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Interim report

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Project Narrative

Funding awarded through this CAP grant are being used to 1) develop a Consultant Task Description (CTD), allowing the Regional Resource Centers (RRC) to engage a professional consultant to assist in the development of an RRC business plan guideline and 2) develop business plans for the Eastern Idaho Regional GIS (EIRGIS) and Southeast Idaho GIS Users' Group (SEIGUG). The business plans address the following objectives:

1. The RRC business plan guideline is being developed that will improve the development of RRC business plans throughout Idaho and elsewhere.
2. The business plans for EIRGIS and SEIGUG will:
    a. Identify partners and resources
    b. Recommend:
        i. a balance of services and capabilities
        ii. an entity type, organizational structure, and governance type.
        iii. a physical location and/or virtual operation strategy
        iv. a communications and coordination approach with Idaho Geospatial Council, The Idaho Map (TIM) activities[1], and interaction with other RRC's.
        v. staffing strategies and technical architecture, as appropriate
    c. Provide a budget plan identifying potential funding sources
    d. Include a detailed implementation plan and proposed timeline with milestones

Summary of Project Activities

Since the award of the NSDI CAP funding, the investigators have made great progress and have currently met all proposed milestones. The development of RRC's in Idaho is a project that ultimately effects the entire GIS community in the state. Realizing this, we have made numerous efforts to encourage participation and input from all stakeholders. To facilitate this we have developed a website (http://giscenter.isu.edu/research/Techpg/caprrc/index.htm) and web-based discussion forum (http://idahorrc.lefora.com/). Both have been very useful and effective.

To date, we have organized four focused RRC meetings that were attended by 48 key people located throughout the state (mean attendance = 21). In addition, RRC's were discussed in detail at the ISDI forum held in Pocatello on June 24th. At this state-wide meeting leveraging video conferencing technologies we initiated the development of a unified mission statement for RRC's, a discussion which was later facilitated by the web forum.

On August 5th, we received the first draft of the business plan which was followed by an RRC meeting on August 10th to discuss the draft and to begin making edits and changes as deemed

[1] TIM is the formalized name now associated with the Idaho Spatial Data Infrastructure (ISDI)

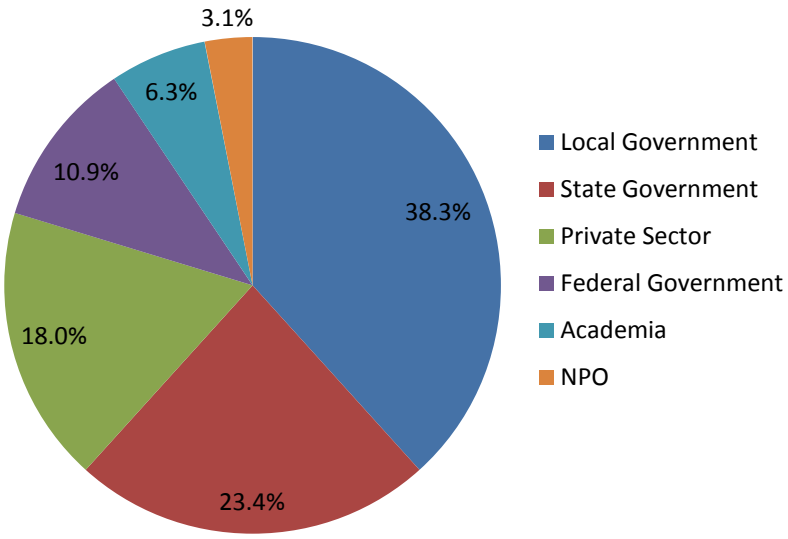
appropriate by the stakeholders. The comment period for the draft business plan is currently open and will end on September 1st. At this point, all submitted edits and suggestions will be incorporated into a second draft.

Key Accomplishments to Date

Three key accomplishments or successes are apparent at this point in the project; 1) the web-based forum has facilitated great discussions and is perceived as an easy and open venue to share ideas, 2) a survey was conducted seeking to identify the stakeholder community, and 3) the draft business plan was well received and represents a major milestone for the RRC's.

Inclusiveness of Efforts

Many efforts have been made to include representation from all stakeholders and stakeholder groups in Idaho. The majority of active participants represent local government GIS (cities and counties) with strong representation from state agencies and institutions as well. As a result of the efforts of Pete Croswell (Croswell-Schulte, the consulting firm selected for this project) the Idaho National Laboratory (INL) has become involved in this project and plans to continue their involvement in the development of RRC's.



In addition, to aid in communication and outreach to decision makers and the general public, we have developed a single-page flyer describing Idaho RRC's and this project (see attachments)

Evaluation of Practices

Open communication has proven critical for the development of RRC's and this project. To facilitate this, we have found the web-based forum to be indispensable and highly useful. Unlike e-mail and list-serves, which are also being used, the forum is simply very accessible to everyone

and is not perceived as being restricted only to the investigators and collaborators. Currently, there are 36 members actively using the forum.

Electronic communication technologies such as the forum, website, e-mails, and state-wide GIS list-serve are not, however, the only key to success and without the occasional in-person meetings this and other projects like it would surely fail. The meetings offer a chance to direct focus to the development of RRC's without interruption from other attentions.

Next Steps
The next step in this project is finalizing a second draft business plan. Croswell-Schulte delivered a draft on August 31st and the investigators have scheduled a thorough review/revision of this document prior to releasing it to the GIS community for comment later in September. Following this, the investigators and collaborators will work with Croswell-Schulte to develop EIRGIS- and SEIGUG-specific business plans. In addition, a guidelines page will be added to the website to assist others in the development of RRC's in their state/region.

At this point specific assistance is not necessary or required, however the investigators welcome any guidance or suggestions.

Timeline
The project is proceeding smoothly and on its original timeline. We do not foresee the need to request a no-cost extension.

Attachments
RRC Flyer
Draft business plan (versions 1 and 2)

EASTERN IDAHO REGIONAL RESOURCE CENTER

Eastern Idaho is a beautiful place with unique geography, friendly people, and an unlimited amount of recreational and commercial opportunities. To enhance our natural and cultural advantages and realize our full potential, we envision a place where resources and data are assembled and made available throughout our area. You are invited to join us in defining and planning a regional resource center for eastern Idaho.

A REGIONAL RESOURCE CENTER? WHAT'S IN IT FOR YOU?

Our statewide GIS plans envision four to six RRCs, defined and sustained by the people in each locale. With your input, Idaho's RRCs will plan to offer data and services commonly needed to fuel economic development, enhance public safety, and make wise resource decisions—to name just a few. Four areas have indicated their intention to form an RRC thus far: Eastern, Southeastern, Western and Northern Idaho. Since RRCs are largely self-defined, it's up to us to determine the service mix and other aspects of establishing and sustaining a regional organization in Idaho.

Enhancing GIS capabilities in Eastern Idaho ...

WHAT COULD THE EASTERN RRC OFFER?

These are a few of the proposed ideas:

- Digital mapping and integration for statewide and regional features
- Communications bridging between local and statewide efforts
- Resource pooling
- Grant writing & administration
- Training focused on operations and processes
- Software & hardware sharing
- Forum for identifying and capturing opportunities for partnerships
- Mentoring
- Technical Support

What would you like to see offered?

SHOULD I BE INVOLVED?

If you use maps or geospatial data, or make decisions involving the natural, cultural, political or other earth-bound landscapes, or if you just want to be better informed about location-related issues and capabilities in eastern Idaho, you should make your voice heard. To get involved, visit:
http://www.idahorrc.lefora.com

Be a part of this exciting opportunity to shape Idaho's future!

SPECIAL ACKNOWLEDGMENTS:

This outreach and planning effort is funded by a Federal Geographic Data Committee 50 States Initiative CAP Grant.

the idaho map

EASTERN IDAHO REGIONAL RESOURCE CENTER CONTACT INFORMATION

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DRAFT 1.0

BUSINESS PLAN FOR GIS REGIONAL RESOURCE CENTER DEVELOPMENT AND OPERATION

This is the first draft of the RRC business plan for review and comment by project participants. This draft includes sections and content that are common to RRC implementation in all regions with notes specific to individual regions. In the next phase of this project, individual plans will be prepared for the Eastern and Southeast RRCs.

NOTE: See the list of main topics for review and comment on the next page.

We request that comments be submitted **by August 23** to:

- Keith Weber, webekeit@isu.edu
- Eric Smith, ericsmithgis@gmail.com
- Peter Croswell, pcroswell@croswell-schulte.com
- Bill Masters, bill@gisquality.com

Review comments and suggested changes to the plan may be in the form of an email message and/or a mark-up of this Word document (using the Track Changes feature or some other method of highlighting comments and revisions).

Prepared by

Peter Croswell, Croswell-Schulte IT Consultants
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and

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August 5, 2010

Regional Resource Centers (RRCs) are organizational components of The Idaho Map (TIM), Idaho's statewide GIS program. RRCs have the primary mission of supporting and coordinating GIS activities and users in specific geographic regions of the state, in coordination with the Idaho Geospatial Council (IGC) and the Idaho Geospatial Office (IGO)

REVIEW TOPICS

Reviewers are encouraged to provide comments and suggestions for changes on any part of this draft plan. Specific topics for which your input is particularly important are listed below with hyperlinks to parts sections of this document.

- Finalizing RRC Mission Statement [Link]
- Comment and revise stated objectives [Link]
- Examine and add comments to description of potential services and priority [Link]
- Characterization of different types of RRC Participants and Users [Link]
- Get additional ideas and examples of benefits/business justification [Link]
- Resources and Host Organizations [Link] [Link]
- RRC Management and Staffing [Link]
- Organizational Type and Management Structure [Link] [Link] [Link]
- Relationships/dependencies between RRCs and other Organizations [Link]
- RRC Development and Implementation Phases [Link]
- Funding Sources [Link]

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1. BUSINESS PLAN BACKGROUND AND PURPOSE

1.1 RRC Background and Business Plan Purpose

GIS Regional Resource Centers (RRCs) are organizational components of The Idaho Map (TIM), Idaho's statewide GIS program. RRCs have the primary mission of supporting and coordinating GIS activities and users in specific geographic regions of the state, in coordination with the Idaho Geospatial Council (IGC) and the Idaho Geospatial Office (IGO). This business plan has been prepared through a project managed by the ISU GIS Training and Research Center (GIS TReC) and which is being funded by a Category 4 NSDI CAP Grant. With consulting assistance from Croswell-Schulte IT Consultants, business plan preparation was carried out with a project team that includes personnel from the ISU GIS TreC, Eastern Idaho Regional GIS (EIRGIS) and Southeast Idaho GIS Users' Group (SEIGUG). In addition to this core project team from the Eastern and Southeast Regions, this RRC business planning has included input from GIS stakeholders from the entire state (North and Southwest regions).

The planned purpose and roles for the RRCs were originally explained in the 2008 *Strategic Plan for Development and Deployment of Idaho's Spatial Data infrastructure* (p. 29):

> "…[RRCs] act as points of coalescence for GIS user organizations in different areas of the state and help to connect local activities with the statewide SDI program. They will be supported by existing institutions or groups (e.g., universities, existing regional GIS user groups) that have GIS resources sufficient to provide some support to users. They would provide a number of services and support functions, including: a) answering technical questions for users, b) providing some general "consulting" support and advisory services for organizations in the process of GIS development, c) training sessions, d) site for meetings and special SDI events, and e) aggregate and serve regional Framework data These centers can be established and put in operation over a period of time as they are needed and as resources permit. It is expected that these centers will include staff and technical system resources. It is also expected that they will provide "virtual services" through the Web (i.e., Web-based information, links, contacts, blogs, etc.) that address the needs of users in specific regions of the state. The coordination and support now provided by regional GIS user groups will be a foundation for Resource Center development."

This statement above defines a range of possible roles for the RRCs throughout the state. This business plan responds to the particular needs for the [*Eastern/Southeast*] RRC as originally defined in the RRC proposal (see http://gis.idaho.gov/portal/IGO/regions/regions.htm) and takes into account the following research, information gathering, and deliverable review activities conducted this planning project which was initiated in May, 2010:

- RRC business planning kick-off meeting on June 23 in Pocatello
- RRC discussion at the North Idaho GIS User Group meeting on June 28
- Comments posted to the "RRC Forum", a publicly accessible Blog (http://idahorrc.lefora.com/)
- Results of a Web-based survey deployed and managed by the RRC project team

- Preparation followed by a review and comment on a "Summary Notes and Observations" document prepared by the Croswell-Schulte Project team (see http://giscenter.isu.edu/research/Techpg/caprrc/)
- The August 10 RRC planning meeting in Idaho Falls
- Individual interviews and email exchanges with project participants

1.2 Mission and Objectives for RRCs

The [*Eastern/Southeast*] RRC shares the following mission common to all Idaho RRCs:

> Act as a vital component of The Idaho Map and enhance geospatial capabilities in the region.

There is a strong consensus that RRCs should play both a "bottom-up" and a "top down" role. This includes improvements in GIS operations and coordination among GIS user organizations in the region and conveying statewide standards, policies, and opportunities to RRC participants.

The specific objectives for the [*Eastern/Southeast*] RRC include: **We will need to tailor these objectives to each region

1. Coordination of TIM...framework datasets, implementation and understanding of standards.

2. Mentoring among GIS community

3. Establish a formal basis for participation in and conveying of regional interests to Idaho Geospatial Council (IGC) and Standing Committees and Working Groups formed by the IGC.

2. Provide an improved environment for communication, mutual support, and the sharing of GIS news, applications, and best practices for GIS development and operation

3. Support and help organize ongoing GIS education and training for GIS users in the region

4. In coordination with the IGC, IGO, and other RRCs, play an advocacy role to increase awareness and support for GIS by senior officials and decision makers

5. Work to expand the use of GIS technology, the quality of GIS data, and the effectiveness of GIS applications and management to deliver increased benefits to users in the region

6. Support the development and/or access to GIS technology for low population/low resourced local government jurisdictions, special service districts, (**and others??) in the region.

Comment [KTW1]: These are just my quick bullet ideas. I think they really need to be #1 and #2... but fleshed out and melded with other points below.

7. Create tools and a management environment that encourages and support joint GIS projects and partnerships, including multiple public, private, and non-profit organizations in the region and potentially outside the region (e.g., joint database development, GIS hosting services).

8. Establish a physical presence with necessary facilities (hardware, software, office space) to support RRC services (training, meetings, GIS services)

9. **other objectives??

1.3 Geographic Scope and RRC Status in the [*Eastern or Southeast*] Region

The [*Eastern/Southeast*] RRC includes the following counties also displayed in Figure 1:

List of Counties:

- Xxx
- Xxx
- Xxx
- Xxx
- Xxx
- Xxx
- xxx

Figure 1: Geographic Area of the [*Eastern or Southeast*] Region

**insert map highlighting counties covered by the region

The primary mission of the [*Eastern/Southeast*] RRC is to serve users in this defined region but these boundaries do not restrict RRC support for and coordination with GIS stakeholder organizations outside the region. There is a strong consensus that the different RRCs in the state should work closely together—on the development and provision of services and programs that they sponsor. Where appropriate RRC participants in one RRC region should be able to take part in programs (e.g., a training session) sponsored by another RRC. Effective use of resources and a response to the needs of GIS users will require collaboration in planning and service delivery among all RRCs and the IGO.

2. RRC SERVICES, USERS, AND BUSINESS JUSTIFICATION

2.1 RRC Services

This section describes a range of services that are planned for implementation by the [*Eastern/Southeast*] RRC. Table 2 identifies these services and presents the following information:

- Description of the service
- Priority: a reflection of the importance of the service for the [*Eastern/Southeast]* RRC
- Resource Requirements: general description of staff and other tangible resources required to establish and provide the service
- Draft Document Review Notes and Commentary: Comments that support review of this draft and ideas on need for this service by the *Eastern/Southeast* RRC

**Review comment: There were some comments on the "Summary Notes and Observations" document raising concern that many of the potential services below seem to "compete" with services now being provided by other organizations (state agencies, private sector companies, user groups, professional associations). We should have additional discussions to identify this potential "competition" or opportunities for collaboration—i.e. an RRC roles that could help facilitate and support services that are being provided by an existing organization (to enhance the delivery of these services).

