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Final report

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Executive Summary

Funding awarded through the CAP were used to 1) develop a Consultant Task Description (CTD), which allowed for engagement of professional consultant to assist in the development of 1) a business plan guideline and 2) a business plan for the East Idaho RRC[1]. These plans addressed the following:

1. The business plan guideline was created to improve development of business plans throughout Idaho and elsewhere.
2. The EIRRC business plans:
    a. Identified partners and resources
    b. Recommended:
        i. a balance of services and capabilities
        ii. an entity, organizational structure, and governance type.
        iii. a physical location and operation strategy
        iv. a communication and coordination approach with Idaho Geospatial Council, The Idaho Map (TIM) activities[2], and interaction with other RRC's.
        v. staffing strategies and technical architecture, as appropriate
    c. Provided a budget plan identifying potential funding sources
    d. Included an implementation plan and proposed timeline with milestones

In addition, EIRRC was officially formed through recognition by the Idaho Geospatial Council. EIRRC management is located at Idaho State University's GIS Training and Research Center.

Project Narrative

Summary of Project Activities

Since the award of the NSDI CAP funding, the investigators have made great progress and have met all proposed deliverables. 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 eight focused RRC meetings each of which were well attended. In addition, RRC's were discussed in detail at the ISDI forum held in Pocatello on June 24th and

[1] During "GIS Week" meetings in Boise Idaho (October, 2010), the eastern Idaho Regional GIS proposed a merger with the Southeast Idaho GIS Users' Group (SEIGUG), resulting in one RRC, henceforth referred to as the East Idaho RRC (EIRRC). This merger was unanimously agreed upon by all parties as it results in a vastly more efficient and effective group.

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

"GIS Week" events in October 2010. During the "GIS Week" meetings in Boise, Idaho, the eastern Idaho Regional GIS proposed a merger with the Southeast Idaho GIS Users' Group (SEIGUG), resulting in one RRC, the East Idaho RRC (EIRRC). This merger was unanimously agreed upon by all parties as it results in a vastly more efficient and effective group.

On February 3rd, 2011, final revisions were made to the EIRRC BP (version 6) and posted on the project's website. This BP was sent to the Idaho Geospatial Council for review and approval.

Key Accomplishments

Three key accomplishments are apparent 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 using *surveymonkey* to help identify the stakeholder community, 3) the business plan was well received by the GIS community and represents a major milestone for RRC's in Idaho, and 4) as a result of efforts in the formation of the EIRRC, the north Idaho RRC has been able to advance very quickly and will likely produce their own business plan sometime in 2011.

Another key accomplishment of this project is its ability to aid other regional resource center become established. Indeed, great efforts were made in the development of a guideline for use by other RRC's in Idaho as well as in other states. To further increase the benefit of this effort we have developed a webpage called My Guide, which can be accessed by visiting http://giscenter.isu.edu/research/Techpg/caprrc/MyGuide/ or by using http://tinyurl.com/RRC-MyGuide.

