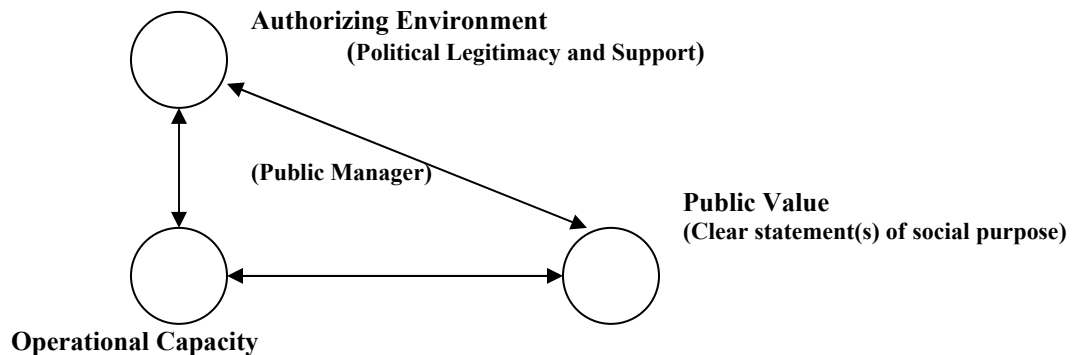
- 1) Clearly articulate why each custodian can or cannot justify continued participation [support regional solution(s)] in accordance with the current organization-centric equity evaluation policy,
- 2) Insure that all key stakeholders are clear that an organizational structure, capable of brokering and sustaining numerous inter-organizational partnerships to bundle operational capacity as if a single enterprise, is critical to achieving MetroGIS’s vision

Overview of Strategic Triangle and How MetroGIS’s Governance Structure Aligns

The Strategic Triangle is an analytic tool developed to assist public sector managers identify governance weaknesses that need to be resolved for partnership initiatives to flourish. This tool was the central focus of the Innovations in Governance Program. Several case studies were used to highlight the importance of each of the three core elements, which are illustrated in Figure 1, below, and assist the participants analyze their respective governance challenges.

MetroGIS’s governance structure was called attention to because it possesses elements of all three core components required for success. MetroGIS’s governance structure was also called out as an example of a successful initiative because it is now facing changes in its environment that require thoughtful attention to insure the desired public value continues to be attainable.

Figure 1: Strategic Triangle



Source: “Creating Public Value: Strategic Management in Government”, Mark H. Moore, Harvard University Press, 1995.

Examples of polices/actions taken by MetroGIS, which align with each component of the Strategic Triangle are as follows:

- 1) Public Value Sought – Substantive Policy
The goals of MetroGIS’s efforts seek are to provide “an ongoing, stakeholder-governed, metro-wide mechanism through which participants easily and equitably share geographically referenced data that are accurate, current, secure, of common benefit and readily usable for purposes of :

- Improving participant operations.
- Minimizing stakeholder expense and duplication of effort.
- Supporting cross-jurisdictional decision making."

(Source: MetroGIS Mission Statement - *adopted February 1996*)

Public value created through MetroGIS's efforts include:

- Support of effective regional solutions to common information needs create public value through improved organizational efficiencies for all stakeholders by substantially reducing time and effort required manipulation data prior to use. Secondly, moving the dialogue from debate over data sources to substantive policy needs and opportunities creates efficiencies that in turn create public value. (See Attachment A for a listing of the regional solutions that are in place. They involve 10 organizations, which are voluntarily performing 23 distinct support roles.)
- Support of a user friendly, one-stop, Web-based tool for discovery and access to geospatial data creates public value through improved organizational efficiencies for all stakeholders by substantially reducing time and effort required to find existing data produced by others and obtain it. In addition, data producers improve efficiencies by streamlining there data distribution support needs.
- Support of a forum for knowledge sharing creates public value by minimizing costly duplication of effort and improves trust and professional working relationships which, in turn, fosters an enabling environment for innovation critical to long term effectiveness.
- Secure data sharing agreements, which foster wide spread use of commonly needed geospatial data without fees for access, creates public value by encouraging the leveraging of existing investments thereby minimizing costly duplication of effort and fostering improved data quality through anomaly identification from many perspectives.
- Secure common licensing and related data access procedures creates public value by minimizing costly legal review and expediting of access to needed data.