Table 1: Potential RRC Services

Potential Role/Service	Description	Priority*	Resource Requirements	Draft Document Review Notes and Commentary **please review and comment on the issues and questions below
Directory of GIS Contacts and Professional Networking Support	Compilation and ongoing update to a Web-accessible directory of Idaho (and perhaps out-of-state) GIS professionals. These contacts will agree to have their contact and basic experience and skill sets posted and agree to be available to Idaho GIS users that need advice and basic assistance in GIS development and deployment.	5	Minimal time or system resources	*Very important for all RRCs. It is best to implement this on a statewide basis. RRCs are the main bodies that build and maintain the database. Are there any policies or privacy concerns about making contact information Web accessible?*
GIS Professional Labor Pool Management	This service takes the "GIS Contact Clearinghouse" a step further by organizing and managing a pool of GIS specialists, primarily among government agencies, who may be able to provide consulting or development services to other government organizations that lack the in-house staff. Services would involve more than simple advice or assistance provided at no cost. Organizations would offer their GIS staff, as availability permits, to provide support, at a standard fee, to other jurisdictions. The RRC would help coordinate requests for and assignment of services and would provide financial management services as needed to reimburse the organization providing the services. This could include an accounting mechanism under which GIS personnel for RRC participating organizations could provide services supported by the RRC and have their home organization (e.g., County government) reimbursed for their employee's time.	2	Depends on need and availability	*Potentially could create competitive issues with private sector consultants providing services. Also dependent on accounting mechanisms acceptable to government jurisdictions. Are there legal or administrative obstacles that could limit this RRC role?*
GIS Project/Best Practices Catalog*	Compilation and ongoing update to a Web-accessible "library" of successful GIS projects, and demonstrated "lessons learned", and best practices. This Web-based library would provide practical examples and project approaches GIS technical development and program management) that could be reviewed and used by other organizations. Supports the concept, "don't reinvent the wheel". This is a service that should be implemented at the state level (through the IGO) but RRCs should have an important role in providing information and updates.	5	Minimal time or system resources	*This could also be a clearinghouse for professional papers and publications of the participants that relate directly to their specific needs. Perhaps also a set of links to similar data on the web.*

Support Advocacy and Building Awareness of GIS Benefits	In coordination with the IGO and the IGC, RRCs will participate in activities to promote awareness of GIS with a focus on building support among senior officials and decision-makers. RRC participants will provide testimonials illustrating GIS benefits, participate in presentations at meetings, and provide support to the IGO and IGC in budget requests. RRCs will coordinate contact with senior management and elected officials in their region to garner support for GIS adoption and enhancement by RRC participating organizations	3-4	Moderate time requirements at selected times when advocacy is required	
Regional Framework Steward	A variety of coordination and support activities to support and facilitate Framework data stewardship—playing an intermediate role between Source Stewards (e.g., County and City GIS programs) and Framework Stewards assembling and updating statewide Framework data sets. This role does NOT imply primary data compilation and updating—it is a coordination and support role to assemble data from Source Stewards and submittal to state Framework Steward. The RRC would accept data from Source Stewards, perform QA, edgematching between jurisdictions, reformatting, packaging and submittal to the Framework Steward. An important role would be to support adoption and use of approved data standards by Source Stewards and assurance that submitted data complies with standards. This RRC function could provide economy of scale benefits by regional centralization of some data stewardship activities and would provide a simpler organizational structure for submittal of updated Framework data to the state level Framework Steward. Since Framework stewardship activities are specific to individual data themes or elements, it is possible that this Regional Steward role is put in place only for selected themes or elements.	4-5	Need dedicated staff with GIS data skills, computer hardware, and GIS software	*Interest in this activity varies a bit among different RRCs but there is a fairly strong consensus that this is an important role for RRCs*
GIS Data/Metadata Compilation and Update	Technical services involving the compilation of GIS data sets. This may involve field data collection, scanning/digitizing from hardcopy sources, integration/formatting of existing automated sources for the development and/or update of Framework or non-Framework GIS datasets. It is expected that a considerable amount of GIS data compilation will be carried out by organizations in the region (or through contractors that they hire) but there may be some opportunities to use RRC resources for certain GIS database development projects (possible in partnerships with private data conversion firms). It is expected that local government jurisdictions in the region with active GIS programs will compile and update Framework data and play a Source Steward role for maintenance of statewide Framework datasets (possibly with RRC coordination as a Regional Framework Source Steward). But lower resourced local governments or special service districts will require RRC support (perhaps with services provided by private contractors) to these lower population jurisdictions.	2	Need dedicated staff with GIS data skills, computer hardware, and GIS software	*Providing such services potentially could create competitive issues with private sector (at least for major GIS data compilation projects)*

Support/ Encourage Adoption of TIM Standards and Policies	Designated RRC representatives track and support the development and approval of GIS standards and policies (approval by IGC and ITRMC). Includes raising awareness and understanding of standards and policies among GIS users in the region and supporting their practical adoption and use. Requires participation in standards review and meetings. RRCs will play a role in identifying and enlisting participants (from the region) in standards and policy development activities and in presenting ideas for IGC consideration. Also, RRCs may evaluate, prepare, and adopt GIS data standards (non-Framework) or standard practices and policies that apply specifically to participants in an RRC region.	5	Moderate staffing requirements needed to participate in standards development and their adoption by RRC participating organizations	*What administrative mechanisms and controls need to put in place to formalize and support this function?*
Organize/Host GIS Meetings and Events	Support in planning and organizing GIS meetings and events directed mainly at people and organizations inside the RRC region. These may be project meetings, training sessions, workshops, etc. This includes scheduling, identifying and lining up facilities, promotion, registration services, establishing electronic access environment, etc.	4	Varies depending on the number of events	*May include events sponsored by the RRC or events sponsored by another organization (University group, vendor) for which the RRC provides support services. Discuss whether this role could result in conflicts with other organizations (User Groups, NR URISA Chapter, etc.) also providing these services*
Prepare Project Specifications and Support GIS Services Procurement	Work with regional partners (mainly local governments) to prepare technical specifications and procurement documents for GIS products and services from the private sector. Also support local governments in evaluation of proposals and selection of contractors and vendors. This may include procurement of GIS database services, software procurement, application development services, Web hosting services, etc.	3	Requires access to library of template specifications and RRC person in "consultant role"	*Could create competitive issues with private sector since GIS consultants also provide technical specification and procurement support services*
Joint Project Negotiation and Management Support	Provide facilitation for joint projects involving RRC participating organizations in the region. This may include support in negotiations with GIS service providers and contract preparation for GIS services (mainly database development) that involve multiple jurisdictions/organizations in the region. Follow this with project management support (contract management, review/approval of deliverables, status reporting, etc.) on behalf of the project participants.	3-4	Moderate—need RRC person with technical knowledge and project management skills	
Coordinate, Promote, and Provide GIS Training and Education	Involves assessment and monitoring of training and education needs by the GIS community inside the region and identification of training and education opportunities for which there might be interest (instructor led training sessions and workshops or Web-based training sources like the ESRI Virtual Campus). In addition, the RRC could plan, organize, and conduct training sessions.		Moderate-requires trainers, training materials and facilities for training sessions	*Might create overlap or coordination problem with training focus of the ISU GIS TreC or other organizations providing training. What is the most appropriate role for RRCs in each region?*
	-Support training provided by other organizations:	4		
	-RRC plans and provides training:	2		
Provide Regional Representation	Ensure that representatives from the region participate on the Idaho Geospatial Council (IGC), on the IGC Executive Committee as appropriate, and maintain regular	5	Moderate	*RRC representatives should attend IGC meetings and propose*

on IGC and Communication with IGO	communications with the IGO to keep abreast of developments impacting TIM, and play an advocacy role for TIM initiatives impacting the region. According to By-Laws IGC participation is open and Executive Committee members are elected. There are reserved Executive Committee seats for GIS TreC and the "geospatial Clearinghouse (INSIDE Idaho). The By-Laws call for remaining seats to be filled by designated stakeholder organization categories (state agencies, federal agencies, local government, tribal government, utility, private sector).			*candidates for Executive Committee seats.*
Grant Research Application Preparation, and Administration	Assign RRC personnel and assume ongoing role to identify potential grant opportunities and assess appropriateness of upcoming grants to support TIM and GIS programs in the regional (and for the state as a whole). Participate in the preparation of grant applications (with the IGO, government agencies, and other RRCs as appropriate) and play an oversight and grant administration function.	4	Requires dedicated staff resources for grant research and preparation	
Hosting GIS Data and Services**	Providing hosting services for organizations in the region—particularly small jurisdictions which are not maintaining GIS infrastructure or data. Hosting would include data (and perhaps data update services), required software, and applications for Web-based access to "subscribers" in the region. One option, in addition to the RRC providing hosted services is to act as a "broker" to help plan hosted services and engage private service providers to support user organizations in the region. Planning for hosted data or services should consider the possibility of using "cloud computing" which would use Web-based systems and software maintained by another organization (e.g., private company with data center and software services), thereby reducing or eliminating the need to maintain hardware and software.	3-4	RRC hosted data or services would require server, software, and high-speed network access and dedicated personnel for system, software, and database admin. Use of Cloud-based services reduces the need for in-house hardware and support but would require service fees.	*Hosted data and services are critical for small jurisdictions and organizations (low population/low resourced counties, cities, service districts, non-profit organizations). Potentially could create competitive issues with private sector companies that provide hosting services. Opportunity exists for RRC partnership with private sector. Also, could use "Cloud" based data and software services*
Designing/ Developing GIS Applications and Web Services and Facilitate Technology Transfer	Involves a service, similar to that of a private consultant to design and develop custom GIS applications and Web services for an organization in the region. This work may result in applications installed on the user's system or providing them in a hosted environment. RRC personnel may participate in application/Web service design with or without involvement of private firms. In addition, the RRC could provide a technology transfer function—providing information about successful application/web services already implemented by jurisdictions and support in use of these in other jurisdictions in the region.	3	Moderate. Requires personnel with GIS technical skills	*Potentially could create competitive issues with private sector companies that provide these GIS services*

*Subjective indication of importance and appropriateness for one or more RRCs. A score of "5" means very high importance and a score of "1" indicates low importance and that this service should not be strongly considered for initial RRC operations

**Hosting data or services could make use of computer hardware, software, and network infrastructure owned and maintained by the RRC or managed by a cooperating organization. There is also an opportunity to provide such services using hardware and software provided by separate data center (under a lease or subscription agreement) or user of emerging "cloud" services in which the RRC, for a fee, taps into server and software services by a cloud provider. Under these environments where the hardware and software is not directly managed by the RRC, the RRCs role would be one of management and oversight.

2.2 RRC Service Providers, Participants, and Users

**Reviewers: this is not fully worked out. Please provide your ideas on categorizing different types of RRC participants. We see a need to have a "registration" and member rolls--much like a professional organization or user group the registers individual or organizational members. In addition, we believe the "Associate" category could establish a formal basis for on-going partnerships.

Services provided by the RRC need to be defined in the context of people and organizations that are providing RRC services and those using those services. For the purposes of this business plan the following terms are defined:

RRC Service Providers: This includes people and organizations which provide RRC services. This covers RRC administrative support functions, RRC management, and all technical and operational work associated with the RRC services. Included in this group are staff people assigned RRC roles (full or part-time) and people or organizations in or outside the RRC region that provide time and resources for accomplishing RRC services.

RRC Members: It will be useful to formally identify organizations and individuals which choose to be identified as RRC participants. This primarily includes people and organizations inside the RRC region and encompasses, potentially, all GIS stakeholders: local government jurisdictions, tribal governments, state and federal agencies with a presence in the region, utility organizations, regional agencies and special service districts, private companies, universities, and the general public. These "participants" at a minimum, would be identified on a contact list maintained by the RRC, would receive basic services (e.g., access to Web-based services like a contact directory, GIS news), and which may chose to use other RRC services.

RRC Associate Organizations: This is a special category for organizations with which there is a formal agreement (memorandum of agreement, contract) for mutual support. This would typically include other public or non-profit regional agencies, organizations, or professional associations with interests in the region with missions that are compatible and/or complementary to the RRC. Agreements would define sharing of resources and potential funding provided to the RRC in exchange for GIS services. **some examples of regional agencies that might be associate organizations in one or more regions include: Economic Development Association (regional offices), COGs, UofI Extension Program (regional centers), Highway Districts, INL, etc. In addition, Associates may include private companies that offer GIS and related services to organizations in the region and support (monetary or in-kind) to the RRC.

RRC Users: Users (also referred to as "customers), include any organizations or individuals inside or outside the RRC region that use any of the RRC services. All "RRC Participants" may be considered "RRC Users" but RRC Users or Customers may not be "RRC Participants". For a private contractor from outside the region or the state may request services from the RRC.

2.3 RRC Benefits and Business Justification

**We need to do additional investigation and brainstorming on benefits. This should include tangible and intangible benefits. Tangible benefits are those, which can be measured in monetary terms (e.g., dollars saved, generated, or avoided costs) or staff time (e.g., efficiency gains or avoided staff increases). Intangible benefits are those which cannot be easily quantified (improved decision making or responsiveness) or which have a potential quantifiable value but cannot be easily measured or predicted. We should get some discussion on the following potential benefits—it will be helpful to cite specific benefits or examples:

Tangible Benefits

- Reduction in staff time for processing data updates for Framework Stewardship
- Reduction in cost and staff time in developing/deploying GIS applications (through sharing or apps and expertise)
- Cost savings through economy of scale in joint GIS database or application development projects
- Improved position for submitting and getting grant awards for activities of interest to RRC participants
- Xxx
- Xxx
- xxx

Intangible

- More direct access to senior officials in the region—increasing awareness and support for GIS
- Effective way for regional participants to voice their needs and participate in IGO and IGC programs—better assurance that regional needs will be taken into account
- RRC role in GIS data and service hosting promises to increase access to GIS technology by small jurisdictions (low population counties and cities)
- Quicker GIS program development and deployment through access to best practices and professional networking enabled by the RRC
- Support and oversight on geographic data standards improves opportunities for data sharing and database integration
- xxxx

3. RESOURCE AND OPERATIONAL NEEDS FOR RRC OPERATION

3.1 Overview of Resources

Resources for RRC operation include all tangible commodities necessary for RRC operation:

a) Office location and space: including furniture, office supplies, and other amenities),

b) Computer systems and equipment: Servers, desktop or laptop computers, peripheral devices, networks, software, copy machine, projection units, etc. This category also includes hardware and software maintenance and support service contracts.

c) Personnel: Management and administrative support personnel and technical/professional staff.

d) Funding: Monetary contributions and support for RRC development and operation

Information gathering conducted for this business plan preparation indicates that there is a general consensus that each RRC needs a physical location and facilities from which RRC operations are managed and services are provided. However, there is an acknowledgement that limitations on funding, at least initially, will limit the scope of RRC operations and the facilities and staff that can be supported. For this reason three key principles will guide the establishment of RRCs and offering of services:

- RRC development should take a "go-slow", incremental approach. Put in place high-priority and lower cost services first and gradually add additional resources and services. A general phasing for *Eastern/Southeast* RRC development is explained in Section 5.

- Establish the RRC as a program managed by an existing organization rather than creating a new organization. Section 4 explains organizational options and the recommended approach for the *Eastern/Southeast* RRC **for the Southeast RRC, the logical approach is to incorporate RRC functions as part of the ISU GIS Center in Pocatello. For the Eastern Region, the RRC could use University Place as an organizational home with involvement of ISU-Idaho Falls and perhaps support from INL. **The consultant team has conducted initial investigations about these options and discussions have been positive. For the Northern Region (5 most northerly counties), a proposal has been prepared for RRC creation and sponsorship by the Panhandle Area Council. For the North Central RRC, potential organizational homes are UofI-Moscow or the UofI Extension Programs in Coeur D'Alene. For the Southwest Region, there does not appear to be clear ideas about a host organization or physical location

- Avoid an over-reliance on permanent, salaried RRC management or technical but use available services provided by a "host organization" of the RRC, volunteer time, and non-traditional staffing options. Section 3.3 explains some recommended options.

3.2 Office Space, Computer Devices, and Office Equipment Requirements

Space and facility requirements will change over time as RRCs evolve and expand their service provision. It is assumed that RRCs will use facilities of a host organization—with necessary arrangements for cost reimbursement consistent with the policies of the home

organization and terms established for RRC hosting. At a minimum, each RRC will require the following:

Server(s): Access to a Web Server (mid-range Windows-based server) and, ideally an application and/or database server (behind a firewall) with sufficient database storage space for GIS data, orthoimagery, and database requirements

Network Access: High Speed network link for external Web-based transactions and local area network access (wired or WiFi) at the RRC site

Server Software: Server software license requirements, in addition to operating system, network management, and Web Server software include: a) full Microsoft Office Suite and other document-based software (e.g., Acrobat), b) Web site design and management software c) database Management software (SQL Server), d) ESRI ArcGIS Server, e) Additional server-based GIS or image processing software as needed for project work, f) additional non-GIS server-based analysis, modeling, visualization, or other application software needed to support RRC projects.

Desktop Computers: A limited number of high-end desktop computers with sufficient processing speed, memory, graphics processing, and large display screen to handle compute intensive GIS, image processing, and modeling tasks. The Desktop computers should be loaded with the full ArcGIS desktop suite (at least version 9.3 but preferably version 10), selected ArcGIS extension packages, and other desktop GIS, image processing, or modeling software.

Peripheral Computer Devices: At a minimum, a page size (letter, legal size) monochrome laser printer or multi-function device (print, scan, fax, copy) and a C-size color ink-jet printer should be available. Specific RRC services will benefit from access to a large format (E-size) color ink jet plotter and large format scanner.

Meeting Room facilities: A meeting room with table, chairs, whiteboard and ideally equipped with desktop computer, projection device, network links for use in group meetings and training session. Availability of desktop computers for training would be beneficial.

Office Space: Limited space (cubicles or enclosed offices with desks of table) for RRC employees or temporary project workers.

Office Equipment and Supplies: At a minimum, a copy machine (preferably a digital networked copy/printing device) should be available and there should be a source of basic office supplies.

GIS Library: Each RRC should have access to a library of references that support GIS management and operations. The ideal library would combine hardcopy materials (e.g., books, copies of appropriate trade journals, white papers) with resources in digital form (electronic publications, computer-based GIS training tools), and a computer for searching available resources and for accessing Web-based sources.

As already mentioned, the degree to which the RRC can make use of facility, computer, and equipment resources of an existing organization, the more efficient it will be. It is expected that, as services expand with a growing demand, increased funding will be available for expansion of physical resources.

It should also be noted that the computer hardware and software resources explained above would not necessarily need to be locally available to each RRC. High-speed Web access would allow multiple RRCs to share resources (server hardware and software) maintained at a remote site in the state (e.g., an RRC initially uses server resources put in place at another RRC). This server sharing would also support the coordinated development and support for basic RRC services (RRC Home Page, contact directories, project catalog, etc.). The concept of remote server access brings up the concept of Cloud-based services—a server or multiple servers managed by a cloud-based service provider which, for a fee, provides compute, storage, and software services via the Web. In this environment, users are fully separated from server and software administration tasks which the provider handles.

3.3 Management and Staffing Requirements

**does this breakdown seem reasonable?

3.3.1 RRC Management

Each RRC should have a manager whose responsibility it is to oversight RRC set-up and development, staff recruitment, work delegation and monitoring, handling of legal and financial matters, exploring and initiating new projects, and preparation of status reports. This manager is also the main interface with the IGO and IGC. In addition, this person or another management level person needs to play a role in RRC marketing and promotion—to raise awareness about the RRC, sign-up additional participants and associates, investigate and help secure new funding sources. Initially, it is expected that this management role will require at least .25 full time equivalent (FTE) but is expected to grow over time—perhaps to the point where a full-time manager is required.

3.3.2 Administrative Support

This function includes standard office administrative work including receptionist duties handling and routing communications, setting up logistics and facilities for meetings, training sessions and other events, clerical tasks, inventorying and ordering supplies, and providing other support to management personnel and staff.

3.3.3 Technical Personnel

This staffing category includes any personnel who provide technical or operational support for RRC activities and projects. The main required skills include: a) Server/network administration and monitoring, b) Web site design and maintenance, c) GIS database design and development, d) GIS software and application development and use, e) technical training and communications, f) technical project management. The specific levels of staffing to fulfill these roles will begin modestly but grow overtime.