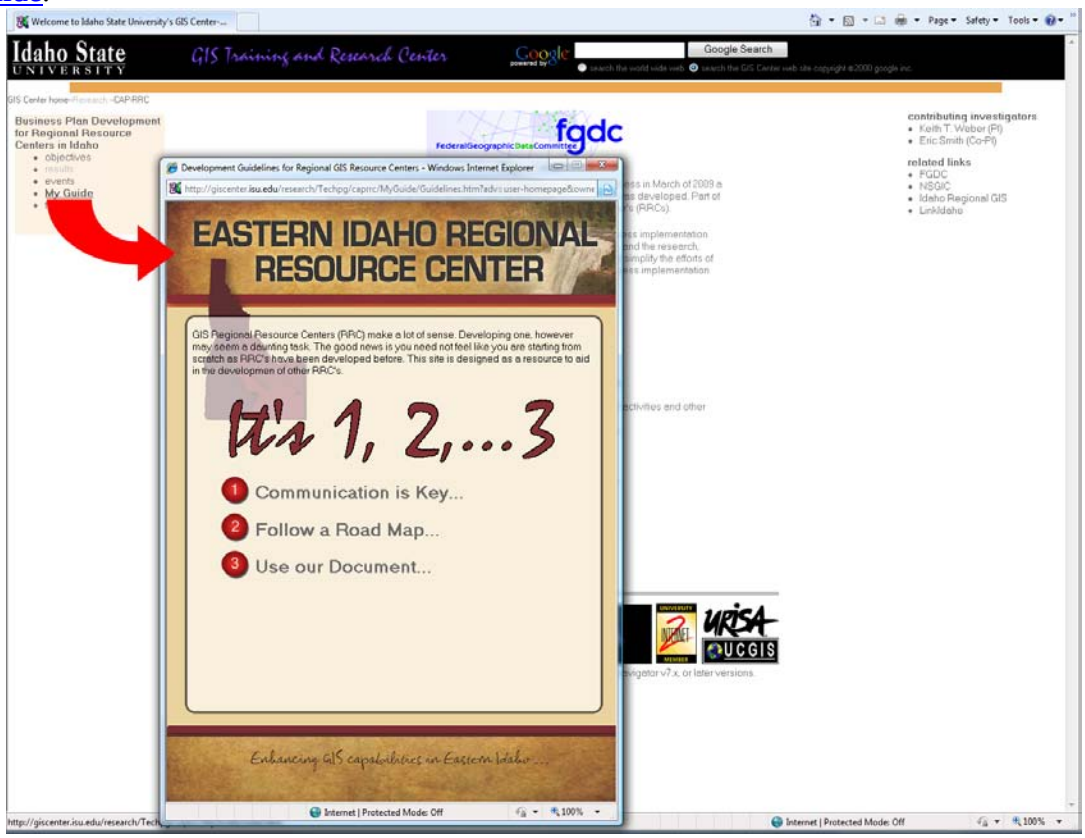

Figure 1. Screen capture of the CAP funded RRC Business plan development website and the "My Guide" tool developed for this project.

Inclusiveness of Efforts

Many efforts have been made to include representation from all stakeholders and stakeholder groups in Idaho. The majority of active participants represented 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 to support the EIRRC.

Evaluation of Practices

Open communication has proven absolutely critical for the development of RRC's and the success of this project. To facilitate this, we have found web-based forums indispensable. 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 investigators and collaborators. Currently, there are 39 members 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 in-person meetings this and other projects like it would surely fail. The meetings present an opportunity to direct focused attention to the development of RRC's and the EIRRC without interruption from other attentions.

Next Steps

The next step of this project is aligned with completing Phase 1 as outlined in the EIRRC BP, that is "Phase 1 work 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 “sign-up” regional members". To date, the organizational and physical home for the EIRRC has been identified (Idaho State University's GIS Training and Research Center) and while a steering committee has not been formed, a steering committee task force has been established whose charge it is to identify the membership of the steering committee. In addition, the EIRRC will be presented at the Intermountain GIS Users' Conference in March 2011.

On February 17th, 2011, PI (Weber), Co-PI (Smith), and Craig Rindlesbacher (Madison county and City of Rexburg GIS Coordinator [part of the EIRRC]) presented the EIRRC BP to the Idaho Geospatial Council (IGC) executive committee. As a result of our work and the presentation made to the council, the EIRRC BP plan was approved by IGC. This accomplishment was an important step and is even more significant for it has been achieved far faster than anticipated. Following this, the steering committee task force will assemble a steering committee for the EIRRC and, concurrent with these efforts, the RRC manager (Keith T. Weber) will seek project funding. At this time, two potential projects appear promising, one funded by the Idaho Transportation Department and another through the DOE Idaho National Laboratory (INL).

In addition to these efforts, the EIRRC is considering the development of a website that deals with the "business" of the RRC and not the business planning project. This may be facilitated through the ISU GIS TReC's website or through another host.