2) Authorizing Environment – Securing Political Legitimacy and Support

- In 1996 the initial MetroGIS Resolution of Support was adopted by all core stakeholders endorsing the current mission statement and creating the Policy Board composed of policy makers representing all essential interests.
- Via two Business Planning initiatives (2000-2003 and 2003-2005) core stakeholders unanimously set collective direction and guiding principals to address common geospatial needs.
- MetroGIS's Operating Guidelines were unanimously adopted by Policy Board setting collaborative policy making expectations.
- MetroGIS's Performance Measurement Program seeks to insure that performance toward established public value-based objectives is continually monitored and modifications are made, as needed, to maintain relevancy to core stakeholders.
- Quarterly Policy Board meetings have been held for ten years and there has never been a meeting cancellation. Three of the initial members continue to serve.

3) Operational Capacity – Partnerships That Bundle Operational Capabilities Across Organizations

- Implementation of coordinated regional solutions, which are supported by several stakeholders as if a single enterprise, is recognized as a practical and cost efficient way to address numerous common needs that can not be met by any single organization.
- Voluntary acceptance of community-defined custodial roles and responsibilities for regional solutions by organizations both willing and able fosters an ethic of interdependence and cooperation, as well as, results in the best available data practices at the least cost to the taxpayer.
- Positive feedback from the participants of the November 15, 2005 forum to seek partnering suggestions from non-government entities is a sign of MetroGIS's maturity and a realization that further effectiveness to achieve common needs may be possible by partnering beyond the government community.

ATTACHMENT A TO ATTACHMENT 2

Contributions to Support MetroGIS Endorsed Regional Solutions

(Last Updated: November 17, 2005)

<p align="center">Established Partnerships</p> <p><i>To date, 10 organizations have assumed a total of 23 roles in support of endorsed regional solutions to common geospatial related needs of the community</i></p>	<p align="center"><u>Summary of Collaborative Roles</u> (Bundling Operational Capacity Across Organizations to Address Common Priority Needs)</p>
<p>(2 roles) County: Anoka Parcels</p> <p align="center">County/MCD Boundaries)</p>	<p>Produce and maintain parcel data in consistent format. Submit quarterly updates to regional custodian (Council) in regional format. (For detailed roles see www.metrogis.org/data/datasets/parcels/history_pub/policy_sumv2.0.pdf)</p> <p>Produce and maintain boundary data, submit quarterly updates to regional custodian (Council) in regional format. For detailed roles see www.metrogis.org/data/datasets/county_mcd/policy_summary.pdf)</p>
<p>(2 roles) County: Carver (Parcels, County/MCD Boundaries)</p>	<p>(All seven counties have agreed to assume responsibility for the same roles and responsibilities concerning the region parcel and city/county boundaries datasets. Their combined level of support is estimated to involve 20+ FTE. This effort includes surveyors, assessors, and GIS staff.)</p>
<p>(2 roles) County: Dakota (Parcels, County/MCD Boundaries)</p>	<p>(Counties use these data to manage property-related records and to support their tax collection responsibilities.)</p>
<p>(2 roles) County: Hennepin (Parcels, County/MCD Boundaries)</p>	
<p>(2 roles) County: Ramsey (Parcels, County/MCD Boundaries)</p>	
<p>(2 roles) County: Scott (Parcels, County/MCD Boundaries)</p>	
<p>(2 roles) County: Washington (Parcels, County/MCD Boundaries)</p>	
<p>(1 role) DNR - Land Cover</p>	<p>Manage regional database and collaborative process to acquire land cover data compatible with agreed upon data content standards. DNR uses this database to support a number of its metro area natural resources and wildlife management programs. Annual support is about .5 FTE. (For detailed roles see www.metrogis.org/data/datasets/land_cover/policy_summary.pdf)</p>