3.3.4 Options for RRC Management and Staff

With the expectation that initial and possibly ongoing funding for RRC operations will be limited, filling RRC staff roles should not rely on full-time dedicated positions. Operational and cost efficiency calls for maximum use of the following staffing approaches:

- Use of resources from the "home organization": To the extent possible, existing personnel of home organization (specify for *Eastern/Southeast* region) should fill RRC management, administrative support, and technical staff—addressing requirements for additional funding to cover RRC activities using available sources

- Volunteer time: RRC operations, as part of The Idaho Map (TIM) program will always need and benefit from donation of time from GIS professionals in user organizations (any government, private, or non-profit organization). This is occurring now through the regional user group and participation of GIS professionals on TIM Committees and Working Groups. There is a possibility also of creation of an inter-governmental reimbursement mechanism in which one RRC Participant uses, on a short-term basis, hours from a GIS professional in another Participant organization.

- Student Interns: Employment of qualified undergraduate or graduate college students on a short-term basis (for a brief project) or in a longer-term co-op or internship program. Costs for student labor could range from no-cost to modest hourly fees.

- Donated Services from the Private Sector: In some cases, GIS and IT service vendors and consultants may be interested in providing donated services or support for an RRC project.

- Paid Contract/Project-based Personnel: When an RRC sponsored or managed project is supported with appropriate funding (e.g., grant award), it is efficient to use some paid services from a private contractor (e.g., GIS consultant).

4. RECOMMENDED ORGANIZATIONAL/OPERATIONAL MODEL AND IMPLEMENTATION PHASES

4.1 Organization Type

During the information gathering process which this business plan is based, a number of organizational types were proposed and reviewers provided comments on their preferences. A general consensus on the following key organizational requirements was established:

- Establishment of the RRC organization should be as administrative and legally streamlined as possible

- The RRC organization should have a legal status with the ability to handle monetary transactions and to enter into formal contracts and agreements

- The RRC organization should always maintain its identity as part of The Idaho Map program and its operational connection with the IGO and IGC.

- The RRC organization should be positioned in a way that supports collaboration with existing organizations and programs impacting GIS stakeholders in the region

Of the six organizational types presented for review and comment, three were identified as the most appropriate for one or more of the RRCs:

- B. Existing University-based program
- D. Existing Regional Organization
- E. Multi-organizational Consortia

**We need to customize text for the Eastern/Southeastern RRC. Potential host organizations for organization types B and D have been identified for one or more regions: ISU GIS Center for Southeast RRC, University Place for Eastern RRC, Panhandle Area Council for Northern RRC, UofI-Moscow for North Central, and UofI Extension Program for support to one or more RRCs. RRC activities and services would share facilities, computer system, and staff resources with the existing program. The existing programs (Option B and D). Option E is a possibility but a definite third choice. It would mirror multi-organization GIS consortia some of which exist in Idaho (e.g., the Kootenai County Consortia) and other states involving an agreement between partners. In this case one of the partner organizations needs to have management leadership and provide administrative and legal structure for consortia operations.

Table 2 presents all 6 types with the shaded boxes indicating the three most feasible options.

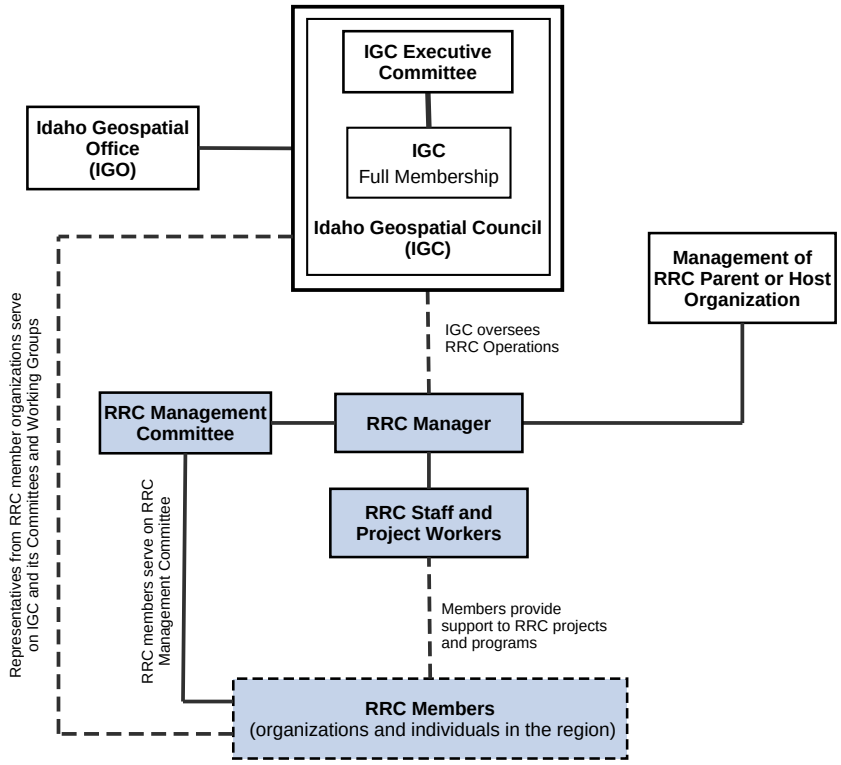
Table 2: Possible RRC Organization Types

Organization Type	Description	Suitability
A. Informal, "Virtual" Organization	RRC does not have a fixed location or a highly formal administrative structure. RRC work and activities uses volunteer contributions of time and resources. This is similar to the way in which existing regional GIS User Groups are organized. If this option was chosen, the logical approach would be to re-define the mission and operations of these Regional GIS User Groups to take on high-priority RRC services.	In the short-term, this option may be feasible for some or all regions since it implies minor adjustments to current GIS User Groups. This is not an acceptable long-term option since resources would be limited and lack of a formal organizational structure would restrict RRC activities requiring legal and financial management.
B. Existing University-based program	RRC roles and activities would be assumed by an existing University-based program. The stated missions of existing programs would be modified to reflect RRC responsibilities, additional resources (as available) would be applied, and RRC administration would be assumed by the existing University program. Potential candidates include: a) the ISU GIS Training and Research Center (TreC), b) the UofI Library (INSIDE Idaho), c) UofI Extension System.	This is a viable option for initial and long-term RRC development and operations—at least for certain RRCs. It is attractive since it does not require the creation of a new organization and the compatibility of the existing programs with the RRC mission. In addition, this option may provide the most efficient resourcing approach by use of existing facilities and a University-based labor pool.
C. New University Program	This option is similar to Option B but requires the establishment of a new program (either tied to an academic department or a non-academic office at a designated University. It would require creation of a separate management and administrative structure and assignment of personnel.	This is a viable option and has the advantage of focusing the RRC mission through a new program. It has the disadvantage of requiring more time and complexity in creation, the need to assign dedicated resources, and potential barriers in sharing resources with existing GIS-related programs.
D. Existing Regional Organization	This option would place the governance and operational management of an RRC in an existing regional agency that serves a quasi-governmental role that is compatible with the RRC mission and which has responsibility over an area that generally corresponds to the RRC area.	This is a possibility for some RRCs. In fact, some of the RRC proposals have cited the geographic areas of regional agencies (Idaho Economic Development Association regions) as a basis for RRC territories.
E. Multi-organizational Consortia	This organization type is established and defined through a multi-party agreement, signed by organizations in the region that pledge commitment to the agreements terms. These terms would address participation in RRC activities, contributions of resources (money, staff, facilities), approaches for joint project work, and other provisions. This option would require a management and administration function which could be formally assigned to one or more of the parties of the agreement or the establishment of a non-profit organization (see Option F).	This is a viable option for RRC establishment and has the advantage of clearly defining participation and commitments by organizations in the regions. It has the disadvantage that it does not necessarily define an administrative and legal authority—one party would need to take this role or a new organization would need to be created. This option could be used with any of the other RRC options, to define roles and relationships among participating jurisdictions in the region
F. New Non-Profit Organizations	The RRC would be established as a formal, Non-Profit Organization under Section 501 of the IRS Tax Code* (Note: there are a range of Non-Profit categories under Section 501). The 501 provisions establish the organization as Tax Exempt and allow it to assume legal and financial management responsibilities.	This is a viable option since it provides a suitable foundation (with necessary management, legal, and financial provisions) for all potential RRC operations and services while preserving a tax exempt status. The main disadvantage is complexity of creation of a new organization and the need for assignment of resources (as opposed to having access to resources of an existing organization).

4.2 RRC Organizational Structure

With the organizational type and organizational home established, it is necessary to put in place a management structure for each RRC. The Figure below depicts the recommended management structure. This figure shows oversight role played by the IGC and its Executive Committee and the relationship with a parent or host organization for the RRC. This organizational structure includes an "RRC Management Committee" made up of a fixed number of people (3 to 9 recommended) from RRC member organizations. This group represents the RRC membership and broader community of users and works with the Manager to support planning for and provision of services. This group also helps ensure participation in IGC initiatives from member organizations in the region, and it helps recruit volunteers for RRC projects. **consider this management committee to be somewhat like a board for a professional association or user group—not a governing board but one that supports the RRC manager and helps represent RRC members.

Figure 1: Management and Oversight Environment



4.3 Relationships and Coordination with Other Organizations and Agencies

**some reviewers of the distributed "RRC Meeting and Survey Notes" were a little confused by Table 3—which attempted to describe the types of relationships that need to be put in place between RRCs and outside organizations. We will simplify that here and would like to get any ideas, concerns, requirements of the necessary relationships between the RRCs and those organizations:

- The IGO
- Idaho Geospatial Council
- Federal Government
- State government
- Local government
- Regional Agencies/Special Districts
- Tribal Government
- Universities (including all academic and non-academic programs)
- Private Sector Users of GIS
- Public and Private Utility Companies
- Vendors/ Consultants-GIS Products/Services
- Non-Profit Organizations
- Other RRCs
- User Groups
- Professional Societies

**One important decision that needs to be made, as RRCs are formed is whether to continue regional GIS User Groups that currently exist in each of the regions for which an RRC is proposed. Comments on this issue were mixed but leaned somewhat toward dissolution of the Regional GIS User Groups. It is recognized that some of the potential RRC services are now being provided by the user groups. The opinion of the consultants is that the Regional User Groups should be formally disbanded at a point at which the RRC can be set-up to assume needed functions. To keep two similar and potentially overlapping groups can result in confusion, duplication of effort, etc.

4.5 Operational Practices and Service Delivery

**text will be included in the next draft

4.6 Operational Monitoring, Reporting, and Measurement of Service Delivery

**text will be included in the next draft

5. IMPLEMENTATION STEPS, TIMING, AND COST PROJECTIONS

**Business Plans for the Eastern and Southeast RRC will vary somewhat on implementation timing. For all RRCs we propose the following phases identified below. With the idea that all RRCs will ramp-up slowly so that services are matched well with need and demand as well as available resources. We can use comments about the general phases below:

Phase 1: RRC Preparation/Organization (6 months)

Includes identifying and establishing the organizational and physical home for RRC operations and associated agreements, appointment of the "oversight board", designation of initial management and staff, investigating and securing initial funding. Promotion and news about the RRC is distributed to potential participants in the region and work begins to "register" regional members. **RRC creation should be accompanied by some formal instrument (resolution by IGC?) and a policy/by-law document—common to all RRCs. Any ideas?

Phase 2: RRC Start-up and Initial Operations (12 months)

Initial facilities are set-up and work proceeds to develop and deploy initial high-priority services. Promotion work and "registering" regional members continues. Identifying and enlisting associates is carried out. Additional funding sources and project opportunities are explored and secured. The RRC plays an active role in TIM initiatives.

Phase 3: RRC Enhanced Service Deployment (12 months)

Additional services and programs are developed and deployed. Work continues on recruiting additional members and associates and in exploring additional funding sources and project opportunities. Staff and facilities devoted to the RRC are expanded as funding allows.

Phase 4: Mature RRC Operations (Future after Phase 3)

**For individual RRCs, we need to discuss what is considered a "mature operation"

5.1 Implementation Steps and Timing

5.2 Implementation Responsibilities

5.3 Cost Projections for Development and Operational Budget

6. FINANCING STRATEGIES AND RRC PROMOTION

6.1 Summary of Funding Needs by Phase

6.2 Potential Funding Sources and In-kind Contributions

Requirements for funding or non-monetary in-kind contributions (staff time, special services, equipment, software)

**We need to get ideas and additional suggestions for funding sources

Table 3: Possible Sources for Funding and In-Kind Contributions

Funding/Contribution Source	Description
Standard Fees from RRC members	Standard membership fee from RRC member individuals and organizations. This would be an annual fee would be required for membership (and therefore for receiving basic RRC services) **Standard fees must be low enough that members will be able to justify this monetary contribution. There must be a perception that a benefit is derived from RRC membership and participation. There is a possibility of adjusting the level of fees by jurisdiction or organization size.
In-kind support from parent/host organization	Includes donated staff time, office space, facilities, computer systems, equipment, etc. already in place by the organization hosting the RRC. **It is recognized that parent or host organizations will have limitations on the level of in-kind contributions that can be provided and that the capacity to provide in-kind support will vary among the different regions and host organizations. It is expected that such in-kind contributions will be more important in early RRC phases and there is a goal to find revenue to reimburse host organizations for facilities
Existing student intern and co-op programs (with existing funds)	Use capacity (student labor) that may be available from existing, funded, College/University student co-op and intern programs. The RRC can offer a valuable environment and experience for students with necessary skills that labor on a part-time or full-time basis for an internship period. **This source is dependent on finding unused funds, allocated for student interns that could be used by an RRC at no or low cost. Is this enough of a possibility to pursue?
Volunteer time from participating organizations	It is expected that RRC member and associate organizations will be able to justify allocation of time from their staffs to contribute time and expertise on RRC programs and projects that have a benefit for all member organizations. To fully leverage this in-kind source, the RRC must sustain and active recruitment process and provide information on projects and tasks which need support. Volunteer recruitment for RRC projects must be coordinated with participation in committees and working groups formed by the Idaho Geospatial Council. Contributions of time will always be on a volunteer basis.
State TIM program appropriation from state for FY 2012	The IGO plans to submit an executive budget request for TIM program activities which includes and allocation of funding for RRCs (for Fiscal Year 2012). **This is considered to important source of funding but at this point, there is no certainty that funding will be approved (for FY 2012 or later years).
Grants	Grant funding covers a full range of funding available through grant programs sponsored by state and federal agencies, non-profit/non-governmental organizations or foundation, and private sources. The Idaho GIS community has been successful in receiving and making effective use of federal funding (specifically the FGDC Cap grant program) for GIS related work. There will be continued grant funding opportunities in 2011 from the CAP program and other sources (DHS, IECC) that specifically target GIS development. But there are a large range of other grant programs, which may not specifically cite GIS but which have a major geographic component, and which, potentially, could support RRC projects and services. RRCs could play a role in grant application and administration or the RRC could be a partner in a grant application project with another lead organization (RRC member organization). **Project consultants are investigating potential grant sources. Do you have ideas on grant programs that should be explored?

Sponsorship fee or in-kind contributions from private companies	Private companies, with a business interest in the Idaho GIS community, may be interested in paying sponsorship fees or providing in-kind donations (services, computer hardware, software, training, etc.). To leverage this potential source, the RRC would need to establish a formal sponsorship program and solicit contributions. **is this something that should be pursued? Are there any potential "conflict of interest" concerns? What companies should be identified as possible contributors?
Special fees for enhanced web GIS hosting and services	The RRC may provide enhanced services (more than basic RC services) for a fee by those member organizations or users that choose to use such services. **There is no strict definition of "enhanced services" but it implies things like data or Web services hosting. This may be most attractive to smaller local government jurisdictions that do not have active GIS programs
Management fee for joint project management	One of the potential RRC services is support in organizing and managing joint projects (e.g., GIS database development project for multiple cities, counties, utility companies, etc.). In this case, project partners would be funding the effort (likely carried out by a private company). A fee, allocated from the project budget, would be allocated to the RRC for its role in any of the following: a) preparation of specifications and RFP, b) managing selection/procurement of services, c) contract negotiation, d) project monitoring and contract management, e) financial management, f) quality assurance. The justification is that economy of scale cost savings for joint projects would be delivered with sound project planning and management
Revenue from Special Projects	This includes any revenue generated from special GIS projects carried out by the RRC. Funding would be provided by any public or private sector organization (in-state or out-of-state). This may be a case in which the RRC leads and carries out the project or just contributes labor, data, or other support to a project managed by another organization **To establish a basis for this revenue source, it would be best to establish a fee schedule, basic terms for providing services, and do promotion to investigate opportunities. Are there any legal or policy concerns?
Fees for data compilation and/or regional Framework stewardship support	Fees would apply for GIS data related work provided by the RRC. This could include data collection or compilation for member organizations (mainly low population local government jurisdictions). In addition, fees from Source Stewards could apply for work carried out by the RRC for assembling, formatting, and submittal of Source Steward Framework data updates—reducing labor required by the original Source Steward. **A potential RRC role as a "Regional Steward" has been noted as a high priority by project participants. Is it reasonable for the RRC to charge fees for this work or is it considered a "basic service" which the RRC should support through other funding sources.
Sale of special GIS products	There is an opportunity for an RRC, or one of its members, to design and create custom products for sale. A "custom product" is considered to be any digital or hardcopy product generated in a "value-added" activity using GIS data and software. This may include custom maps, geographic data extracted and delivered in a non-standard format, etc. **Is this realistic enough to be an opportunity which should be explored in more detail? It would need to be done in a way that does not present unfair competition with the private sector.
Agreement with commercial Web-based geospatial services	The potential exists, in the future if not at the present time, to negotiate agreements with companies providing Web-based spatial data and services (Microsoft Bing Maps, Google Earth, and potentially many more that operate on a national or regional basis). There are not currently many precedents for this type of arrangement but as these commercial firms enhance the scope, resolution, and timeliness of data they provide, opportunities may increase. An agreement with commercial service providers would best be organized at the state level (IGO and IGC) but RRCs could participate in providing data and sharing in revenue received.
Recorder fees for special GIS fund	The Idaho SDI Business Plan (2009) identified an action to explore the possibility of establishing a new fee for document recordation (County Recorder) and a special fund

	from these fees to support GIS development. Several other states have put this type of funding mechanism in place. If this financing strategy was pursued and approved by the State legislature, the IGC and IGO would have a major role in defining terms for use of the funds but it would be acknowledged that are a large portion of the funds would be allocated back to local governments for GIS development and operations. RRCs could play a role in ensuring appropriate disbursement of the funds and supporting local jurisdictions in effective use of the funds.

6.3 Recommended Funding and Financing Strategy

**this will be completed in the next draft

6.4 RRC Promotion and Marketing

**this will be completed in the next draft

DRAFT 3

BUSINESS PLAN FOR GIS REGIONAL RESOURCE CENTER DEVELOPMENT AND OPERATION

This draft is for review and comment by Project Managers Weber and Smith. Additional changes will be made based on their comments and a revised draft will be prepared prior to general distribution to project participants.