While the EIRRC has been successful in its formulation and business plan development, remaining viable in the future will be challenging. To accomplish this will require at least minimum operation funding (approximately $10-25K annually) to engage the RRC manager and allow for interoperational meetings, teleconferences, and webinars. This will be especially vital within the first year or two of the EIRRC. If funding were available through the USGS and/or FGDC for first year operations of the EIRRC that would be extremely helpful and greatly improve the long-term viability of the EIRRC. In addition, guidance and suggestions are most welcome and we are hopeful that the BP guidelines will be made available through the NSDI/FGDC website.

Timeline

The project has proceeded smoothly and will actually be completed slightly ahead of its original timeline. We do not foresee the need to request a no-cost extension.

Attachments

Completed business plan(s)
link to website: http://giscenter.isu.edu/research/Techpg/caprrc/index.htm

Figure 2. A photograph for an EIRRC planning meeting held as part of the World GIS Day events at ISU. Joining this group was a number of others on teleconference as well.

Feedback on Cooperative Agreements Program

What are the CAP Program strengths and weaknesses?

The CAP program is a strong program that supports local, regional, and state GIS efforts that will ultimately help build the national spatial data infrastructure (NSDI). While the funding is relatively small, great accomplishments have been made. One potential weakness may be the need for matching funds which may preclude some small entities from applying for assistance.

Where does it make a difference?

The CAP program made a difference in Idaho by helping achieve milestones in the state's SDI strategic plan. Without this funding, the development of regional resource centers would be little more than a good idea.

Was the assistance you received sufficient or effective?
Yes, the assistance we have received was sufficient and highly effective. In addition, it was efficiently managed to provide the greatest return on the investment.

What would you recommend that the FGDC do differently?
Perhaps the initial kick-off meeting could be optional offered using teleconferencing or a webinar style of interaction.

Are there factors that are missing or additional needs that should be considered?
Perhaps a program to fund first year operations following successful BP development/implementation could be considered at a level of $10-25K.

Are there program management concerns that need to be addressed, such as the time frame?
The time frame for initial submission of proposals could benefit from having one additional week. As it is, the proposals are due on the week following the Christmas and New Year holidays. Attendance at the kick-off meeting is also difficult as awards are not able to be made quickly. If this meeting were scheduled for the latter part of March, that may help.

If you were to do this again, what would you do differently?
I feel this project was highly successful and helped move Idaho SDI forward. In addition, other regions in the state are now moving quickly to draft their own BP using the guidelines created by this project. If we were to do this again, I seriously do not know how we would do things differently.

FINAL

BUSINESS PLAN FOR GIS REGIONAL RESOURCE CENTER DEVELOPMENT AND OPERATION

East Idaho RRC

Prepared by

Idaho RRC Planning Team*

*Includes representatives of the Idaho State University's GIS Training and Research Center (GIS TReC) along with the Eastern Idaho Regional GIS (EIRGIS) and Southeast Idaho GIS Users' Group (SEIGUG)

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December 10, 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).

PREFACE

For decades, Geographic Information Systems in east Idaho has been developing at a steady rate due, in large part to the efforts of numerous individuals within the GIS community. As a result, pockets of GIS infrastructure exist throughout the region. More recently, Idaho's GIS business plan identified an organizational component known as a Regional Resource Center (RRC) which was intended, to anchor state spatial data infrastructure objectives regionally. However, the exact mix of services and capabilities of each RRC was left for interested groups to define.

In September 2009, several regional groups were identified in response to a call for proposals by the Geospatial Information Office. These proposals identified geographic regions, overviews of GIS resources, and GIS practitioners within their respective regions that were associated with each proposed RRC. A December of that same year, a proposal was submitted by members of the east Idaho GIS community to the USGS/NSDI in response to a CAP grant opportunity. This proposal was selected for funding and as a result, a formal business plan for the East Idaho RRC was developed with the assistance of Croswell-Schulte IT Consultants and GIS Quality Design and Consulting. All documentation related to this proposal, including draft business plans can be accessed by visiting the project's website.