(1 role) University of Minnesota Population Center (Socioeconomic Characteristics)	Manage content of Socioeconomic Resources Website at www.datafinder.org/mg/socioeconomic_resources/index.asp . Annual support is about .2 FTE . (For detailed roles www.metrogis.org/data/info_needs/socioeconomic_characteristics/policy_summary.pdf)
(7 roles) Metropolitan Council (Three categories: data management, data distribution, and fostering regional collaboration)	<ul style="list-style-type: none"> ▪ Annual support for DataFinder and regional data custodian roles, combined about 1.25 FTE. ▪ 2005 budget to support Foster Collaborative Environment: 1.75 FTE and \$86,000.
⇒ Census Geography data	Produce census geography data at time of decennial census that align with other locally produced foundation geospatial data. (For detailed roles see www.metrogis.org/data/datasets/census/policy_summary.pdf)
⇒ County/MCD Boundary data	Assemble boundary data produced by counties into regional dataset. (See County Boundaries above for the specific roles)
⇒ Planned Land Use data	Develop and manage regional dataset. (For detailed roles see www.metrogis.org/data/datasets/planned_land_use/policy_summary.pdf)
⇒ Parcel data	Assemble parcel data produced by counties into regional dataset. (See County Parcels above for the specific roles.)
⇒ Street Centerline data	Contract with The Lawrence Group to maintain data to desired specifics. (For detailed roles see metrogis.org/data/datasets/street_centerlines/roles_respon_specs.pdf)
⇒ DataFinder (one-stop data distribution portal)	Maintain DataFinder and DataFinder Café's hardware and software platform and update metadata posted on DataFinder. (For details see Section 1.3.2 - www.metrogis.org/about/business_planning/bplan_0305.pdf)
⇒ Foster Collaborative Environment (<i>regional solutions to common geospatial needs</i>)	Facilitate collaborative decision-making structure, including business planning, performance measures activities, and agreements, as well as, outreach and advocacy efforts to encourage use of and feedback about adopted solutions and best practices. (For details see Section 1.3.2 - www.metrogis.org/about/business_planning/bplan_0305.pdf)
(Total of 23 roles supported by 10 different organizations)	

ATTACHMENT 4

MetroGIS

Cooperation, Coordination, Sharing Geographic Data



TO: Strategic Directions Workshop Participants
FROM: MetroGIS “Beyond Government Users” Workgroup
SUBJECT: Beyond Government Users – Partnering Opportunities
DATE: January 18, 2007

INTRODUCTION

Five prospective public-private partnership opportunities are explained herein. These opportunities were identified by the MetroGIS Beyond Government Users Workgroup to means to effectively address common geospatial needs.

The Workgroup respectfully requests that these five opportunities be considered as “Potential New Activities” at the MetroGIS Strategic Directions Workshop on February 8, 2007.

PROSPECTIVE PARTNERING OPPORTUNITIES

The five suggested public-private partnering opportunities are as follows:

- *Foster Statewide Adoption Of Principles that Underpin MetroGIS.*
- *Foster an Open Source Data Model*
- *Implement ApplicationFinder Concept (In progress - pilot project funded December 2006)*
- *Foster a Marketplace For Geospatial Resources*
- *Expand Policy Board Membership To Include Non-Government Interests*

Refer to Attachment A for a brief “opportunity statement” for each of these proposals and to the Reference Section for a summary of the process through which the subject proposals were developed.

PARTICIPANTS - BEYOND GOVERNMENT USERS WORKGROUP

The following individuals participated on the workgroup that developed the subject proposal. Each also participated in the November 2005 “Beyond Government Users” Forum at which the source ideas were identified (see Reference Section for more information about the Forum):

- John Carpenter, Excensus Ltd
- Will Craig, Center for Urban and Regional Affairs, U of M (*MetroGIS Coordinating Committee*)
- Jason Johnson, Welsh Companies
- Sally Wakefield, 1000 Friends of Minnesota (*MetroGIS Coordinating Committee*)

METROGIS POLICY BOARD DIRECTION

At the January 17, 2007 Policy Board meeting, the subject partnering opportunities were shared with the Policy Board to give the members a chance to identify any additional information desired before the community considers to the proposals at the Strategic Directions Workshop. Board members agreed that it would be helpful to know the extent to which counties are currently relying on revenues gained from cost recovery of parcel data development costs. Board members also agreed that it may be time for the Policy Board to revisit philosophy concerning cost recovery. Specifically, the notion was offered that the tax payer might benefit more from value added to the data and economic development resulting from use of the data if the data were more widely available.

Refer to the Reference Section for guidelines adopted by the Board at its January 2006 for pursuit of public-private partnering proposals.

RECOMMENDATION

That the participants of the Strategic Directions Workshop Policy Board identify the five partnering opportunities identifying herein as priorities for MetroGIS to pursue.