In this draft, the following highlighting and comment conventions are used:

Yellow highlighting: internal notes identifying places where specific content needs to be revised or prepared for the individual Eastern and Southeast Business Plans

Embedded Comments or blue highlighting: Comments for reviewers to guide their review and solicit information on this draft

Comment [plc1]: Example of embedded note

This draft has not been fully proofed or formatted so no need to concentrate on this. Focus attention on general organization and content.

NOTE: Please make comments in any part of this plan citing wording and content that is specific to the Eastern RRC or Southeast RRC

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Regional Resource Centers (RRCs) are organizational components of The Idaho Map (TIM), Idaho's statewide GIS program. RRCs have the primary mission of supporting and coordinating GIS activities and users in specific geographic regions of the state, in coordination with the Idaho Geospatial Council (IGC) and the Idaho Geospatial Office (IGO)

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1. BUSINESS PLAN BACKGROUND AND PURPOSE

1.1 RRC Background and Business Plan Purpose

GIS Regional Resource Centers (RRCs) are organizational components of The Idaho Map (TIM), Idaho's statewide GIS program. RRCs have the primary mission of supporting and coordinating GIS activities and users in specific geographic regions of the state, in coordination with the Idaho Geospatial Council (IGC) and the Idaho Geospatial Office (IGO). This business plan has been prepared through a project managed by the ISU GIS Training and Research Center (GIS TReC) and which is being funded by a Category 4 NSDI CAP Grant. With consulting assistance from Croswell-Schulte IT Consultants, business plan preparation was carried out with a project team that includes personnel from the ISU GIS TreC, Eastern Idaho Regional GIS (EIRGIS) and Southeast Idaho GIS Users' Group (SEIGUG). In addition to this core project team from the Eastern and Southeast Regions, this RRC business planning has included input from GIS stakeholders from the entire state (North and Southwest regions).

The planned purpose and roles for the RRCs were originally explained in the 2008 *Strategic Plan for Development and Deployment of Idaho's Spatial Data infrastructure* (p. 29):

> "…[RRCs] act as points of coalescence for GIS user organizations in different areas of the state and help to connect local activities with the statewide SDI program. They will be supported by existing institutions or groups (e.g., universities, existing regional GIS user groups) that have GIS resources sufficient to provide some support to users. They would provide a number of services and support functions, including: a) answering technical questions for users, b) providing some general "consulting" support and advisory services for organizations in the process of GIS development, c) training sessions, d) site for meetings and special SDI events, and e) aggregate and serve regional Framework data These centers can be established and put in operation over a period of time as they are needed and as resources permit. It is expected that these centers will include staff and technical system resources. It is also expected that they will provide "virtual services" through the Web (i.e., Web-based information, links, contacts, blogs, etc.) that address the needs of users in specific regions of the state. The coordination and support now provided by regional GIS user groups will be a foundation for Resource Center development."

This statement above defines a range of possible roles for the RRCs throughout the state. This business plan responds to the particular needs for the [*Eastern/Southeast*] RRC as originally defined in the RRC proposal (see http://gis.idaho.gov/portal/IGO/regions/regions.htm) and takes into account the following research, information gathering, and deliverable review activities conducted this planning project which was initiated in May, 2010:

- RRC business planning kick-off meeting on June 23 in Pocatello
- RRC discussion at the North Idaho GIS User Group meeting on June 28
- Comments posted to the "RRC Forum", a publicly accessible Blog (http://idahorrc.lefora.com/)
- Results of a Web-based survey deployed and managed by the RRC project team

- Preparation followed by a review and comment on a "Summary Notes and Observations" document prepared by the Croswell-Schulte Project team (see http://giscenter.isu.edu/research/Techpg/caprrc/)
- The August 10 RRC planning meeting in Idaho Falls
- RRC discussion at August 11 EIRGIS meeting
- Individual interviews and email exchanges with project participants

1.2 Mission and Objectives for RRCs

The [*Eastern/Southeast*] RRC shares the following mission common to all Idaho RRCs:

> Act as a vital component of The Idaho Map and enhance geospatial capabilities in the region.

There is a strong consensus that RRCs should play both a "bottom-up" and a "top down" role. This includes improvements in GIS operations and coordination among GIS user organizations in the region and conveying statewide standards, policies, and opportunities to RRC participants.

The specific objectives for the [*Eastern/Southeast*] RRC include:

Comment [plc2]: I revised and added to these objectives based on comments from the last draft. Take a look and giove me comments for additional changes. I think these objectives should be common for both the Southeast and Eastern regions but let me know if there are differences.

1. Promote and enable communication, mentoring, and collaboration among organizations and individuals in the region.

2. Encourage participation in and conveying of regional interests to the Idaho Geospatial Council (IGC-EC) and Standing Committees and Working Groups formed by the IGC Executive Committee (IGC-EC).

3. Provide an improved environment for communication, mutual support, and the sharing of GIS news, applications, and best practices for GIS development and operation.

4. Support and help organize ongoing GIS education and training for GIS users in the region.

5. In coordination with the IGC, IGO, and other RRCs, play an advocacy role to increase awareness and support for GIS by senior officials and decision makers.

6. Work to expand the use of GIS technology, the quality of GIS data, and the effectiveness of GIS applications and management to deliver increased benefits to users in the region.

7. Support the development of and/or access to GIS technology for low population/low resourced local government jurisdictions, special service districts, and other organizations in the region.

8. Encourage and support the understanding of TIM Framework datasets and the adoption of associated standards and procedures for Framework stewardship.

9. Create tools and a management environment that encourage and support joint GIS projects and partnerships, including multiple public, private, and non-profit

organizations in the region and potentially outside the region (e.g., joint database development, GIS hosting services).

10. Establish a physical presence with necessary facilities (hardware, software, office space) to support RRC services (training, meetings, GIS services).

11. Support efficient government-private partnerships and regional economic development initiatives.

Comment [plc3]: I added this one to convey two themes: a) involvement and collaboration with the private sector (firms providing GIS services) and b) general support for regional economic development. Should we keep this objective, or change the wording?

1.3 Geographic Scope and RRC Status in the [*Eastern or Southeast*] Region

The [*Eastern/Southeast*] RRC includes the following counties also displayed in Figure 1:

List of Counties:

- Xxx
- Xxx
- Xxx
- Xxx
- Xxx
- Xxx
- xxx

Figure 1: Geographic Area of the [*Eastern or Southeast*] Region

**insert map highlighting counties covered by the region

The primary mission of the [*Eastern/Southeast*] RRC is to serve users in this defined region but these boundaries do not restrict RRC support for and coordination with GIS stakeholder organizations outside the region. There is a strong consensus that the different RRCs in the state should work closely together—on the development and provision of services and programs that they sponsor. Where appropriate RRC participants in one RRC region should be able to take part in programs (e.g., a training session) sponsored by another RRC. Effective use of resources and a response to the needs of GIS users will require collaboration in planning and service delivery among all RRCs and the IGO.

2. RRC SERVICES, USERS, AND BUSINESS JUSTIFICATION

2.1 RRC Services

This section describes a range of services that are planned for implementation by the [*Eastern/Southeast*] RRC. Table 2 identifies these services and presents the following information:

- Description of the service
- Resource Requirements: general description of staff and other tangible resources required to establish and provide the service

Table 1 describes a comprehensive set of potential RRC services—not all of which may be needed or appropriate for all RRCs. Also, planned RRC services will not all be put in place initially after RRC formation. As discussed in Section 5, RRC services and programs will be ramped up gradually. Decisions on when to implement a specific program will be based on user needs and availability of resources. For maximum efficiency and best use of resources, it is very important that different RRCs coordinate their implementation and delivery of services in a way that results in a sharing of resources. A number of services depend on the development of Web-based applications (e.g., professional contact directory) this, like some other RRC services, should be developed and supported in one location using available server and network resources (managed by one RRC or by the IGO).. Web-based services could be deployed with common access by the user regardless of the RRC. Access to information or services specific to one or more RRCs could be enabled by simple menu picks. Each RRC would update information to a central server, thereby eliminating the need to acquire and/or support redundant systems.

Services appropriate for the *Eastern/Southeast* RRC are identified in Table 2.

Table 1: Potential RRC Services

Potential Program or Service	Description	Resource Requirements
A. Directory of GIS Contacts and Professional Networking Support	Compilation and ongoing update to a Web-accessible directory of Idaho (and perhaps out-of-state) GIS professionals. These contacts will agree to have their contact and basic experience and skill sets posted and agree to be available to Idaho GIS users that need advice and basic assistance in GIS development and deployment. This supports the concept of mentoring and mutual support among GIS user organizations. This Web service should be deployed on a statewide basis (single hosted site) by the IGO or a specific RRC) but participants from all RRCs would post contact information and keep this Web service up to date.	Minimal time or system resources
B. GIS News of Regional Importance	This would be deployed as Web service which could be accessed to obtain news of interest to parties in the region. This would best be implemented at a statewide level (by the IGO or a specific RRC) since many news items important to the region will also have a statewide significance. It could be formatted as an e-newsletter or a monthly listing of new items with hyperlinks to sources providing additional information. News items would include such topics as: a) training opportunities, b) important industry announcements, c) personnel changes, d) grant opportunities, e) new projects, and f) IGO/IGC actions. While this would be statewide service hosted from one location, each RRC would contribute items.	
C. GIS Professional Labor Pool Management	This service takes the "GIS Contact Directory" a step further by organizing and managing a pool of GIS specialists, primarily among government agencies, who may be able to provide consulting or development services to other government organizations that lack the in-house staff. Services would involve more than simple advice or assistance provided at no cost. Organizations would offer their GIS staff, as availability permits, to provide support, at a standard fee, to other jurisdictions. The RRC would help coordinate requests for and assignment of services and would provide financial management services as needed to reimburse the organization providing the services. This could include an accounting mechanism under which GIS personnel for RRC participating organizations could provide services supported by the RRC and have their home organization (e.g., County government) reimbursed for their employee's time. If implemented, it is important that it does not present conflicts with services more appropriately provided by the private sector.	Depends on need and availability
D. GIS Project/Best Practices Catalog	Compilation and ongoing update to a Web-accessible "library" of successful GIS projects, and demonstrated "lessons learned", and best practices. This Web-based library would provide practical examples and project approaches GIS technical development and program management) that could be reviewed and used by other organizations. Supports the concept, "don't reinvent the wheel". This Web service should be deployed on a statewide basis (single hosted site) by the IGO or a specific RRC) but participants from all RRCs would post contact information and keep this Web service up to date.	Minimal time or system resources
E. Support Advocacy and Building Awareness of GIS Benefits	In coordination with the IGO and the IGC, RRCs will participate in activities to promote awareness of GIS with a focus on building support among senior officials and decision-makers. RRC participants will provide testimonials illustrating GIS benefits, participate in presentations at meetings, and provide support to the IGO and IGC in budget requests. RRCs will coordinate contact with senior management and elected officials in their region to garner support for GIS adoption and enhancement by RRC participating organizations	Moderate time requirements at selected times when advocacy is required

F. Regional Framework Steward	A variety of coordination and support activities to support and facilitate Framework data stewardship—playing an intermediate role between Source Stewards (e.g., County and City GIS programs) and Framework Stewards assembling and updating statewide Framework data sets. This role does NOT imply primary data compilation and updating—it is a coordination and support role to assemble data from Source Stewards and submittal to state Framework Steward. This RRC role is appropriate for Framework Themes and Elements for which the primary Source Stewards are organizations in the RRC region (e.g., local governments). The RRC would accept data from Source Stewards, perform QA, edgematching between jurisdictions, reformatting, packaging and submittal to the Framework Steward. An important role would be to support adoption and use of approved data standards by Source Stewards and assurance that submitted data complies with standards. This RRC function could provide economy of scale benefits by regional centralization of some data stewardship activities and would provide a simpler organizational structure for submittal of updated Framework data to the state level Framework Steward. Since Framework stewardship activities are specific to individual data themes or elements, it is possible that this Regional Steward role is put in place only for selected themes or elements. NOTE: This potential RRC service could involve quality control and quality assurance work to ensure that data submittals adhere to content and format requirements for the Framework Theme or Element. The assigned Framework Steward would perform standard QA checks as part of the established horizontal and vertical integration processes. The option is open for the RRC to work with private contractors that may assume roles for any data stewardship activities.	Need dedicated staff with GIS data skills, computer hardware, and GIS software
G. GIS Data/Metadata Compilation and Update	Technical services involving the compilation of GIS data sets. This may involve field data collection, scanning/digitizing from hardcopy sources, integration/formatting of existing automated sources for the development and/or update of Framework or non-Framework GIS datasets. It is expected that a considerable amount of GIS data compilation will be carried out by organizations in the region (or through contractors that they hire) but there may be some opportunities to use RRC resources for certain GIS database development projects (possible in partnerships with private data conversion firms). It is expected that local government jurisdictions in the region with active GIS programs will compile and update Framework data and play a Source Steward role for maintenance of statewide Framework datasets (possibly with RRC coordination as a Regional Framework Source Steward). But lower resourced local governments or special service districts will require RRC support (perhaps with services provided by private contractors) to these lower population jurisdictions. In addition, there may be special projects or non-Framework data, needed by RRC users for which the RRC can play a role.	Need dedicated staff with GIS data skills, computer hardware, and GIS software
H. Support/ Encourage Adoption of TIM Standards and Policies	Designated RRC representatives track and support the development and approval of GIS standards and policies (approval by IGC and ITRMC). Includes raising awareness and understanding of standards and policies among GIS users in the region and supporting their practical adoption and use. Requires participation in standards review and meetings. RRCs will play a role in identifying and enlisting participants (from the region) in standards and policy development activities and in presenting ideas for IGC consideration. Also, the RRC may evaluate, prepare, and adopt GIS data standards (non-Framework) or standard practices and policies that apply specifically to participants in the RRC region. This is complemented by Program N calling for active involvement in IGC standards development by organizations in the region.	Moderate staffing requirements needed to participate in standards development and their adoption by RRC participating organizations
I. Organize/Host GIS Meetings and Events	Support in planning and organizing GIS meetings and events directed mainly at people and organizations inside the RRC region. These may be project meetings, training sessions, workshops, etc. This includes scheduling, identifying and lining up facilities, promotion, registration services, establishing electronic access environment, etc. This may include events sponsored by the RRC or events sponsored by another organization (University group, vendor) for which the RRC provides support services.	Varies depending on the number of events

J. Prepare Project Specifications and Support GIS Services Procurement	Work with regional partners (mainly local governments) to prepare technical specifications and procurement documents for GIS products and services from the private sector. Also support local governments in evaluation of proposals and selection of contractors and vendors. This may include procurement of GIS database services, software procurement, application development services, Web hosting services, etc. The RRC may use contracted services in support of this service.	Requires access to library of template specifications and RRC person in "consultant role"
L. Joint Project Negotiation and Management Support	Provide facilitation for joint projects involving RRC participating organizations in the region. This may include support in negotiations with GIS service providers and contract preparation for GIS services (mainly database development) that involve multiple jurisdictions/organizations in the region. Follow this with project management support (contract management, review/approval of deliverables, status reporting, etc.) on behalf of the project participants.	Moderate—need RRC person with technical knowledge and project management skills
M. Coordinate, Promote, and Provide GIS Training and Education	Involves assessment and monitoring of training and education needs by the GIS community inside the region and identification of training and education opportunities for which there might be interest (instructor led training sessions and workshops or Web-based training sources like the ESRI Virtual Campus). In addition, the RRC could plan, organize, and conduct training sessions. This potential service area for the RRC is not meant to replace training programs and opportunities provided by existing organizations. The RRC training and organization role would involve support in promotion, coordination, and facilitation in support of these other organizations. Training and education would only be sponsored or provided by RRCs to fill in needed gaps when training is not available from other convenient sources.	Moderate-requires trainers, training materials and facilities for training sessions
N. Provide Regional Representation on IGC and Communication with IGO	Ensure that representatives from the region participate on the Idaho Geospatial Council (IGC), on the IGC Executive Committee as appropriate, and maintain regular communications with the IGO to keep abreast of developments impacting TIM, and play an advocacy role for TIM initiatives impacting the region. According to By-Laws IGC participation is open and Executive Committee members are elected. There are reserved Executive Committee seats for GIS TreC and the "geospatial Clearinghouse (INSIDE Idaho). The By-Laws call for remaining seats to be filled by designated stakeholder organization categories (state agencies, federal agencies, local government, tribal government, utility, private sector). RRC representatives should attend IGC meetings and propose candidates for Executive Committee seats.	Moderate
O. Grant Research Application Preparation, and Administration	Assign RRC personnel and assume ongoing role to identify potential grant opportunities and assess appropriateness of upcoming grants to support TIM and GIS programs in the regional (and for the state as a whole). Participate in the preparation of grant applications (with the IGO, government agencies, and other RRCs as appropriate) and play an oversight and grant administration function.	Requires dedicated staff resources for grant research and preparation
P. Hosting GIS Data and Services*	Providing hosting services for organizations in the region—particularly small jurisdictions which are not maintaining GIS infrastructure or data. Hosting would include data (and perhaps data update services), required software, and applications for Web-based access to "subscribers" in the region. One option, in addition to the RRC providing hosted services is to act as a "broker" to help plan hosted services and engage private service providers to support user organizations in the region. Planning for hosted data or services should consider the possibility of using "cloud computing" which would use Web-based systems and software maintained by another organization (e.g., private company with data center and software services), thereby reducing or eliminating the need to maintain hardware and software. This potential RRC service does not imply a replacement of hosting services already provided by another public or private organization. Hosting services would only be pursued in cases where a needed service is not conveniently and cost-effectively provided by another organization. In such cases, potential opportunities for the RRC to collaborate with other organizations (including other RRCs) or private sector companies should be considered.	Would require server, SW, high-speed network and system admin support. Use of Cloud-based services reduces in-house needs but would require service fees.