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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 Idaho Geospatial Office (IGO). This business plan has been prepared through a project managed by the ISU GIS Training and Research Center (GIS TReC), 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 included 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 RRC business planning has included input from GIS stakeholders from the entire state.

The planned purpose and roles of 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."*

The above statement defines a range of possible roles for the RRCs throughout the state. This business plan responds to the particular needs of the East Idaho 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 by this project, beginning in May, 2010:

- RRC business planning kick-off meeting, June 23 in Pocatello
- RRC discussion at the North Idaho GIS User Group meeting, June 28
- Comments posted to the "RRC Forum", a publicly accessible web forum (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 companion document, "Notes on Investigations about Potential Host Organizations and Outside Support" (http://giscenter.isu.edu/research/Techpg/caprrc/pdf/RRC_HostSupportingOrganizationFinal.pdf)
- RRC planning meeting, August 10 in Idaho Falls
- RRC discussion, August 11 EIRGIS meeting
- Several RRC project review meetings conducted at key project milestones
- Individual interviews and email exchanges with project participants

1.2 Mission and Objectives for RRCs

The East Idaho RRC shares the following mission common to all Idaho RRCs:

> *Be 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 "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.

RRCs are <u>not</u> intended to duplicate or replace programs and services provided by other organizations. Rather, the goal is to provide support and to collaborate with other organizations that make up the TIM program and stakeholder organizations (public, private, non-profit, and academic) to deliver services to and increase involvement of GIS users in their region.

The specific objectives for the East Idaho RRC include:

- Encourage and support the understanding of TIM Framework datasets and the adoption of associated standards and procedures for Framework stewardship.
- Encourage participation in and conveying of regional interests to the Idaho Geospatial Council (IGC-EC), Standing Committees, and Working Groups formed by the IGC Executive Committee (IGC-EC).
- Promote and enable mentoring, communication, and collaboration among organizations and individuals in the region.
- Provide an improved environment for communication, mutual support, and sharing of GIS news, applications, and best practices for GIS development and operation.
- 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.
- Establish a physical presence with necessary facilities (hardware, software, office space) to support RRC services (training, meetings, GIS services).
- 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.

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

1.3 Geographic Scope and RRC Status in the East Idaho Region

The East Idaho RRC includes the following counties (Figure 1):

- Bannock
- Bear Lake
- Bingham
- Bonneville
- Butte
- Caribou
- Clark
- Custer
- Lemhi
- Madison
- Franklin
- Fremont
- Jefferson
- Oneida
- Power
- Teton

In addition, the following counties (shown with hatching in Figure 1) are included in the East Idaho RRC, though it is anticipated they may form a Central Idaho RRC in the future.

- Blaine
- Camas
- Cassia
- Gooding
- Jerome
- Lincoln
- Minidoka
- Twin Falls

The primary mission of the East Idaho RRC is to serve users in the defined region but these boundaries do not restrict RRC support for and coordination with GIS stakeholder organizations outside the region. There is strong consensus that the different RRCs in the state should work closely together on the development and provisioning of services and programs that they sponsor. Where appropriate RRC participants in one 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.

Figure 1. Geographic Area of the East Idaho RRC Region including eight incubator counties that may form a new RRC in the future.

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 East Idaho 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 which are candidates for implementation. Also, not all planned RRC services will 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 (e.g., 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 East Idaho RRC are identified in Table 2.

Many of the services and programs defined in Tables 1 and 2 may currently be provided or planned by existing organizations (IGO, existing public sector organizations, university programs, and private sector companies). Including these for RRCs does not imply duplication or replacement of services and programs that are efficiently provided by these outside organizations. Rather, the RRCs will augment such programs and services of external organizations and collaborate directly with them to promote and support service delivery to individuals and organizations in their region.