REFERENCE SECTION

PREVIOUS METROGIS POLICY BOARD DIRECTION

- 1) April 2005: The Policy Board recognized a need to explore the potential of collaborating with non-profit and for-profit interests to achieve needs common with the government community. In response, MetroGIS hosted a forum in November 2005 entitled “*Beyond Government Users: Future Directions for MetroGIS*”. (See http://www.metrogis.org/teams/pb/meetings/06_0118/forum_summary.pdf for a summary of the forum – who participated and the range of ideas identified.)
- 2) January 2006: The Board adopted the following principles to guide consideration of prospective public-private partnering proposals. Each of the subject proposals has been developed in accordance with these principles.
 - Value added to public sector assets from non-public sources is encouraged provided it does not detract from the public sector objective.
 - Contribution of assets to a collaborative solution assumes all parties view the transaction as equitable and relevant to their needs.
 - Contributions can be comprised of funds, data, equipment and/or people.
 - Equity is defined on an organization-by-organization basis and exists if the collaborative solution is more efficient than pursuing the solution on one's own.

Beyond Government Users Initiative - Defining Collaborative Partnering Opportunities

MetroGIS hosted the “Beyond Government Users” forum and follow-up workgroup efforts as a component of preparing for MetroGIS Strategic Directions Workshop scheduled for February 8, 2007.

- 1) Phase I: On November 15th, 2005 MetroGIS hosted the “Beyond Government Users: Future Directions for MetroGIS”. The Policy Board asked for this type of forum to be hosted at its April 2005 meeting.

The Forum summary report can be viewed at

http://www.metrogis.org/teams/pb/meetings/06_0118/forum_summary.pdf. Twenty-nine individuals attended, representing 27 for-profit and 2 non-profit interests. The attendees concluded that collaborative opportunities with government interests should be investigated in three topical areas:

- How can we work together to reduce costs?
- What innovations can we work together to develop?
- How can we promote a statewide GIS cooperative effort?

Forty-five candidate ideas were identified for consideration within these three topical areas.

- 2) Phase II: A Workgroup comprised of several individuals who attended the November 15, 2006 workshop met three times in August and September 2006 to mature ideas identified at the forum the forum. The group focused its efforts on five opportunity themes and developed detailed proposals for two of the five themes in accordance with the following principles established by the Policy Board at its January 2006 meeting to govern prospective partnerships with non-government interests (see the Prior Policy Board Consideration section).

ATTACHMENT A TO ATTACHMENT 3

Beyond Government Users Partnership Opportunities (To address common geospatial needs)

The purpose of MetroGIS's "Beyond Government Users" initiative was to investigate opportunities for partnering between non-government and government interests which serve the seven-county, metropolitan area to address common geospatial-related needs. The following "opportunities" were identified through a process that began with a forum¹ in November 2005. The forum was then followed by workgroup process through which several participants² of the forum refined those opportunities they believed to be the best and most achievable. Summaries of each of the following opportunities are provided in this Attachment:

- ***Foster Statewide Adoption Of Principles That Underpin MetroGIS.***
- ***Foster An Open Source Data Model***
- ***Implement Application Finder Concept***
- ***Foster a Marketplace For Geospatial Resources***
- ***Expand Policy Board Membership To Include Non-Government Interests***

Each of these proposals, to the extent currently conceived, is consistent with the Evaluation Criteria identified by the Policy Board at its January 2006 meeting:

- Value-added to public sector assets is encouraged provided it does not detract from the public sector objective.
- Contribution of assets to a collaborative solution assumes all parties view the transaction as equitable and relevant to their needs.
- Contributions can comprise of funds, data, equipment and/or people.
- Equity is defined on an organization-by-organization basis and exists if the collaborative solution is more efficient than pursuing the solution on one's own.

¹ A summary of the event can be viewed at www.metrogis.org/teams/pb/meetings/06_0118/forum_summary.pdf

² The Workgroup was comprised of John Carpenter, Excensus; Jason Johnson, Welsh Companies; Sally Wakefield, 1000 Friends of Minnesota; and Will Craig, U of M CURA

1. FOSTER STATEWIDE ADOPTION OF PRINCIPLES THAT UNDERPIN METROGIS

Leader drafter: Will Craig (Version 2, October 23, 2006)

What: MetroGIS was built on the principle that data should be shared among all stakeholders – at least governments and academia. It has facilitated sharing with the help of the Metropolitan Council as a regional custodian of data, self-defined standards, common licenses, and the DataFinder website. Equally importantly, MetroGIS has provided a forum for stakeholders to work together to identify problems of common interest and their solutions. Ways need to be explored to encourage similar principles and activities in Greater Minnesota.

Example: The Minnesota Department of Natural Resources has a very tough time getting local parcel data in central Minnesota, for two reasons: 1) lack of data standards and 2) every county has a unique licensing process. Local school and watershed districts have similar difficulties. Counties have a hard time both enforcing their license agreements and getting their data used by relevant stakeholders. Common access agreements would aid DNR as well as local school districts. Moreover, data standards would allow counties to share data with each other.