Q. Designing/ Developing GIS Applications and Web Services and Facilitate Technology Transfer	Involves a service, similar to that of a private consultant to design and develop custom GIS applications and Web services for an organization in the region. This work may result in applications installed on the user's system or providing them in a hosted environment. RRC personnel may participate in application/Web service design with or without involvement of private firms. In addition, the RRC could provide a technology transfer function—providing information about successful application/web services already implemented by jurisdictions and support in use of these in other jurisdictions in the region. Design and development of applications is not considered to be a core service of the RRC but could take place under special circumstances. Such services would be provided by the RRC in cases where direct competition with the private sector would result. The RRC could help to set-up and manage application development projects with private sector contractors (particularly in cases where the project results would be used by multiple organizations in the RRC region).	Moderate. Requires personnel with GIS technical skills

*Hosting data or services could make use of computer hardware, software, and network infrastructure owned and maintained by the RRC or managed by a cooperating organization. There is also an opportunity to provide such services using hardware and software provided by separate data center (under a lease or subscription agreement) or user of emerging "cloud" services in which the RRC, for a fee, taps into server and software services by a cloud provider. Under these environments where the hardware and software is not directly managed by the RRC, the RRCs role would be one of management and oversight.

Table 2: Services Selected for Implementation for the *Eastern/Southeast* RRC

**need comments about priority and implementation/operation issues specific for Eastern, Southeast or both regions

Potential Program or Service	Priority	Implementation/Operation Issues for the *Eastern/Southeast* RRC
A. Directory of GIS Contacts and Professional Networking Support	5	
B. GIS News of Regional Importance	4	
C. GIS Professional Labor Pool Management	2	
D. GIS Project/Best Practices Catalog*??	5	
E. Support Advocacy and Building Awareness of GIS Benefits	4	
F. Regional Framework Steward	4-5	
G. GIS Data/Metadata Compilation and Update	2	
I. Support/ Encourage Adoption of TIM Standards and Policies	5	
J. Organize/Host GIS Meetings and Events	4-5	
K. Prepare Project Specifications and Support GIS Services Procurement	3-4	
L. Joint Project Negotiation and Management Support	3-4	
M. Coordinate, Promote, and Provide GIS Training and Education		
-Support training provided by other organizations:	4	
-RRC plans and provides training:	2	
N. Provide Regional Representation on IGC and Communication with IGO	5	
O. Grant Research Application Preparation, and Administration	4	
P. Hosting GIS Data and Services**	3-4	
Q. Designing/ Developing GIS Applications and Web Services and Facilitate Technology Transfer	3	

*Subjective indication of importance and appropriateness for the Easter/Southeast RRC. A score of "5" means very high importance and a score of "1" indicates low importance and that this service should not be strongly considered for initial RRC operations

2.2 RRC Service Providers, Participants, and Users

Services provided by the RRC need to be defined in the context of people and organizations that are providing RRC services and those using those services. For the purposes of this business plan the following terms are defined:

RRC Users: Users (also referred to as "customers), include any organizations or individuals inside or outside the RRC region that use any of the RRC services. This is a general categorization describing **any type of use of or participation in RRC programs and services**. It may therefore encompass individuals or organizations that

also fit into the other categories (Member, Service Provider, Associate) but it also includes individuals or organizations that only use RRC services but which do not have other RRC involvement. For example, All "RRC Members" may be considered "RRC Users" but RRC Users or Customers may not necessarily be "RRC Participants". For example, a private contractor from outside the region or the state (and not an RRC Member or Associate) may use the services of the RRC.

RRC Members: It will be useful to formally identify organizations and individuals which choose to be identified as RRC participants. This primarily includes people and organizations inside the RRC region and encompasses, potentially, all GIS stakeholders: local government jurisdictions, tribal governments, state and federal agencies with a presence in the region, utility organizations, regional agencies and special service districts, private companies, universities, and the general public. These "participants" at a minimum, would be identified on a contact list maintained by the RRC, would receive basic services (e.g., access to Web-based services like a contact directory, GIS news), and which may chose to use other RRC services. Membership will be voluntary but all public, private, and non-profit organizations in the region, with an interest in GIS, will be encouraged to become active members.

RRC Associate Organizations: This is a special category for organizations with which there is a formal agreement (memorandum of agreement, contract) for mutual support. This would typically include other public or non-profit regional agencies, organizations, or professional associations with interests in the region with missions that are compatible and/or complementary to the RRC. Agreements would define sharing of resources and potential funding provided to the RRC in exchange for GIS services. **some examples of regional agencies that might be associate organizations in one or more regions include: Economic Development Association (regional offices), COGs, UofI Extension Program (regional centers), Highway Districts, INL, etc. In addition, Associates may include private companies that offer GIS and related services to organizations in the region and support (monetary or in-kind) to the RRC.

RRC Service Providers: This includes people and organizations which provide RRC services. This covers RRC administrative support functions, RRC management, and all technical and operational work associated with the RRC services. Included in this group are staff people assigned RRC roles (full or part-time) and people or organizations in or outside the RRC region that provide time and resources for accomplishing RRC services.

2.3 RRC Benefits and Business Justification

**We need to do additional investigation and brainstorming on benefits. This should include tangible and intangible benefits. Tangible benefits are those, which can be measured in monetary terms (e.g., dollars saved, generated, or avoided costs) or staff time (e.g., efficiency gains or avoided staff increases). Intangible benefits are those which cannot be easily quantified (improved decision making or responsiveness) or which have a potential quantifiable value but cannot be easily measured or predicted. We should get some discussion on the following potential benefits—it will be helpful to cite specific benefits or examples:

Tangible Benefits

- Reduction in staff time for processing data updates for Framework Stewardship
- Reduction in cost and staff time in developing/deploying GIS applications (through sharing or apps and expertise)
- Cost savings through economy of scale in joint GIS database or application development projects
- Improved position for submitting and getting grant awards for activities of interest to RRC participants
- Improved and cost-effective services for GIS data/application hosting for low-population jurisdictions without active GIS programs
- Provides better position from which to apply for and receive grant awards that target local communities and regional conditions

Intangible

- More direct access to senior officials in the region—increasing awareness and support for GIS
- Effective way for regional participants to voice their needs and participate in IGO and IGC programs—better assurance that regional needs will be taken into account
- RRC role in GIS data and service hosting promises to increase access to GIS technology by small jurisdictions (low population counties and cities)
- Quicker GIS program development and deployment through access to best practices and professional networking enabled by the RRC
- Support and oversight on geographic data standards improves opportunities for data sharing and database integration
- Support for adoption of standards resulting in an improved environment for sharing data among RRC participants
- Provides a basis for cross jurisdictional economic development programs

3. RESOURCE AND OPERATIONAL NEEDS FOR RRC OPERATION

3.1 Overview of Resources

Resources for RRC operation include all funding, staff, and tangible commodities necessary for RRC operation:

a) Office location and space: including furniture, office supplies, and other amenities),

b) Computer systems and equipment: Servers, desktop or laptop computers, peripheral devices, networks, software, copy machine, projection units, etc. This category also includes hardware and software maintenance and support service contracts.

c) Personnel: Management and administrative support personnel and technical/professional staff.

d) Funding: Monetary contributions and support for RRC development and operation

Information gathering conducted for this business plan preparation indicates that there is a general consensus that each RRC needs a physical location and facilities from which RRC operations are managed and services are provided. However, there is an acknowledgement that limitations on funding, at least initially, will limit the scope of RRC operations and the facilities and staff that can be supported. For this reason three key principles will guide the establishment of RRCs and offering of services:

- RRC development should take a "go-slow", incremental approach. Put in place high-priority and lower cost services first and gradually add additional resources and services. A general phasing for *Eastern/Southeast* RRC development is explained in Section 5.
- Establish the RRC as a program managed by an existing organization rather than creating a new organization. Section 4 explains organizational options and the recommended approach for the *Eastern/Southeast* RRC.
- Avoid an over-reliance on permanent, salaried RRC management or technical personnel but use available services provided by a "host organization" of the RRC, volunteer time, and non-traditional staffing options. Section 3.3 explains some recommended options.

Comment [plc4]: For the Southeast RRC, the logical approach is to incorporate RRC functions as part of the ISU GIS Center in Pocatello. For other regions, an RRC site and host organization is not determined. The Eastern Region, the RRC could use University Place as an organizational home with involvement of ISU-Idaho Falls and perhaps support from INL. **The consultant team has conducted initial investigations about these options and discussions have been positive. For the Northern Region (5 most northerly counties), a proposal has been prepared for RRC creation and sponsorship by the Panhandle Area Council. For the North Central RRC, potential organizational homes are UofI-Moscow or the UofI Extension Programs in Coeur D'Alene. For the Southwest Region, there does not appear to be clear ideas about a host organization or physical location

3.2 Office Space, Computer Hardware, and Office Equipment Requirements

Space and facility requirements will change over time as RRCs evolve and expand their service provision. It is assumed that RRCs will use facilities of a host organization—with necessary arrangements for cost reimbursement consistent with the policies of the home organization and terms established for RRC hosting. At a minimum, each RRC will require the following:

Server(s): Access to a Web Server (mid-range Windows-based server) and, ideally an application and/or database server (behind a firewall) with sufficient database storage space for GIS data, orthoimagery, and database requirements.

Network Access: High Speed network link for external Web-based transactions and local area network access (wired or WiFi) at the RRC site.

Server Software: Server software license requirements, in addition to operating system, network management, and Web Server software include: a) full Microsoft Office Suite and other document-based software (e.g., Acrobat), b) Web site design and management software c) database Management software (SQL Server), d) ESRI ArcGIS Server, e) Additional server-based GIS or image processing software as needed for project work, f) additional non-GIS server-based analysis, modeling, visualization, or other application software needed to support RRC projects.

Desktop Computers: A limited number of high-end desktop computers with sufficient processing speed, memory, graphics processing, and large display screen to handle compute intensive GIS, image processing, and modeling tasks. The Desktop computers should be loaded with the full ArcGIS desktop suite (at least version 9.3 but preferably version 10), selected ArcGIS extension packages, and other desktop GIS, image processing, or modeling software.

Peripheral Computer Devices: At a minimum, a page size (letter, legal size) monochrome laser printer or multi-function device (print, scan, fax, copy) and a C-size color ink-jet printer should be available. Specific RRC services will benefit from access to a large format (E-size) color ink jet plotter and/or a large format scanner.

Meeting Room facilities: A meeting room with table, chairs, whiteboard and ideally equipped with desktop computer, projection device, network links for use in group meetings and training sessions. Availability of desktop computers for training would be beneficial.

Office Space: Limited space (cubicles or enclosed offices with desks of table) for RRC employees or temporary project workers.

Office Equipment and Supplies: At a minimum, a copy machine (preferably a digital networked copy/printing device) should be available and there should be a source of basic office supplies.

GIS Library: Each RRC should have access to a library of references that support GIS management and operations. The ideal library would combine hardcopy materials (e.g., books, copies of appropriate trade journals, white papers) with resources in digital form (electronic publications, computer-based GIS training tools), and a computer for searching available resources and for accessing Web-based sources.

As already mentioned, the degree to which the RRC can make use of facility, computer, and equipment resources of an existing organization, the more efficient it will be. It is expected that, as services expand with a growing demand, increased funding will be available for expansion of physical resources.

It should also be noted that the computer hardware and software resources explained above would not necessarily need to be locally available to each RRC. High-speed Web access would allow multiple RRCs to share resources (server hardware and software) maintained at a remote site in the state (e.g., an RRC initially uses server resources put in place at another RRC). This server sharing would also support the coordinated development and support for basic RRC services (RRC Home Page, contact directories, project catalog, etc.). The concept of remote server access brings up the concept of Cloud-based services—a server or multiple servers managed by a cloud-based service provider which, for a fee, provides compute, storage, and software services via the Web.

In this environment, users are fully separated from server and software administration tasks which the provider handles.

3.3 Management and Staffing Requirements

3.3.1 RRC Management

Each RRC should have a manager whose responsibility it is to oversight RRC set-up and development, staff recruitment, work delegation and monitoring, handling of legal and financial matters, exploring and initiating new projects, and preparation of status reports. This manager is also the main interface with the IGO and IGC. In addition, this person or another management level person needs to play a role in RRC marketing and promotion—to raise awareness about the RRC, sign-up additional participants and associates, investigate and help secure new funding sources. Initially, it is expected that this management role will require about a .25 full time equivalent (FTE) but is expected to grow over time—perhaps to the point where a full-time manager is required.

3.3.2 Administrative Support

This function includes standard office administrative work including receptionist duties handling and routing communications, setting up logistics and facilities for meetings, training sessions and other events, clerical tasks, inventorying and ordering supplies, and providing other support to management personnel and staff.

3.3.3 Technical Personnel

This staffing category includes any personnel who provide technical or operational support for RRC activities and projects. The main required skills include: a) Server/network administration and monitoring, b) Web site design and maintenance, c) GIS database design and development, d) GIS software and application development and use, e) technical training and communications, f) technical project management. The specific levels of staffing to fulfill these roles will begin modestly but grow overtime.

3.3.4 Options for RRC Management and Staff

With the expectation that initial and possibly ongoing funding for RRC operations will be limited, filling RRC staff roles should not rely on full-time dedicated positions. Operational and cost efficiency calls for maximum use of the following staffing approaches:

- Use of resources from the "home organization": To the extent possible, existing personnel of home organization (specify for *Eastern/Southeast* region) should fill RRC management, administrative support, and technical staff—addressing requirements for additional funding to cover RRC activities using available sources.
- Volunteer time: RRC operations, as part of The Idaho Map (TIM) program will always need and benefit from the donation of time from GIS professionals in member organizations (any public, private, or non-profit organization). This is occurring now through the regional user group and participation of GIS professionals on TIM Committees and Working Groups. There is a possibility also of creation of an inter-governmental reimbursement mechanism in which one RRC

Participant uses, on a short-term basis, hours from a GIS professional in another Participant organization.

- Student Interns: Employment of qualified undergraduate or graduate students from any college or university, on a short-term basis (for a brief project) or in a longer-term co-op or internship program. Costs for student labor could range from no-cost to modest hourly pay rates. Such programs work best when there is a clear agreement with the college or university and when the experience and skills of candidates may be reviewed in the selection process.
- Donated Services from the Private Sector: In some cases, GIS and IT service vendors and consultants may be interested in providing donated services or support for an RRC project.
- Paid Contract/Project-based Personnel: When an RRC sponsored or managed project is supported with appropriate funding (e.g., grant award), it is efficient to use some paid services from a private contractor (e.g., GIS consultant).

4. RECOMMENDED ORGANIZATIONAL/OPERATIONAL MODEL AND IMPLEMENTATION PHASES

4.1 Organization Type

During the information gathering process which this business plan is based, a number of organizational types were proposed and reviewers provided comments on their preferences. A general consensus on the following key organizational requirements was established:

- Establishment of the RRC organization should be as administrative and legally streamlined as possible
- The RRC organization should have a legal status with the ability to handle monetary transactions and to enter into formal contracts and agreements
- The RRC organization should always maintain its identity as part of The Idaho Map (TIM) program and its operational connection with the IGO and IGC.
- The RRC organization should be positioned in a way that supports collaboration with existing organizations and programs impacting GIS stakeholders in the region

Of the six organizational types presented for review and comment, three were identified as the most appropriate for one or more of the RRCs:

- B. Existing University-based program
- D. Existing Regional Organization
- E. Multi-organizational Consortia

**We need to customize text for the Eastern/Southeastern RRC. Potential host organizations for organization types B and D have been identified for one or more regions: ISU GIS Center for Southeast RRC, University Place for Eastern RRC, Panhandle Area Council for Northern RRC, UofI-Moscow for North Central, and UofI Extension Program for support to one or more RRCs. RRC activities and services would share facilities, computer system, and staff resources with the existing program. The existing programs (Option B and D). Option E is a possibility but a definite third choice. Commenters from the SW region indicate that there is no clear consensus or options identified at this time for organizational type or site.

Table 3 presents all 6 types with the shaded boxes indicating the three most feasible options.

Table 3: Possible RRC Organization Types

Comment [plc5]: When individual business plans for the Southeast and Eastern Regions, only the option selected will be presented.

Organization Type	Description	Suitability
A. Informal, "Virtual" Organization	RRC does not have a fixed location or a highly formal administrative structure. RRC work and activities uses volunteer contributions of time and resources. This is similar to the way in which existing regional GIS User Groups are organized. If this option was chosen, the logical approach would be to re-define the mission and operations of these Regional GIS User Groups to take on high-priority RRC services.	In the short-term, this option may be feasible for some or all regions since it implies minor adjustments to current GIS User Groups. This is not an acceptable long-term option since resources would be limited and lack of a formal organizational structure would restrict RRC activities requiring legal and financial management.
B. Existing University-based program	RRC roles and activities would be assumed by an existing University-based program. The stated missions of existing programs would be modified to reflect RRC responsibilities, additional resources (as available) would be applied, and RRC administration would be assumed by the existing University program. Potential candidates include: a) the ISU GIS Training and Research Center (TreC), b) the UofI Library (INSIDE Idaho), c) UofI Extension System.	This is a viable option for initial and long-term RRC development and operations—at least for certain RRCs. It is attractive since it does not require the creation of a new organization and the compatibility of the existing programs with the RRC mission. In addition, this option may provide the most efficient resourcing approach by use of existing facilities and a University-based labor pool.
C. New University Program	This option is similar to Option B but requires the establishment of a new program (either tied to an academic department or a non-academic office at a designated University. It would require creation of a separate management and administrative structure and assignment of personnel.	This is a viable option and has the advantage of focusing the RRC mission through a new program. It has the disadvantage of requiring more time and complexity in creation, the need to assign dedicated resources, and potential barriers in sharing resources with existing GIS-related programs.
D. Existing Regional Organization	This option would place the governance and operational management of an RRC in an existing regional agency that serves a quasi-governmental role that is compatible with the RRC mission and which has responsibility over an area that generally corresponds to the RRC area.	This is a possibility for some RRCs. In fact, some of the RRC proposals have cited the geographic areas of regional agencies (Idaho Economic Development Association regions) as a basis for RRC territories.
E. Multi-organizational Consortia	This organization type is established and defined through a multi-party agreement, signed by organizations in the region that pledge commitment to the agreements terms. These terms would address participation in RRC activities, contributions of resources (money, staff, facilities), approaches for joint project work, and other provisions. This option would require a management and administration function which could be formally assigned to one or more of the parties of the agreement or the establishment of a non-profit organization (see Option F).	This is a viable option for RRC establishment and has the advantage of clearly defining participation and commitments by organizations in the regions. It has the disadvantage that it does not necessarily define an administrative and legal authority—one party would need to take this role or a new organization would need to be created. This option could be used with any of the other RRC options, to define roles and relationships among participating jurisdictions in the region
F. New Non-Profit Organizations	The RRC would be established as a formal, Non-Profit Organization under Section 501 of the IRS Tax Code* (Note: there are a range of Non-Profit categories under Section 501). The 501 provisions establish the organization as Tax Exempt and allow it to assume legal and financial management responsibilities.	This is a viable option since it provides a suitable foundation (with necessary management, legal, and financial provisions) for all potential RRC operations and services while preserving a tax exempt status. The main disadvantage is complexity of creation of a new organization and the need for assignment of resources (as opposed to having access to resources of an existing organization).