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.	Minimal time or system resources
C. GIS Professional Labor Pool Management	This service would take the "GIS Contact Directory" (Service A) 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. **For the foreseeable future, this service will NOT be considered for implementation by the East Idaho RRC. It remains a candidate for possible implementation by other RRCs**.	N/A
D. GIS Project/Best Available 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 can accept data from Source Stewards and 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

Table 1: Potential RRC Services (con't)

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 is <u>not</u> 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

Table 1: Potential RRC Services (con't)

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 region (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*	The provision of 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 Web Services and Facilitation of Technology Transfer	Involves a service to design and deploy GIS-based Web services for any organization in the region (and potentially for users outside 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 Web service design and deployment with or without involvement of private firms although it should noted that effective private partnerships with GIS software and service firms may be quite effective. In addition, the RRC would provide a technology transfer function—providing information about successful applications and GIS applications and web services already implemented by some organizations in the region and supporting their adoption and deployment in other jurisdictions. Design and development of Web services is not considered to be a core service of the RRC but could take place under special circumstances. 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. Identifying this as a potential RRC service is not intended to duplicate such services provided by other organizations (e.g., ISU GIS TReC) but implies coordination and collaboration. 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 East Idaho RRC

Potential Program or Service	Priority*	Implementation/Operation Issues
A. Directory of GIS Contacts and Professional Networking Support	4-5	Work with the IGO and personnel in other regions to carry out a design and creation of a Web service. Need to identify a physical server and site for support of this Web service (e.g. State Department of Administration, ISU)
B. GIS News of Regional Importance	3-4	
C. GIS Professional Labor Pool Management	1	Not being considered for implementation in foreseeable future
D. GIS Project/Best Practices Catalog	5	See comments above for Services A and B.
E. Support Advocacy and Building Awareness of GIS Benefits	4-5	Carry out in coordination with IGC and regional GIS user groups. Take opportunities to demonstrate benefits to senior officials.
F. Regional Framework Steward	4-5	Maintain involvement in the Framework Stewardship planning process being carried out by the IGO. Support involvement of Source Stewards in the region and identify cases in which efficiencies can be provided by the RRC (performing data updates for multiple jurisdictions).
G. GIS Data/Metadata Compilation and Update	4	
I. Support/ Encourage Adoption of TIM Standards and Policies	4-5	Ensure the RRC members have formal role on work groups and committees established by the IGC.
J. Organize/Host GIS Meetings and Events	3-4	Provide information to RRC members about the availability of facilities to hold meetings and events. Establish a fixed meeting schedule (e.g., each quarter) to report on RRC status and get input from members and interested parties.
K. Prepare Project Specifications and Support GIS Services Procurement	3-4	Early after RRC activation, identify specific projects with funding for which the RRC may play a planning and coordination role.
L. Joint Project Negotiation and Management Support	3-4	
M. Coordinate, Promote, and Provide GIS Training and Education		The ISU GIS TreC will be the primary provider of GIS training. Involve RRC members identifying training needs and establishing a training program for the next year. Work with other educational institutions, GIS vendors, professional associations, and other parties in the providing the training (e.g., Intermountain GIS conference in March of 2011)
-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	Examine possible support from grant researchers in ISU and in the State Department of Commerce for grant research and writing. RRC manager should sign up for automatic notifications of federal grant opportunities from www.grants.gov.
P. Hosting GIS Data and Services	3-4	
Q. Designing/ Developing Web Services and Facilitation of Technology Transfer	3	

*Subjective indication of importance and appropriateness for the East Idaho RRC. A score of "5" means very high importance and a score of "1" indicates low importance and that this service or program should not be strongly considered for RRC operations. Priority scores reflect input from multiple project participants. High scores are assigned to those services and programs which should be considered for early implementation.