Why MetroGIS Cares: Many Metro entities straddle the metro/collar fringe, including E911. Other people working on similar goals might provide solutions we could use. Their endorsement of our efforts gives us gratification and glory.

Why Private Sector Cares: Business activities and opportunities do not stop at jurisdictional boundaries. This includes utilities and others.

Potential Options:

- State provides resources similar to what Metropolitan Council did for MetroGIS.
- MetroGIS and Governor's Council develop and market standard parcel license.
- Private sector is involved as the provider of parcel mapping services (e.g., ProWest has contracts with many counties for developing and supporting parcel mapping)
- Regional Development Commissions, where they exist, play the role of Metropolitan Council.
- Grassroots GIS user groups take the lead. The Pine-to-Prairie User Group may be the prime example. A nascent County GIS Directors group appears to be forming.
- More formalized cooperatives, something like the Central Minnesota Regional Technical Advisory Committee, which is developing a common portal for five counties and the City of St. Cloud.

2. FOSTER AN OPEN SOURCE DATA MODEL FOR METROGIS

Lead Drafter: John Carpenter (Version 1, November 1, 2006)

What: The linear pattern of GIS data development that characterized the early years of MetroGIS has changed. There is now a robust marketplace of public and private sector GIS application developers and users in the Twin Cities. With this growth has come an increasing interest in building upon parcel base data sets obtained through MetroGIS and the originating counties. They view the parcel geographies, for example, as a unique and stable backdrop for constructing various kinds of map overlays. In addition, property and land use attributes can be of considerable value in development of various kinds of GIS overlay products. In the course of developing these applications, developers are also discovering ways to augment and improve the source data based on other sources of information at their disposal.

At present, licensing restrictions do not permit parcel geographies to be incorporated into web-based applications and few if any of the improvements to the parcel attributes are finding their way back to the source data sets. Ways need to be explored to encourage collaborative development and sharing this area.

The Open Source software development model would seem to offer a well-accepted framework for collaborative public/private data sharing and data improvements in the Twin Cities GIS community. In

this framework, users are typically granted free access to the latest version of the application code and agree to share improvements they make to the software. The process is self-policing, meaning that a dedicated core of users undertakes a careful review of code changes to ensure that the software remains secure and reliable. The result of this collaboration of users is the very fast and affordable development of high quality technologies and software products.

How this could work: By applying the Open Source Data Model concept to parcel development, for example, the GIS user communities (both public and private) in the Twin Cities might cooperatively agree to post all corrections and improvements to the parcel geographies and attributes in exchange for less restrictive uses for the data, including incorporation parcel base raster images into web-based applications. A core group of users, operating under the auspices of the MetroGIS, would be responsible for assessing or rating incoming data changes. All user submissions would be kept in a separate, fully documented data warehouse for use by others. The counties would still have responsibility for ensuring the accuracy and reliability of the parcel data sets, but would be able to draw upon any of the contributed changes.

Why MetroGIS Cares: Building an active, collaborative base of GIS data user is at the core of the MetroGIS mission. Given limited public sector budgets and the growing interest and resources of non-public users, adoption of the Open Source development model seems not only reasonable, but essential.

Why Private Sector Cares: There is a significant cost to GIS application developers in reprocessing property and land use data sets to incorporate new construction changes, correct errors, or to fill-in missing field entries. Many of these costs are repeated each time an update is produced. Collaboration offers the potential to significantly reduce many of these costs.

Potential Benefits:

- Improved data quality and timeliness.
- Expanded access to parcel data for GIS application developers willing to return new or enhanced data sets deemed of value to others.
- Reduced costs for development and updating of core data sets.
- Expanded uses and market place exposure for parcel-based data that in turn increases the perceived public value and demand of this information.
- Implement effective ways to integrate data from multiple sources
- Investigate potential for processes to post suggested corrections for consideration by the custodian.
- Implement a process(es) to return improved data to the data stream.

3. IMPLEMENT APPLICATIONFINDER CONCEPT

The Workgroup concluded that the Regional GIS Project funded December 2006 and entitled “Geospatial Services Directory and Broker” is consistent with the intent of the November 2005 Forum participants and, therefore, the objective to foster consideration of this opportunity has been satisfied.