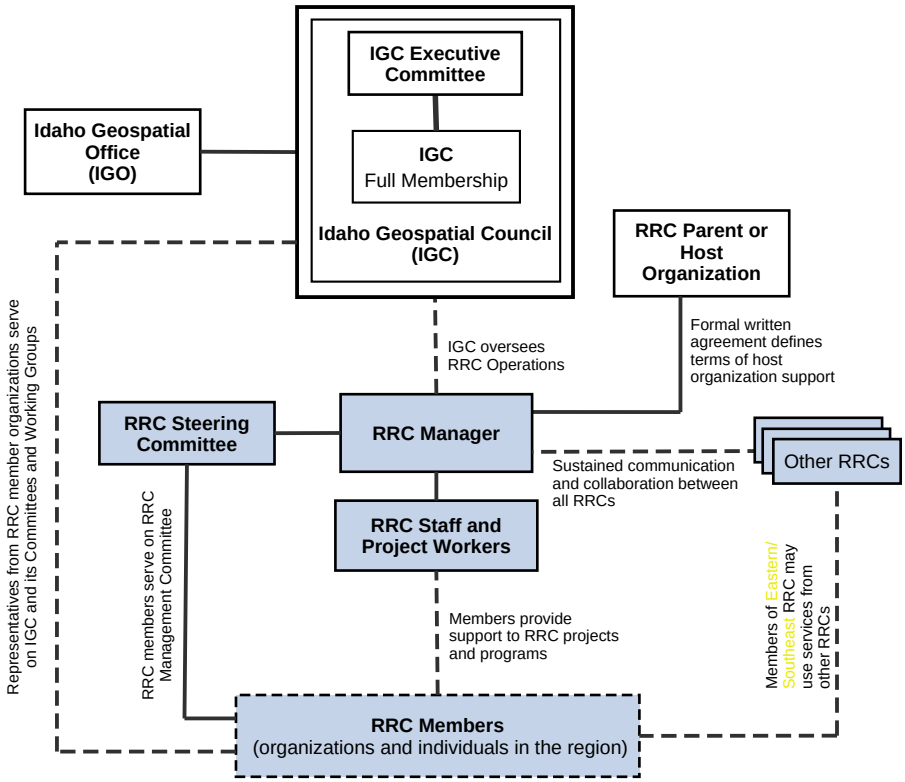
4.2 RRC Organizational Structure

With the organizational type and organizational home established, it is necessary to put in place a management structure for each RRC. Figure 1 below depicts the recommended management structure. The recommended structure allows for a level of autonomy that gives the RRC freedom to recruit members, pursue funding sources, and carry out project work but it maintains the RRC identify as part of the broader statewide TIM program. Figure 1 shows oversight role played by the IGC and its Executive Committee and the relationship with a parent or host organization for the RRC.

An RRC manager will be assigned and this position, at least initially, will be a part-time function ideally filled by an individual whose existing position in the host organization is compatible with the RRC mission and objectives. This organizational structure includes an "RRC Steering Committee" made up of a fixed number of people (6 to 12 recommended) from RRC member organizations. This group represents the RRC membership and broader community of users and therefore, it is important that its members draw on different types of organizations in the region (different levels of government, regional agencies, private firms, and non-profit organizations). The Steering Committee participates in all initial planning and RRC set-up. After the RRC is established and a Manager is assigned, the Steering Committee acts in an advisory role working closely with the Manager in ongoing RRC operational planning, putting in place programs and services, and monitoring RRC operations. This group also helps ensure participation in IGC initiatives from member organizations in the region, and it helps recruit volunteers for RRC projects.

Figure 1 depicts the relationship among multiple RRCs. This underscores the important need for coordination between the RRCs and a requirement for collaboration and sharing of resources to avoid unnecessary duplication is development and operation of programs and services. Also conveyed by the diagram is the relationship between multiple RRCs—this structure does not place restrictions, on people or organizations from outside one RRC region from using services or participating in programs from another RRC.

Figure 1: Management and Oversight Environment



It is recommended that RRC formation include the preparation of an RRC "By-Laws" or "Operational Charter". This document will be approved by the IGC Executive Committee and its basic terms will apply to all RRCs (minor wording changes may be approved to address specific circumstances of the Eastern/Southeast RRC. It is not essential that a Charter or By-Laws be prepared in Phase 1 since a ratified business plan will serve as a guiding document for Phase 2 operations. During Phase 2, a formal Charter or By-laws should be prepared using content from the business plan and additional terms that describe RRC organizational structure, roles, and operations. This By-Laws or Charter Document should include the following topics:

- definition of the organizational structure and RRC management,
- the range of services which the RRC may provide,
- limits of authority in financial, contractual, and legal matters
- RRC relationship with host organization

- types and terms of RRC participation (members, associates, users)
- RRC Steering Committee function and composition
- relationship with and oversight from the IGO and IGC

4.3 Relationships and Coordination with Other Organizations

The RRC should serve all public, private, and non-profit organizations. As described in 2.2 registered members (individuals or organizations) will receive basic RRC services but any organization in the region may request RRC services and participate in programs that it sponsors. There are a number of important relationships between the RRC and other organizations that have particular importance:

- RRC host organization: A formal agreement exists in which the host organization [**be specific for each RRC] agrees to terms for supporting the RRC and defines important aspects of organizational governance. The RRC works within the organizational structure of the host organization and carries out necessary management actions impacting personnel, contractual, financial, and operational responsibilities. The RRC manager is an employee of the host organization with an assigned role of directing RRC activities.
- Idaho Geospatial Office (IGO): The IGO provides support to the RRC and ensures that information about the TIM program is provided to the RRC. The IGO, within limits imposed, provides tangible support (monetary and in-kind) for RRC development and organization. The IGO also helps coordinate RRC development and operations that involve multiple RRCs.
- Idaho Geospatial Council (IGC) and Executive Committee: The IGC Executive Committee (IGC-EC) approves the RRC Business Plan and endorses the formation of the RRC. RRC members volunteer time for serving on the IGC and specific Working Groups or Committees established by the IGC (or it's Executive Committee). As provided for in the IGC By-Laws, RRC representatives serve on the IGC Executive Committee (IGC-EC). The IGC-EC is also a signatory on formal agreements establishing the RRC (e.g., agreement with host organization). **do we want to say this?
- RRC Associates: As explained in 2.2, RRC Associate organizations are those for which there is a mutual support relationship (ideally documented in a formal agreement). RRCs provide and except support (e.g., funding, in-kind support, services) based on the terms defined in the Associate agreement.
- Other RRCs: Communication and collaboration among RRCs is a guiding principle during RRC development and ongoing operations. All RRCs are obligated to provide appropriate support and coordination of services with the goal of efficiency and avoidance of duplicating resources. The IGO should play a role in facilitating this coordination but communication should occur regularly between managers and steering committees of the different RRCs. Also, there will be no restrictions on the use of RRC services or programs by an organization or individual outside the RRC's region.
- Private GIS Service Contractors: The RRC plays an important role in providing information about the availability of services by private contractors to the RRC Members. In selected cases, the RRC plays a coordination role in specifying

project requirements, selection of private contractors, and ongoing project management overseeing the work of the selected contractor. This role is most useful in cases in which the contractor is providing services for multiple organizations in the RRC region.

- Existing Regional GIS User Groups: During the period of RRC development (see Phase 1 in Section 5), the [SEIGUG or EIRGIS] will remain in existence, continue its activities, and participate in the formation of the RRC. At an appropriate point (end of Phase 1 or early Phase 2), at which the existing user group services have be implemented by the RRC, the [SEIGUG or EIRGIS] will be disbanded.
- Federal and State Agencies: Federal and state agencies with regional or district offices in the RRC region will be encouraged to become formal RRC members. These organizations use and take part in any RRC program or service. In addition, these agencies could become RRC Associates based on formal agreements with the RRC or they may be partners in joint projects in which the RRC is involved.
- University programs: **make specific reference to University links with the Eastern and Southeast RRC.
- Xxxxxxxxxxxxxx: any specific org of importance to Eastern/Southeast RRC

4.5 Operational Practices and Service Delivery

Establishment of the RRC must be accompanied by a set of management and administrative practices that support RRC operations, communications, and delivery of services. The main "core management and administrative practices" are described in Table 4.

Table 4: Core Administrative and Management Practices

Core Practice	Implementation/Operation Issues for the ***Eastern/Southeast*** RRC
A. Staff Recruitment and Oversight	Includes all work involved with identifying and hiring RRC staff for any management, technical, or administrative role regardless of the personnel classification (e.g., student intern, part-time, volunteer, etc.) This is the primary role of the RRC Manager. The role includes all administrative work in establishing a position, filling an existing position, or defining roles for personnel positions that are already part of the host organization. Oversight involves staff orientation, assignment of work, ongoing review of work and guidance, and evaluations.
B. Receiving Visitors and Callers	Routine but important receptionist and user response activities that support a spirit of quality 'customer responsiveness" in the way the RRC accepts, responds to, and tracks calls, visitors, or email inquiries. Any RRC personnel may have a role here but ideally, there should be one or more individuals who have a primary duty of initial response to visitors or callers. Specific procedures should be documented that define an efficient workflow.

C. Responding to Requests for Products or Services	Related to Core Practice B (Receiving Visitors and Callers) is a well-defined process for follow-up with requests for the use of or participation in RRC programs and services. The RRC Manager or a technical staff person should be assigned for timely response to an inquiry and in appropriate steps to scope out and provide the requested product or service. The specific response will depend on the type of request and resource impacts of the RRC. For requests that go beyond routine activities (signing up a new organization as an RRC Member or providing access to a Web services), a "work ticket" should be created, the potential "project" should be scoped (define basic approach, result, and resources required) with a response to the requestor and possible initiation as a new project.
D. Promotion and Member Recruitment	Promotion of RRC programs and services is an on-going activity which is a key role of the assigned RRC Manager (although specific activities may be assigned to other personnel). This includes distribution of information about the RRC (primarily to organizations and individuals inside the RRC region) through multiple channels (Web site, presentations at meetings, direct calls or email messages, distribution of promotional literature, etc).
E. Project Planning and Management	This Core Practice applies to cases in which the RRC is called on to provide resources and expertise for a specific project (e.g., acting as a project manager for contracted database development services). For these cases, there should be a defined workflow and templates that support best practices for planning a project (defining tasks, schedule, and resources) and for ongoing management (project tracking, deliverable review, reporting).
E. Work and Financial Tracking	A routine function for which the RRC manager is primarily responsible for overseeing. This address established procedures, in the host organization, for employee time reporting (hours by project or activity area), employee expenses, and all routine accounting and bookkeeping work.
F. Scheduling Use of Facilities and Event Organization	Facilities of the host organization or an outside organization will be available to the RRC for holding meetings and other events. Such facilities may be provided at no cost by the host or an outside organization or fees may be required. Whatever the circumstances, designated RRC staff will have the responsibility for identifying appropriate facilities, scheduling their use, making sure that required set-up is being handled (room configuration, equipment), arranging for amenities (e.g., refreshments), attendee registration, etc.
G. Status Monitoring and Reporting	A basic responsibility of the RRC Manager will be to track overall activity and progress during RRC development and during operational Phases. This implies a formal reporting process based on requirements established by the host organization and the IGC-EC.

5. IMPLEMENTATION STEPS, TIMING, AND COST PROJECTIONS

Phase 1: RRC Preparation/Organization (6 months from decision to begin RRC formation)

Includes identifying and establishing the organizational and physical home for RRC operations and associated agreements, appointment of the "steering committee", designation of initial management and staff, investigating and securing initial funding. Promotion and news about the RRC is distributed to potential participants in the region and work begins to "register" regional members. **RRC creation should be accompanied by some formal instrument (resolution by IGC?) and a policy/by-law document—common to all RRCs. Any ideas?

Phase 2: RRC Start-up and Initial Operations (12 months)

Initial facilities are set-up and work proceeds to develop and deploy initial high-priority services and programs—all of those assigned a Priority of "5" (see Table 2) and selected ones with a Priority of "4". Promotion work and "registering" regional members continues. Identifying and enlisting associates is carried out. Additional funding sources and project opportunities are explored and secured. The RRC plays an active role in TIM initiatives. Procedures and templates for adherence to Core Management Practices (see Table x) are put in place.

Phase 3: RRC Enhanced Service Deployment (12 months)

Additional services and programs are developed and deployed. This includes all of those assigned a Priority of "4" and "5" (see Table 2) and selected ones with a lower priority. Work continues on recruiting additional members and associates and in exploring additional funding sources and project opportunities. Staff and facilities devoted to the RRC are expanded as funding allows.

Phase 4: Mature RRC Operations (Future after Phase 3)

Phase 4 defines a state in which all higher priority programs and services are in place and new services or projects are initiated as user demand dictates. The management structure and management processes are well and are improved or augmented as necessary. Sources of funding and in-kind support are in place but work for identification and securing of new sources is ongoing. General promotion and member recruitment continues at a high level.

5.1 Implementation Steps and Timing

Table 5: Implementation Tasks and Timing for the [*Eastern/Southeast*] RRC

Task Number and Name	Explanation	Phase	Dependencies/Linkages
1. Organizational Set-up			
1.1 IGC Executive Committee Adopts RRC Business Plan	A final draft of the RRC Business Plan should be submitted to the IGC Executive Committee for review and possible revision. A Final Plan will then be prepared followed by formal approval by the Executive Committee. **Is approval by ITRMC needed?	1	• Must be timed with a schedule meeting of the IGC-EC
1.2 Form RRC Steering Committee	Soon after formal business plan adoption, the RRC Steering Committee should be established and its members assigned. Specific duties of the Steering Committee will be defined (see ***) and a maximum number of members and their terms of service will be established	1	Steering Committee will initially participate in drafting of charter or by-laws and all other RRC start-up activities.
1.3 Identify and Get Commitment from Host Organization(s)	Based on options examined during the business planning process, a host organization will be identified and discussion of terms for RRC support will begin. For the [Eastern/Southeast] RRC **add specifics for the RRC	1	
1.4 Prepare and Ratify Agreement with Host Organization	Based on the groundwork from Task 1.2, a formal agreement will be prepared and ratified by appropriate parties with overall authority. The agreement will include all terms governing the agreement.	1	• Follows formal commitment in Task 1.3 • The host agency takes a lead role to define terms for assuming the host role
1.5 Identify Services and Programs for Phase 2 Implementation	Services and programs for initial deployment will be identified. For the [Eastern/Southeast] RRC, these include: a) xxxx, b) xxxx, c) xxxx	1	• Phase 2 services and programs will be selected ones with a priority of 5 or 4
1.6 Prepare Template By-Laws or Charter	With leadership by the IGO and IGC Executive Committee and template document will be prepared. After adequate review and revision, this template will be approved as the basis for By-Laws or Charter for the Eastern/Southeast] RRC. It is not essential that a Charter or By-Laws be prepared in Phase 1 since a ratified business plan will serve as a guiding document for Phase 2 operations. During Phase 2, a formal Charter or By-laws should be prepared using content from the business plan and additional terms that describe RRC organizational structure, roles, and operations.	1, 2	
1.7 Prepare and Ratify By-Laws or Charter for Eastern/Southeast RRC	The substance of the terms included in the approved template (1.x) will remain but revisions and references to organizations or circumstances in the Eastern/Southeast] region will be made. This will be approved by the IGC-Executive Committee and **need to discuss other signatory parties.	1, 2	• Follows preparation of template in Task 1.6 • Requires clear definition of signatory parties
1.8 Dissolve Regional User Group and Notification to Constituents	At a point at which the RRC has assumed activities and programs provided in the past by existing regional GIS user groups, the EIRGIS/SEIGUG will be formally dissolved. Specific actions to document this dissolution include **what actions? In addition, notification to EIRGIS/SEIGUG members and interested parties will be provided.	1, 2	• Action taken after full agreement of EIRGIS/SEIGUG leadership in communication with members
1.9 Assign RRC Manager	As early as possible after business plan approval, an individual should be assigned as	1	• The RRC manager role is assigned to an

Comment [plc6]: Need to explore and identify type of agreement, terms, and signatory parties

	RRC manager. As described in xxxxx, this will be a part-time role, assigned to an individual whose current position is compatible with the RRC mission and identified services and programs.		existing employee of the host organization
1.10 Assign initial RRC Technical and Support Staff	For the Eastern/Southeast] RRC, the following technical and support staff (not full-time roles) are recommended for initial operations in Phase 2: a) Web-based development for design and development of Web services, b) expert in GIS database design and development, c) administrative support to assist in user communications, promotion, member recruitment.	1, 2	Staff are assigned after an RRC Manager has been assigned
1.11 Prepare detailed budget and resources needs for Phase 2	Based on planned programs and services for Phase 2 and information about the availability of funds and non-monetary resources, a budget will be prepared to cover RRC development and operational costs for Phase 2. The format and timing for budget preparation and approval will follow applicable budgeting rules of the host organization. **what current annual budget cycles does this need to adhere to?	1	• Budget requests must follow format and required timing of host organization
1.12 Prepare detailed budget and resources needs for subsequent phases	As in Task 1.11, budgets for future phases will be prepared, on an annual basis,	2, 3, 4	• Budget requests must follow format and required timing of host organization
1.13 Create templates, tools, and standard operating procedures (SOP) for core management practices	RRC core management practices are described in Table 4. Templates and tools will be prepared as Microsoft Word documents or Excel spreadsheets. SOPs are concisely written and serve to clarify actions to be taken by RRC personnel for routine operational tasks. The majority of these templates, tools, and SOPs should be prepared in Phase 1 and modified as necessary in subsequent phases. New ones will be created, as needed in Phases 2, 3, and 4.	1, 2	• Templates and tools (forms, report formats) may already exist in host organization
2. Funding and Resource Allocation			
2.1 Identify and Secure Initial Funding and Resources for Phase 2	This task includes the identification and formal allocation of funding and non-monetary resources for initial RRC operations in Phase 2. For the Eastern/Southeast] RRC the following sources have been identified as the most likely***.	1	
2.2 Put in Place Structure and Process for Membership Fee	Organizations and individuals in the region that register as RRC members will be obligated to pay an annual membership fee in exchange for basic services provided by the RRC. The amount of the fee will need to be decided and provisions for a tiered fee structure should be defined. This may include different fee amounts for individuals vs. organizations or different amounts set by type of size of organization. In addition, the RRC will decide whether to waive fees for an initial period (e.g., first year of RRC development) and institute the fee at a point when a basic set of services is in place.	1, 2	• Impacts recruitment activities (Task 6.4 and 6.5)
2.3 Establish Administrative Structure for Managing Funding	All internal accounting, monitoring, and reporting procedures and tools need to be created and put in place to support the efficient management of funds--adhering to the policies of the host organization and any external funding sources. This includes preparation of template reports, spreadsheets, and other specific financial management processes. **More about specifics for the [Eastern/Southeast] RRC	1, 2	