2.2 RRC Participation Categories

Services provided by the RRC need to be defined in the context of people and organizations that are providing RRC services and support and those using those services. Any organization or individual should be allowed to participate in and use of RRC programs and services. This includes any public, private, or non-profit organizations inside and outside of the RRC region. There will be

one formal category of RRC participation referred to as "*RRC Member*". This includes people and organizations, inside the RRC region (including all GIS stakeholders including 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 members, 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 register as members and to actively participate in RRC activities.

Non-member individuals and organizations can use RRC services and participate in RRC programs according to the terms established by the RRC. This may include:

- People or organizations inside the region which are not currently registered RRC members but still have an interest in using RRC services and programs.
- People or organizations outside the RRC region which use RRC services and programs.
- Public or private organizations that provide monetary or non-monetary tangible support to the RRC, normally through a formal agreement.
- Service providers, including private vendors, consultants, or contractors or non-profit organizations which provide products and services to the RRC (through a contract or purchase agreement).

2.3 RRC Benefits and Business Justification

Participants in the RRC planning process have identified a large range of tangible and intangible benefits that the RRC can help deliver. In large part, these benefits reflect those already identified in the 2009 *Statewide SDI Business Plan* (Section 3, http://gis.idaho.gov/portal/IGO/stratplan.htm). Some suggestions of high-priority GIS application areas, in which the RRC could play a role, include emergency services planning and response, election consolidation, economic development, water rights management, transportation and utility asset management, floodplain delineation, real property appraisal, and agricultural land management.

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 Benefits:

- 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 acknowledgment 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 the RRC and offering of RRC services:

- RRC development should follow a careful, incremental approach. Put in place high-priority and lower cost services first and gradually add additional resources and services. A general phasing for the East Idaho 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 East Idaho 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.

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 host 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 computationally intensive GIS, image processing, and modeling tasks. The Desktop computers should be loaded with the full ArcGIS desktop suite, select ArcGIS extension packages, and other desktop GIS, image processing, or spatial analysis software as needed.

Peripheral Computer Devices: At a minimum, a page size (letter, legal size) monochrome laser printer or multi-function device (print, scan, fax, copy) 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 is assumed that existing system resources of the ISU GIS TreC in Pocatello and potentially at the ISU Geosciences facilities at the University Place campus will support initial RRC operations.

3.3 Management and Staffing Requirements

3.3.1 RRC Management

Each RRC should have a manager with the responsibility to oversee 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 "host organization": To the extent possible, existing personnel of host organization (ISU GIS TreC) 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 on which this business plan is based, a number of organizational types were considered 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 administratively 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:

- Existing University-based program
- Existing Regional Organization
- Multi-organizational Consortia

A consensus has been reached that the most appropriate approach for the East Idaho RRC is to assign management and operations to the GIS Training and Research Center (GIS TreC) at Idaho State University in Pocatello. This approach also opens opportunities to use ISU Geosicence Program facilities at the University Place campus in Idaho Falls.