The in-progress pilot project calls of the Mn Land Management and Information Center (LMIC), in conjunction with the Metropolitan Airports Commission, to develop and implement a directory of shared geospatial web services and software components and tools for the MetroGIS stakeholder community. Specifically, the following capabilities will be developed:

- **A Catalog of Geospatial Services.** The catalog will be initialized with data produced from the Governor’s Council on Geographic Information (GCGI) Shared Geospatial Services survey.
- **Catalog Maintenance, Query and Search Tools.** A user interface that provides catalog maintenance, query, and search functions similar to those developed for the MN Geographic Data Clearinghouse.
- **Shared Service Use Demonstration.** An application broker that demonstrates the interactive use of LMIC’s Open Geographic Consortium (OGC)-compliant Web Mapping Services (WMS)

Image Server as an example of a hosted shared service that directly supports applications meeting MetroGIS business needs.

- **Geospatial Toolkit Library.** An on-line repository for applications and software code that is available to MetroGIS member organizations.

4. FOSTER A MARKETPLACE FOR GEOSPATIAL RESOURCES

Lead Drafter: Entire workgroup (August 29, 2006)

What:

This opportunity builds on the “Opportunity 2: Foster an Open Source Data Model for MetroGIS”. Realization of a geospatial resources marketplace concept, could greatly enhance geospatial data and application access options, with acquisition arrangements ranging from bartering to subscriptions. The marketplace should place special attention to fostering outsourcing of application needs, as well addressing the preferences of some users who will want to bring an application in-house to experiment with the code and functionality themselves. Another focus should be on applications and web services that are not part of the standard desktop suite (e.g., commercial GIS software).

How This Could Work/Example

To fully achieve the potential of the open source data model, the various sectors/interests need to better understand the geospatial resources of others and what might be valuable to their needs. A series of *focus groups* among the various interests is suggested to identify potential connections. All interests should be invited to participate, regardless of their current capabilities as their ability to contribute may not be readily identifiable at this time. Topics that should be explored include data produced and used as well as capabilities to use and produce geospatial products. The goal should be to expand the user community (market), not close it down when budget constraints exist or are pending.

Why MetroGIS Cares/Why Private Sector Cares

- Expanded access to the geospatial data resources would facilitate application development that, in turn, would create opportunity for the public and non-public sectors to leverage for their particular needs.
- Maintaining trust in data accuracy, completeness, and availability are critical components to achieving the fundamental objectives of MetroGIS - minimizing duplication of effort and broad leveraging of existing resources.
- Public-private leveraging of existing investments provides opportunities greater than either sector can achieve on its own.
- Expansion of the user base (regional data solutions) expands potential partnerships to pursue collaboratively other next-generation enhancements valuable to all.
- A distributed system of producers of property related data is suggested that creates a one-stop access point for parcel-related data produced by government and non-government interests alike.

Potential Options

TDB

5. EXPAND POLICY BOARD MEMBERSHIP TO INCLUDE NON-GOVERNMENT INTERESTS

Lead Drafter: Entire workgroup (August 29, 2006)

What:

Amend the Operating Guidelines to expand Policy Board membership and include one or more senior officials from non-profit and for-profit interests valuable to achieving MetroGIS’s vision and objectives.

Example

Expand the current eleven-person Policy Board, which is comprised of representatives from city, county, water management district, school district and regional governmental interests, to include one or more senior non-profit and for-profit officials.

Why MetroGIS Cares

Participation of leadership from the non- and for-profit communities on the Policy Board could result in collaboration opportunities valuable to government community that might not otherwise be identified. For instance, the presentation to the Policy Board in April 2006 by Professor Shekhar (http://www.metrogis.org/teams/pb/meetings/06_0419/Shekhar_presentation.pdf) has resulted U. S. Bank Corporation's investigating working the MetroGIS to address its emergency management needs.

Why Private Sector Cares

- Leverage investments to jointly address opportunities important to non-government as well as the MetroGIS communities.
- Improve efficiencies and service delivery
- Improve communication between the sectors concerns geospatial needs and opportunities.

Potential Options

TBD

ENDNOTES

¹ The three themes listed are the components of a concept called the Strategic Triangle, which is taught at the Kennedy School of Government. See Attachment 3 for more information.

² See http://www.metrogis.org/benefits/perf_measure/index.shtml

³ See <http://www.metrogis.org/benefits/testimonials/index.shtml> for more information.

⁴ See http://www.metrogis.org/about/business_planning/index.shtml#part3 .

⁵ See http://www.metrogis.org/about/business_planning/index.shtml#part1