2.4 Support Approval of State Budget Request for GIS	Provide any needed information or tangible support for the approval of funding for the state's TIM program and an allocation for RRC development. This may include providing "testimonial stories" on GIS benefits in the region, endorsements from senior officials in the region, or other forms of support.	1	• xxxxx • Xxx • xxx
2.5 Solicit Sponsorships and In-kind donations	A sponsorship program will be put in place for donations of monetary or non-monetary contributions from organizations inside or outside the region. A sponsorship program would be principally aimed and private companies and non-governmental organizations. Sponsorship program development would include: a) identification of potential donors, b) promotional information describing the program and sponsorship levels, c) a management and accounting process that allows for the acceptance of donations, d) active solicitation of sponsors.	All	
2.6 Establish Grant Research and Writing Function	Put in place a process and assigned personnel for the research, identification, and preparation of grant applications which may support RRC activities. Grants programs may be administered by Federal or State agencies, or non-governmental organizations. In some cases, the RRC may play a lead role in grant application (often assembling a proposed team for resulting work) or it may be a party to a grant project lead by another organization. Establishing an effective grant research and application program requires coordination with individuals already involved in this work. **say more about this for each RRC region—opportunities to use services of university grant people and State Econ Dev personnel.	1, 2	• Should be coordinated with existing resources devoted to grant research and application • Basis for on-going work for grant applications and awards as described in Task 3.9
2.7 Ongoing Work in Identifying and Securing Future Funding and Resources	Research and securing of funding and non-monetary resources to support the RRC will be an on-going activity and a principal role of the RRC manager.	2, 3, 4	
2.8 Establish volunteer program and solicit volunteer staff	In addition to paid staff resources, RRC programs and services will always require volunteered time from RRC users (see 3.3.4). In order to make the best use of volunteer time, a structure should be established for soliciting volunteers and assigning them to specific tasks that match their skills and time availability. Setting up the program includes creating a "Call for Volunteers" Web page with information about RRC projects and activities that need volunteer support, the type of work and skill requirements, and an easy way for potential volunteers to sign-up and begin contributing.	1, 2	
2.9 Establish Student Intern Program	The RRC Manager will position the RRC to take advantage of available student intern or co-op programs and, as necessary, establish new relationships with colleges and universities with GIS programs. **need to get more specifics regarding existing intern programs at ISU, University Place, UofI, and other state institutions or private colleges and universities.	1, 2	
3. Design and Establishment of Phase 2 RRC Programs and Services A description of the programs and services is provided in Table 1 and Table 2. This set of tasks specifically refers to design, development, set-up, and deployment of RRC programs and services. Establishment of each RRC service or program will be handled as individual projects each of which follows a logical development process with the following steps: 1) define requirements, 2) prepare conceptual design, 3) assign project team, 4) detailed design, 5)			

develop, test, review prototype(s), 6) Revise based on prototype testing, 7) Prepare documentation, 8)Deploy in operational setting. The time and resources required to reach operational status will depend on the complexity of the service or program. It is expected that the lower complexity services (e.g., Web-based contact directory) can be defined and put in place relative quickly and use minimal resources. As noted below, some programs and services developed for deployment in Phase 2 will be augmented and enhanced in subsequent Phases.			
3.1 Directory of GIS Contacts and Professional Networking Support (A)	This service should be developed on a statewide basis with as a fundamental part of the TIM Program. The IGO should take a lead role in organizing development and work should be assigned to a new Technical Working Group with active participation by the [Eastern/Southeast] RRC and other RRCs. A server for deployment of this application should be designated. The service should include a flexible way for organizations and individuals to edit and enter new contact information. In subsequent Phases, contact data is continually updated and enhancements to the Web-based application are made as needed.	1, 2	• This service is addressed by Implementation Initiatives E4 and E7 in the *Idaho SDI Business Plan* (2/2009)
3.2 GIS News of Regional Importance (B)	This service should be developed on a statewide basis with as a fundamental part of the TIM Program. This service is partially in place through the current "Geotech" listserv but there are other Web service approaches for enabling access and distribution of applicable new items. A work team should be assembled to examine needs for GIS news and to design an improved approach for enhancement. The RRC or the IGC may take the lead role in design and development. A server for deployment of this application should be designated. The service should include a flexible way for organizations and individuals to post new items. In subsequent Phases, news data is continually updated and enhancements to the Web-based application are made as needed.	1, 2	• Application should be developed once and maintained on a single server with access by all RRCs • Requires regular updates by RRC participants and other members of the Idaho GIS community
3.3 GIS Project/Best Practices Catalog (D)	This service should be developed on a statewide basis with as a fundamental part of the TIM Program. The IGO should take a lead role in organizing development and work should be assigned to a new Technical Working Group with active participation by the [Eastern/Southeast] RRC and other RRCs. A server for deployment of this application should be designated. The service should include a flexible way for entry and update of new best practices or project examples. In subsequent Phases, news data is continually updated and enhancements to the Web-based application are made as needed.	1, 2	• Application should be developed once and maintained on a single server with access by all RRCs • Requires regular updates by RRC participants and other members of the Idaho GIS community
3.4 Support Advocacy and Building Awareness of GIS Benefits (E)	This is an ongoing role of the RRC and its members in coordination with outreach activities of the IGO and IGC. It begins in Phase 2 and continues in subsequent phases. The requirements definition and design steps for this program includes identifying audiences and the design of materials for promotion of GIS benefits. Implementation means the creation of promotional materials, presentations, and identifying venues for building GIS awareness. Additional advocacy activities by the RRC will be deployed in Phase 3.	1, 2	• This is addressed by Implementation Initiative F1 in the *Idaho SDI Business Plan* (2/2009)
3.5 Put in place Regional Framework Steward Role (F)	The specific functions and responsibilities of the Regional Steward Role will be documented on implemented individually for each Framework Theme or Element. It will be implemented only for those Themes and Elements in which RRC members are key Source Stewards	1, 2	• Requires the approval of data standards (by the IGC-EC and the preparation of a Stewardship Plan • Based on tight coordination with Source Stewards, Framework Coordinator (IGO),

			and Framework Steward • This is addressed by Implementation Initiatives D4 and D6 in the *Idaho SDI Business Plan* (2/2009)
3.6 Support/ Encourage Adoption of TIM Standards and Policies (I)	The RRC supports with the work of the IGO and IGC in preparation and communication about adopted standards. RRC members familiar with TIM standards will provide mentoring and support to other RRC members. This is an ongoing activity that begins in Phase 2 but continues in subsequent Phases (as new standards and policies are adopted).	1, 2	• Requires coordination with IGO and IGC on standards development and approval • This is addressed by Implementation Initiative S2 in the *Idaho SDI Business Plan* (2/2009)
3.7 Organize/Host GIS Meetings and Events (J)	Specific meetings and events will be identified during Phase 2 and subsequent phases. Initial preparation steps for this service in Phase 1 and 2 involve the identification of potential meeting facilities, equipment/system availability, and information for required reservation of facilities for an upcoming event. In addition, a process for making and responding to requests for use of meeting facilities must be documented.	2	• Dependent on availability of space and facilities of the host organization or other organizations • Supports Service M (Training and Education)
3.8 Coordinate and Promote GIS Training and Education (M)	This involves effective communication with training providers and identification of training opportunities available to RRC users. Information about training is distributed to RRC users (See Service B). This service is initially deployed in Phase 2 but continues in subsequent phases.	2	• Requires coordination and communication with training providers • This service is addressed by Implementation Initiatives E6, E7, and E8 in the *Idaho SDI Business Plan* (2/2009) • Communication about training opportunities involves Service J (Organize Meetings and Events) • Support in providing training services involves Service J (Organize Meetings and Events)
3.9 Grant Research Application Preparation, and Administration (O)	As described in 2.6, the RRC will put in place a process and function for grant research and grant applications—with the understanding that grants will be an important funding source. The RRC will identify potential grants and either take the lead role in grant application or work with RRC members in grant application. This work will culminate in grant awards and putting in place a grant project management structure.	2	• Uses procedures established in Task 2.6
4. Design and Establishment of Phase 3 RRC Programs and Services A description of the programs and services is provided in Table 1 and Table 2. This set of tasks specifically refers to design, development, set-up, and deployment of RRC programs and services. Establishment of each RRC service or program will be handled as individual projects each of which follows a logical development process with the following steps: 1) define requirements, 2) prepare conceptual design, 3) assign project team, 4) detailed design, 5) develop, test, review prototype(s), 6) Revise based on prototype testing, 7) Prepare documentation, 8)Deploy in operational setting. The time and resources required to reach operational status will depend on the complexity of the service or program. It is expected that the lower complexity services (e.g., Web-based contact directory) can be defined and put in place relative quickly and use minimal resources. As noted below, some programs and services developed			

for deployment in Phase 3 will be augmented and enhanced in Phase 4.			
4.1 Support Advocacy and Building Awareness of GIS Benefits (E)	This activity begins in Phase 2 and is expanded and enhanced, as necessary in Phase 3.	2, 3	• Builds on work from Task 3.4 carried out in Phase 2 • Xxx • xxx
4.2 Put in place Regional Framework Steward Role (F)	This activity begins in Phase 2 and continues in subsequent phases. In Phase 3, Framework Steward activities may be initiated for additional Framework Themes or Elements which were not implemented in Phase 2.	2, 3	• Builds on stewardship roles established in Phase 2 (see 3.5) • Requires the approval of data standards (by the IGC-EC and the preparation of a Stewardship Plan • Based on tight coordination with Source Stewards, Framework Coordinator (IGO), and Framework Steward • This is addressed by Implementation Initiatives D4 and D6 in the *Idaho SDI Business Plan* (2/2009)
4.3 GIS Data/Metadata Compilation and Update (G)	RRC involvement in actual data collection and compilation will occur on a selective basis when the RRC role is the most effective approach for GIS database development. This may be the case for special projects, compilation of non-Framework data, or support in database development for smaller jurisdictions without the resources in place to carry out the work. The options remain for the RRC to use its staff for database work or to enter into project partnerships with private sector companies.	3	• Makes use of standards adopted in Task 3.6
4.4 Organize/Host GIS Meetings and Events (J)	Ongoing work that continues from Phase 2.	3	• Continuation of work started in Phase 2 (see 3.7) • Dependent on availability of space and facilities of the host organization or other organizations • Supports Service M (Training and Education) • xxx
4.5 Prepare Project Specifications and Support GIS Services Procurement (K)	This work (which may start in Phase 2) will culminate in the preparation of template materials that may be used, with modification, for an actual procurement by an RRC member or by the RRC itself representing one or more RRC members. The objective is to create multiple template documents for different types of projects (e.g., field data collection, map conversion, orthoimagery, application development services) to speed up the procurement process. Ideally, these template documents will use a notation scheme that guides users to make required inserts and modifications for producing a technical specification and/or procurement document (e.g., RFP). In most cases this service will be	2,3	• This is addressed by Implementation Initiative L5 in the *Idaho SDI Business Plan* (2/2009) • Procurement templates must take into account procurement rules of specific RRC member organizations

	provided for a fee (from RRC members or users that are undertaking a new project).		
4.6 Joint Project Negotiation and Management Support (L)	Preparation for this service would include the development of project planning and management procedures and templates and identification of personnel who could support this process on behalf of the RRC. This service will be initially offered in Phase 3 and will continue in Phase 4. In most cases this service will be provided for a fee (from RRC members or users that are undertaking a new project).	2, 3	• Service would be provided at the request of an RRC member of group of members • This is addressed by Implementation Initiatives O2 and O3 in the *Idaho SDI Business Plan* (2/2009)
4.7 Provide GIS Training and Education (M)	Training or educational sessions are planned, development, and provided by the RRC only in cases where user demand is high and where there is no other, easily accessible source for the training. Ongoing work in coordination and support for training opportunities continues in this Phase (see 3.8).	3	• Requires coordination and communication with training providers • This service is addressed by Implementation Initiatives E6, E7, and E8 in the *Idaho SDI Business Plan* (2/2009) • Communication about training opportunities involves Service J (Organize Meetings and Events) • Support in providing training services involves Service J (Organize Meetings and Events)
4.8 Hosting GIS Data and Services (P)	As described in xxxxxxxx, the RRC may, on a selective basis, host data or applications needed by RRC members if the service is not readily available from another source. In addition, the RRC may serve as a "broker" to identify and enlist a hosting service from another party (private firm, university, government agency). Preparation for this service includes the development of terms for a hosting agreement and identification of the server, software, and network resources and the programming work to implement the host applications. This service may be provided in Phase 3 and would continue in Phase 4.	3	• Should not create competitive conflicts with private sector
4.9 GIS Applications and Web Services/Facilitate Technology Transfer (Q)	This Phase 3 service involves facilitation and mutual support among RRC members to identify existing, successful applications and Web services deployed by an RRC member (or and organization outside the Region) and to provide support in implementing the application in another organization which can benefit from it. This does not include a "ground-up" application design and development effort, just coordination and facilitation. This "technology transfer" role is in place in Phase 3 and continues in Phase 4.	3	

5. Design and Establishment of Future (Phase 4) RRC Programs and Services

A description of the programs and services is provided in Table 1 and Table 2. This set of tasks specifically refers to design, development, set-up, and deployment of RRC programs and services. Establishment of each RRC service or program will be handled as individual projects each of which follows a logical development process with the following steps: 1) define requirements, 2) prepare conceptual design, 3) assign project team, 4) detailed design, 5) develop, test, review prototype(s), 6) Revise based on prototype testing, 7) Prepare documentation, 8)Deploy in operational setting. The time and resources required to reach operational status will depend on the complexity of the service or program. It is expected that the lower complexity services (e.g., Web-based contact directory) can be defined and put in place relative quickly and use minimal resources. A description of the programs and services is provided in Table 1 and Table 2. Some of these programs and services were initially developed and deployed in previous phases but are continued in Phase 4 with appropriate expansion or enhancement. NOTE: Some of these programs and services were initially developed and deployed in previous phases but are

continued in Phase 4 with appropriate expansion or enhancement.			
5.1 GIS Professional Labor Pool Management (C)	This is a low priority service that may or may not be implemented. The requirements definition and design stage would include an identification of the level of need, legal/policy impacts, and design of accounting mechanisms to support it. This would be followed by a Web-based service through which organizations could offer staff and request staff services from another organization.	3, 4	• Should be integrated with the Contact Directory (Service A) • Government procurement or accounting procedures may present obstacles • Potential competitive conflicts with the private sector need to be avoided.
5.2 Put in place Regional Framework Steward Role (F)	S This activity begins in Phase 2 and continues in subsequent phases. In Phase 4, Framework Steward activities may be initiated for additional Framework Themes or Elements which were not implemented in Phase 2 or 3.	3, 4	• Builds on stewardship activities put in place in Phases 2 and 3 (see Tasks 3.5 and 4.2) • Requires the approval of data standards (by the IGC-EC and the preparation of a Stewardship Plan • Based on tight coordination with Source Stewards, Framework Coordinator (IGO), and Framework Steward • This is addressed by Implementation Initiatives D4 and D6 in the *Idaho SDI Business Plan* (2/2009)
5.3 GIS Data/Metadata Compilation and Update (G)	This service is initially put in place in Phase 3 but continues in Phase 4. Decisions for RRC involvement in data or metadata collection and compilation are made on a case-by-case basis and will be undertaken for special projects, non-Framework data, and support to smaller jurisdictions.	3, 4	• Follows database development work in Phase 3 (see Task 4.3)Makes use of standards adopted in Task 3.6
5.4 Prepare Project Specifications and Support GIS Services Procurement (K)	This work (which may start in Phase 2) will culminate in the preparation of template materials that may be used, with modification, for an actual procurement by an RRC member or by the RRC itself representing one or more RRC members. The objective is to create multiple template documents for different types of projects (e.g., field data collection, map conversion, orthoimagery, application development services) to speed up the procurement process. Ideally, these template documents will use a notation scheme that guides users to make required inserts and modifications for producing a technical specification and/or procurement document (e.g., RFP). In most cases this service will be provided for a fee (from RRC members or users that are undertaking a new project).	3, 4	
5.5 Provide GIS Training and Education (M)	Training or educational sessions are planned, development, and provided by the RRC only in cases where user demand is high and where there is no other, easily accessible source for the training.	3, 4	
5.6 Hosting GIS Data and Services (P)	See xxxxx. As appropriate, the RRC implements or works with another party (private firm, public agency) to set-up new hosted services (not implemented in Phase 3).	3, 4	• Should not create competitive conflicts with private sector • Assumes the availability of system resources and personnel to deploy and

			manage the hosting • xxx
5.7 GIS Applications and Web Services: RRC Carries out Design and Development (Q)	As opposed to the facilitation and technology transfer role implemented in Phase 3, this Phase 4 service involves actual application design, development, and deployment by RRC personnel or by contractors hired by the RRC.	3, 4	• Should not create competitive conflicts with private sector • Assumes the availability of RRC personnel with necessary design and development skills
6. Promotion, Recruitment, and External Relations			
6.1 Design and Set-up Initial RRC Web Page	An initial RRC Home page will be established on a designated server. In Phase 1, this will just provide basic functionality (background information, promotional material, member sign-up). In later Phases, this Web page will be the portal to on-line services provided by the RRC. It would be most effective for multiple RRCs to jointly development the Web page and ideally deploy Web pages for multiple RRCs on a common server.	1, 2	• Requires server and software for development • Will benefit from joint development by multiple RRCs
6.2 Prepare Promotional Materials	Includes the development of an RRC brochure that explains the RRC concept, the launching of the [Eastern/Southeast] RRC, intended services and benefits, and contact information. The main audience is potential RRC members, associates, and users outside of the region. Recommended design would be a two-sided letter size sheet or tri-fold in 3 or 4 colors. It should be designed so it can be distributed in hard copy and digital form.	1, 2	• Should be designed so it can be used, with modification, by multiple RRCs • This is addressed by Implementation Initiative E1 in the *Idaho SDI Business Plan* (2/2009)
6.3 Carry Out Active Promotion	Active begins in Phase 1 and continues through subsequent phases. It is a general activity that overlaps with specific recruitment, fundraising, and general promotion of RRC programs and services. RRC staff and members will identify opportunities for promotion including distribution of promotional materials, presentations at GIS-related events, management briefings, and participation in professional associations.	All	• Should be carried out in coordination with other RRCs and the IGO
6.4 Recruit Initial Members	An active recruitment campaign for RRC Members should be launched in Phase 1 and continued in subsequent phases. This recruitment campaign has a major focus on local governments (County, City). A simple registration form will be developed and deployed (ideally Web-based and accessible from the RRC Web Page). A standard member fee needs to be decided prior to active recruitment. The RRC may decide to waive the fee for an initial period of time. For the campaign recruitment goals should stated and membership should be promoted through all available channels—including direct calls to key contact people in potential user organizations.	1, 2	
6.5 Ongoing Recruitment of Members and Associates	Continuation of the recruitment campaign initiated in Phase 1 for all subsequent phases. This includes regular members and RRC Associates (see 2.2). Associates are organizations with which the RRC has a formal agreement for services or mutual support.	2, 3, 4	
6.6 Identify RRC members for Participation in IGC Committees and Working Groups	Members representing different types of organizations (public, non-profit, private) in the RRC region will join the IGC. The RRC will encourage IGC participation and service in the IGC Executive Committee. In addition, the RRC Manager and Steering Committee will help recruit volunteers to actively participate on Working Groups and Committees formed by the IGC-EC. This activity begins in Phase 2 and continues in subsequent phases.	2, 3, 4	• Follows IGC By-Laws • Implementation of RRC program N (Table 1)