4.2 RRC Organizational Structure

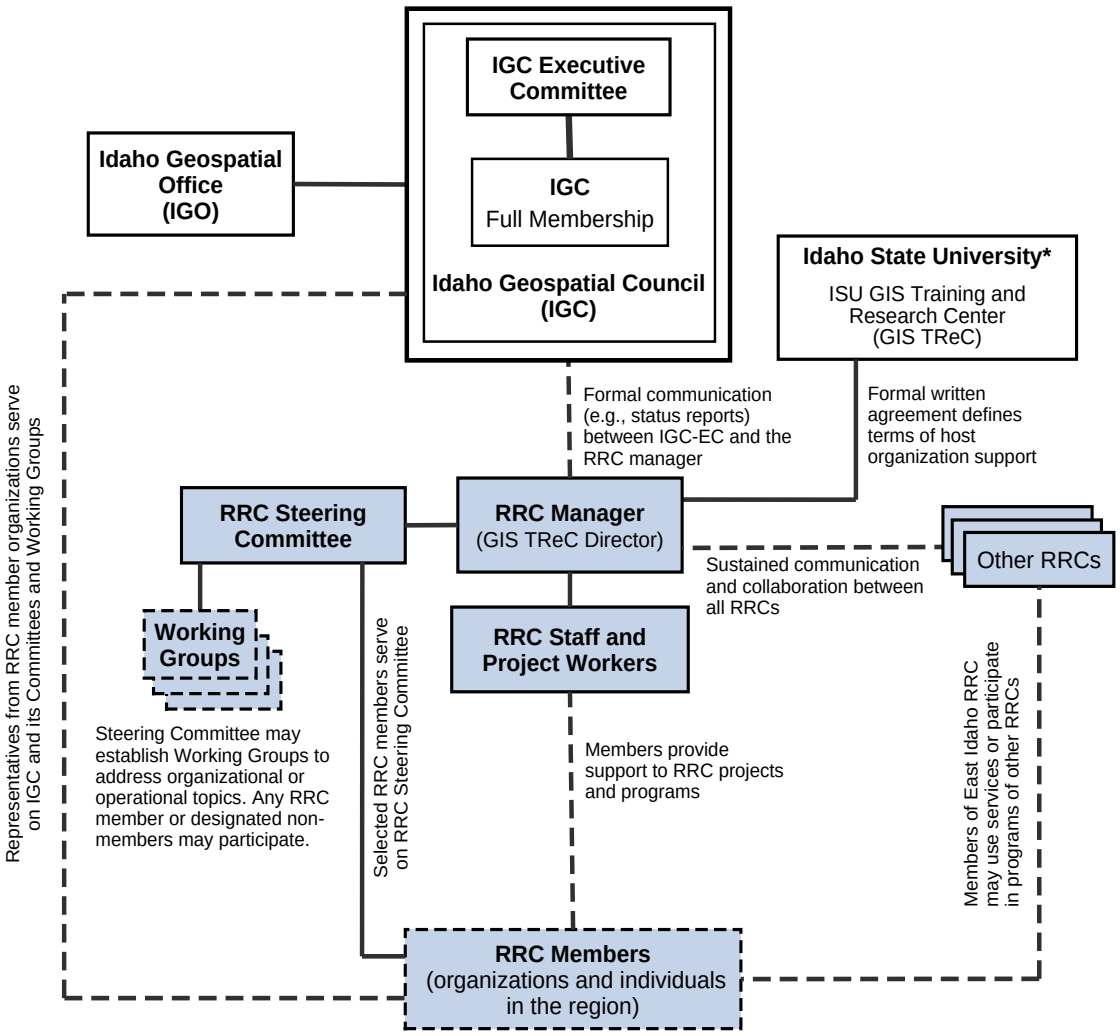
With the organizational type and host established, it is necessary to put in place a management structure for each RRC. Figure 1 below depicts the recommended management structure. The recommended structure allows for a level of autonomy that gives the RRC freedom to recruit members, pursue funding sources, 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. It is important that this group have strong representation from local governments in the region which constitute the primary RRC participant community. 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. The Steering Committee may establish any number of Working Groups to address specific organizational, technical, or operational issues during RRC formation or ongoing operation. For example, a "Local Government Working Group" has been suggested to represent specific needs of municipalities and county governments. Such a group could be involved in exploring and implementing specific services of importance to this membership sector. Other Working Groups could be formed to support other administrative and technical initiatives (e.g., By-laws development, RRC promotion and recruitment, design/development of a Web-based contact directory or another standard RRC service).

Figure 2 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 supports coordination among different RRCs and does not place restrictions on people or organizations from outside one RRC region, from using services or participating in programs from another RRC.