6.7 Conduct User Satisfaction/Needs Survey	On a periodic basis (no more frequently than annually), after Phase 2, the RRC Manager should conduct a survey of RRC users to gain input about their experiences in use of RRC services, level of satisfaction with the services, and suggestions for improvement and enhancement. This should be a well-designed Web-based survey with "back end tools" to process and present the results—which should be used to operational planning and improvement of services. To ensure an adequate response, the survey should be well advertised with enough lead time for individuals to respond	3, 4	• Supports periodic program review and audit in Task 7.8
6.8 Process Calls, Requests, and Receive Visitors	This is a core management described in Table 4. With a standard operating procedure (SOP) documented (see Task 1.13) the process should be set-up with duties assigned for handling calls, requests, and visitors.	2, 3, 4	• Follows procedures defined in Task 1.13
6.9 Respond to Requests for RRC Services	The RRC should adopt an efficient customer service approach that focuses on prompt response to requests—whether they be simple questions or more detailed discussion about services or a new project start-up. The SOP developed in Task 1.13 will define an appropriate and workflow. Requests and responses will be documented and used in periodic status reporting.	2, 3, 4	• Follows procedures defined in Task 1.13
7. Ongoing Management	This includes routine RRC operational management activities that will begin in Phase 2 and continue in subsequent phases. Many of the activities here address "core administrative and management practices" described in Table 5.		
7.1 On-going Staff/Personnel Management	This activity encompasses all routine staff management work carried out by the RRC Manager or by staff who are assigned project management roles. This includes new employee orientation, work delegation and oversight, employee evaluation, periodic staff meetings, and disciplinary actions as appropriate	2, 3, 4	• Follows requirements of host organization and SOP developed in Task 1.13
7.2 Monitor RRC Time and Finances	The RRC Manager will be responsible for tabulating, preparing, and reviewing necessary forms required by the host organization and by any external organizations providing funding or in-kind support (e.g., grant administration requirements). This includes employee time and expense reporting, preparation of purchase requests, review and approval of invoices, and other financial tracking and reporting requirements.	2, 3, 4	• Follows requirements of host organization and SOP developed in Task 1.13 • Includes monitoring of budgets created in Tasks 1.11 and 1.12
7.3 Monitor RRC Activities and Service Delivery	This includes all routine monitoring of RRC activities and services. It includes the capture of basic metrics (e.g., members recruited, number of requests for service, project reports, special events managed, fundraising results, etc.).	2, 3, 4	• Uses information from satisfaction survey (Task 6.7)
7.4 Prepare Detailed Management Reports	Periodic reports aimed at management personnel from the host organization, the IGO, and management in other organizations providing significant funding and support should be prepared on a regular basis (e.g., monthly or quarterly depending on the requirements of the recipient parties). This reporting will use template documents prepared during RRC set-up.	2, 3, 4	• Uses templates created in Task 1.13
7.5 Prepare Quarterly Status Report	Using a reporting template, quarterly reports, aimed at management personnel, are brief summaries of accomplishments during the reporting period, major problems or obstacles, and key activities and planned events for the upcoming quarter. These reports are distributed in digital form and used, as required, for management briefings (e.g., presentations to IGC Executive Committee).	2, 3, 4	• Report template created in Task 1.13

7.6 Schedule and Handle Logistics for RRC Events	RRC staff or volunteers will handle scheduling and arrangement of facilities for meetings and events sponsored or supported by the RRC. This is one of the core administrative functions described in Table 4.	2, 3, 4	• Supports a variety of RRC programs and services (see Table 1).
7.7 Set-up Management Structure for New Projects	The RRC will be positioned to assume a role in the planning and management of GIS projects on behalf of RRC members (see description of Services F, G, K, L, P, and Q). Initiating work under these service categories will require setting up a project management structure consisting of a work plan, schedule, budget, definition of deliverables, project manager and team, project communications and monitoring, and reporting.	2, 3, 4	• Project planning and management principles from the Project Management Institute (PMI) should be followed
7.8 Periodic Review and Audit of RRC Operations	Effective RRC management calls for period reviews or "program audits" carried out to provide a comprehensive picture of program status, quality of service, accomplishments, and problems or obstacles encountered. Carrying out a review on an annual basis provides information useful in planning for future operations and improving services to users.	2, 3, 4	• Uses detailed management reports (Task 7.4), quarterly reports (Task 7.5), and information from user satisfaction surveys (Task 6.7)

5.2 Implementation Responsibilities

Table 6 identifies specific offices or groups that have responsibility for Structures stewardship activities. Three role/responsibility categories are identified:

Lead Role (L): Overall responsibility for accomplishing or carrying out the activity including detailed work planning, assembling and overseeing work teams, work monitoring and quality checks, etc.

Participant/Support (P): Any involvement in carrying out the activity, providing technical or management assistance, or system resources to support the work

Oversight/Approval (O): Designated role in oversight and formal approval for Stewardship activities.

Table 6: Responsibilities for Structures Stewardship Development and Operation

Comment [plc7]: Will be completed in next draft

	Responsibilities (L=Lead Role, P=Participant/Support, O=Oversight/Approval)											
RRC Development Task	Idaho Geospatial Council and Executive Committee	IGO-GIO	IGC Committees /Working Groups	Regional User Group Leaders	Host Organization Management	RRC Manager	RRC Staff and Volunteers	RRC Members and Users	RRC Service Providers and Associates	RRC Steering Committee		Organizations Providing Funding or In-kind Support
1. ORGANIZATIONAL SET-UP												
1.1 IGC Executive Committee Adopts RRC Business Plan												
1.2 Form RRC Steering Committee												
1.3 Identify and Get Commitment from Host Organization(s)												
1.4 Prepare and Ratify Agreement with Host Organization												
1.5 Identify Services and Programs for Phase 2 Implementation												
1.6 Prepare Template By-Laws or Charter												
1.7 Prepare and Ratify By-Laws or Charter for Eastern/Southeast RRC												
1.8 Dissolve Regional User Group and Notification to Constituents												
1.9 Assign RRC Manager												
1.10 Assign initial RRC Technical and Support Staff												
1.11 Prepare detailed budget and resources needs for Phase 2												
1.12 Prepare detailed budget and resources needs for subsequent phases												
1.13 Create templates, tools, and standard operating procedures (SOP) for core management practices												

2. FUNDING AND RESOURCE ALLOCATION												
2.1 Identify and Secure Initial Funding and Resources for Phase 2												
2.2 Put in Place Structure and Process for Membership Fee												
2.3 Establish Administrative Structure for Managing Funding												
2.4 Support Approval of State Budget Request for GIS												
2.5 Solicit Sponsorships and In-kind donations												
2.6 Establish Grant Research and Writing Function												
2.7 Ongoing Work in Identifying and Securing Future Funding and Resources												
2.8 Establish volunteer program and solicit volunteer staff												
2.9 Establish Student Intern Program												
3. DESIGN AND ESTABLISHMENT OF PHASE 2 PROGRAMS AND SERVICES												
3.1 Directory of GIS Contacts and Professional Networking Support (A)												
3.2 GIS News of Regional Importance (B)												
3.3 GIS Project/Best Practices Catalog (D)												
3.4 Support Advocacy and Building Awareness of GIS Benefits (E)												
3.5 Put in place Regional Framework Steward Role (F)												
3.6 Support/ Encourage Adoption of TIM Standards and Policies (I)												
3.7 Organize/Host GIS Meetings and Events (J)												
3.8 Coordinate and Promote GIS Training and Education (M)												
3.10 Grant Research Application Preparation, and Administration (O)												
4. DESIGN AND ESTABLISHMENT OF PHASE 3 PROGRAMS AND SERVICES												
4.1 Support Advocacy and Building Awareness of GIS Benefits (E)												
4.2 Put in place Regional Framework Steward Role (F)												
4.3 GIS Data/Metadata Compilation and Update (G)												
4.4 Organize/Host GIS Meetings and Events (J)												
4.5 Prepare Project Specifications and Support GIS Services Procurement (K)												
4.6 Joint Project Negotiation and Management Support (L)												
4.7 Provide GIS Training and Education (M)												
4.8 Hosting GIS Data and Services (P)												
4.9 GIS Applications and Web Services: Facilitate Technology Transfer (Q)												
5. DESIGN AND ESTABLISHMENT OF PHASE 4 PROGRAMS AND SERVICES												
5.1 GIS Professional Labor Pool Management												

(C)												
5.2 Put in place Regional Framework Steward Role (F)												
5.3 GIS Data/Metadata Compilation and Update (G)												
5.4 Prepare Project Specifications and Support GIS Services Procurement (K)												
5.5 Provide GIS Training and Education (M)												
5.6 Hosting GIS Data and Services (P)												
5.7 GIS Applications and Web Services: RRC Carries out Design and Development (Q)												
6. PROMOTION, RECRUITMENT, EXTERNAL RELATIONS												
6.1 Design and Set-up Initial RRC Web Page												
6.2 Prepare Promotional Materials												
6.3 Carry Out Active Promotion												
6.4 Recruit Initial Members												
6.5 Ongoing Recruitment of Members and Associates												
6.6 Identify RRC members for Participation in IGC Committees and Working Groups												
6.7 Conduct User Satisfaction/Needs Survey												
6.8 Process Calls, Requests, and Receive Visitors												
6.9 Respond to Requests for RRC Services												
7. ONGOING RRC MANAGEMENT												
7.1 On-going Staff/Personnel Management												
7.2 Monitor RRC Time and Finances												
7.3 Monitor RRC Activities and Service Delivery												
7.4 Prepare Detailed Management Reports												
7.5 Prepare Quarterly Status Report												
7.6 Schedule and Handle Logistics for RRC Events												
7.7 Set-up Management Structure for New Projects												
7.8 Periodic Review and Audit of RRC Operations												

5.3 Cost Projections for Development and Operational Budget

6. FINANCING STRATEGIES AND RRC PROMOTION

6.1 Potential Funding Sources and In-kind Contributions

Requirements for funding or non-monetary in-kind contributions (staff time, special services, equipment, software)

**We need to get ideas and additional suggestions for funding sources

Table 3: Possible Sources for Funding and In-Kind Contributions

Funding/ Contribution or Source	Description
Standard Fees from RRC members	Standard membership fee from RRC member individuals and organizations. This would be an annual fee would be required for membership (and therefore for receiving basic RRC services) **Standard fees must be low enough that members will be able to justify this monetary contribution. There must be a perception that a benefit is derived from RRC membership and participation. There is a possibility of adjusting the level of fees by jurisdiction or organization size.
In-kind support from parent/host organization	Non-monetary contributions from an outside source including donated staff time, office space, facilities, computer systems, equipment, etc. already in place by the organization hosting the RRC. **It is recognized that parent or host organizations will have limitations on the level of in-kind contributions that can be provided and that the capacity to provide in-kind support will vary among the different regions and host organizations. It is expected that such in-kind contributions will be more important in early RRC phases and there is a goal to find revenue to reimburse host organizations for facilities
Existing student intern and co-op programs (with existing funds)	Use capacity (student labor) that may be available from existing, funded, College/University student co-op and intern programs. The RRC can offer a valuable environment and experience for students with necessary skills that labor on a part-time or full-time basis for an internship period. **This source is dependent on finding unused funds, allocated for student interns that could be used by an RRC at no or low cost. Is this enough of a possibility to pursue?
Volunteer time from participating organizations	It is expected that RRC member and associate organizations will be able to justify allocation of time from their staffs to contribute time and expertise on RRC programs and projects that have a benefit for all member organizations. To fully leverage this in-kind source, the RRC must sustain and active recruitment process and provide information on projects and tasks which need support. Volunteer recruitment for RRC projects must be coordinated with participation in committees and working groups formed by the IGC Executive Committee. Contributions of time will always be on a volunteer basis.
TIM Budget Request for FY2012 (if appropriated)	The IGO plans to submit an executive budget request for TIM program activities which includes and allocation of funding for RRCs (for Fiscal Year 2012). **This is considered to important source of funding but at this point, there is no certainty that funding will be approved (for FY 2012 or later years).
Grants	Grant funding covers a full range of funding available through grant programs sponsored by state and federal agencies, non-profit/non-governmental organizations or foundation, and private sources. The Idaho GIS community has been successful in receiving and making effective use of federal funding (specifically the FGDC Cap grant program) for GIS related work. There will be continued grant funding opportunities in 2011 from the CAP program and other sources (DHS, IECC) that specifically target GIS development. But there are a large range of other grant programs, which may not specifically cite GIS but which have a major geographic component, and which, potentially, could support RRC projects and services. RRCs could play a role in grant application and administration or the RRC could be a partner in a grant application project with another lead organization (RRC member organization). **Project consultants are investigating potential grant sources. Do you have ideas on grant programs that should be explored?

Sponsorship fee from private companies or non-profit organizations	Private companies or non-profit organizations, with an interest in the Idaho GIS community, may be interested in paying sponsorship fees. To leverage this potential source, the RRC would need to establish a formal sponsorship program and solicit contributions. **is this something that should be pursued? Are there any potential "conflict of interest" concerns? What companies should be identified as possible contributors?
In-kind Donations by Public or Private Organizations	This includes non-monetary contributions from an outside source which could include donated staff time, computer systems, equipment, software, data license, training, etc.) In-kind donations may or may not have a requirement for the RRC to meet certain terms for accepting the donation. In-kind donations may be solicited by the RRC and offers are evaluated and accepted on a case-by-case basis. The RRC will not accept any in-kind donations that have terms that conflict with the RRC objectives, charter, or any existing agreements that establish terms for RRC operations.
Special fees for enhanced web GIS hosting and services	The RRC may provide enhanced services (more than basic RC services) for a fee by those member organizations or users that choose to use such services. **There is no strict definition of "enhanced services" but it implies things like data or Web services hosting. This may be most attractive to smaller local government jurisdictions that do not have active GIS programs
Management fee for joint project management	One of the potential RRC services is support in organizing and managing joint projects (e.g., GIS database development project for multiple cities, counties, utility companies, etc.). In this case, project partners would be funding the effort (likely carried out by a private company). A fee, allocated from the project budget, would be allocated to the RRC for its role in any of the following: a) preparation of specifications and RFP, b) managing selection/procurement of services, c) contract negotiation, d) project monitoring and contract management, e) financial management, f) quality assurance. The justification is that economy of scale cost savings for joint projects would be delivered with sound project planning and management
Revenue from Special Projects	This includes any revenue generated from special GIS projects carried out by the RRC. Funding would be provided by any public or private sector organization (in-state or out-of-state). This may be a case in which the RRC leads and carries out the project or just contributes labor, data, or other support to a project managed by another organization **To establish a basis for this revenue source, it would be best to establish a fee schedule, basic terms for providing services, and do promotion to investigate opportunities. Are there any legal or policy concerns?
Fees for data compilation and/or regional Framework stewardship support	Fees would apply for GIS data related work provided by the RRC. This could include data collection or compilation for member organizations (mainly low population local government jurisdictions). In addition, fees from Source Stewards could apply for work carried out by the RRC for assembling, formatting, and submittal of Source Steward Framework data updates—reducing labor required by the original Source Steward. **A potential RRC role as a "Regional Steward" has been noted as a high priority by project participants. Is it reasonable for the RRC to charge fees for this work or is it considered a "basic service" which the RRC should support through other funding sources.
Sale of special GIS products	There is an opportunity for an RRC, or one of its members, to design and create custom products for sale. A "custom product" is considered to be any digital or hardcopy product generated in a "value-added" activity using GIS data and software. This may include custom maps, geographic data extracted and delivered in a non-standard format, etc. **Is this realistic enough to be an opportunity which should be explored in more detail? It would need to be done in a way that does not present unfair competition with the private sector.
Agreement with commercial Web-based	The potential exists, in the future if not at the present time, to negotiate agreements with companies providing Web-based spatial data and services (Microsoft Bing Maps, Google

geospatial services	Earth, and potentially many more that operate on a national or regional basis). There are not currently many precedents for this type of arrangement but as these commercial firms enhance the scope, resolution, and timeliness of data they provide, opportunities may increase. An agreement with commercial service providers would best be organized at the state level (IGO and IGC) but RRCs could participate in providing data and sharing in revenue received.
Recorder fees for special GIS fund	The Idaho SDI Business Plan (2009) identified an action to explore the possibility of establishing a new fee for document recordation (County Recorder) and a special fund from these fees to support GIS development. Several other states have put this type of funding mechanism in place. If this financing strategy was pursued and approved by the State legislature, the IGC and IGO would have a major role in defining terms for use of the funds but it would be acknowledged that are a large portion of the funds would be allocated back to local governments for GIS development and operations. RRCs could play a role in ensuring appropriate disbursement of the funds and supporting local jurisdictions in effective use of the funds.

6.3 Recommended Funding and Financing Strategy

**this will be completed in the next draft

6.4 RRC Promotion and Marketing

**this will be completed in the next draft