Figure 2: Management and Oversight Environment



*ISU's role as a host organization also provides options for the use of ISU facilities at the University Place campus in Idaho Falls (in addition to GIS TReC in Pocatello)

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 <u>all</u> RRCs (minor wording changes may be approved to address specific circumstances of the 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. The 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 with or statement up support by the host organization (ISU) will be prepared. The RRC works within the organizational structure and administrative procedures of ISU and carries out necessary management actions impacting personnel, contractual, financial, and operational responsibilities. The RRC manager is an ISU employee 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) formally endorses the RRC Business Plan and supports its formation. 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).
- RRC associate organization: The RRC will work with organizations (government, private, non-profit) which provide support or have involvement in an RRC program or service. This relationship will usually be documented in an agreement or contract. For the East Idaho RRC examples may include: a) RRC partners in a grant funded project, b) support from INL, c) GIS vendors that make in-kind contributions, or d) GIS service companies that are involved in RRC projects.
- 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 regional GIS user groups in the East Idaho region (SEIGUG or EIRGIS) will remain in existence, continue their 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, these regional user groups 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.

4.4 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 below in Table 3.

Table 3: RRC Core Administrative and Management Practices

Core Practice	Implementation/Operation Issues for the 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). See Section 6.4 for more information about RRC marketing and promotion.
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).
F. Work and Financial Tracking	A routine function for which the RRC manager is primarily responsible. This addresses 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.
G. 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.
H. 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

5.1 RRC Development Phases

Phase 1: RRC Preparation/Organization (6 months from IGC-EC plan endorsement)

Phase 1 work 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 "sign-up" regional members.

Phase 2: RRC Start-up and Initial Operations (12 to 18 months following end of Phase 1)

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 4) are put in place.

Phase 3: RRC Enhanced Service Deployment (12 months following end of Phase 2)

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 (priority scores of 3, 4, and 5) 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 established 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.

5.2 RRC Implementation Steps

Implementation steps associated with the four recommended RRC development phases are identified and described in Table 4. These implementation tasks are organized under the following categories:

- Organizational Set-up
- Funding and Resource Allocation
- Design and Establishment of Phase 2 RRC Programs and Services
- Design and Establishment of Phase 3 RRC Programs and Services
- Design and Establishment of Future (Phase 4) RRC Programs and Services
- Promotion, Recruitment, and External Relations
- Ongoing RRC Management

Table 4 identifies the Phase(s) associated with implementation tasks. Specific start and end dates are not included in this table because the actual timing will depend on plan endorsement by the IGC-EC, confirming support from the host organization, and funding that will become available. It is suggested that preparation of detailed work plans (with specific dates) be prepared to support implementation of RRC services and programs described in this plan.

Table 4: Implementation Tasks and Timing for the East Idaho RRC

Task Number and Name	Explanation	Phase	Dependencies/Linkages
1. Organizational Set-up			
1.1 IGC Executive Committee Endorses RRC Business Plan	A final draft of the RRC Business Plan should be submitted to the IGC Executive Committee for review and prompt endorsement. The IGC-EC may suggest revisions to the plan and appropriate changes will be made in a Final version of the plan. A Final Plan will then be prepared followed by formal approval by the Executive Committee.	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, the host organization will be identified and discussion of terms for RRC support will begin. For the East Idaho RRC, the host organization is Idaho State University.	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. This Business Plan (see Section 2.1) explains the current consensus on RRC programs and services, and their priority. In this task, these programs and services will be confirmed and priorities will be adjusted as appropriate.	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 East Idaho 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	The substance of the terms included in the approved template will remain but revisions and references to organizations or circumstances in the East Idaho region will be made. This will be endorsed by the IGC-Executive Committee.	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 and SEIGUG will be formally dissolved. The dissolution, approved by user group leaders, will be documented in writing and communicated to user group participants, the IGO, and the IGC.	1, 2	• Action taken after full agreement of EIRGIS and SEIGUG leadership in communication with members

Table 4: Implementation Tasks and Timing for the East Idaho RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
1.9 Assign RRC Manager	As early as possible after business plan approval, an individual should be assigned as RRC manager. As described in Section 3.3, 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.	1	• The RRC manager role is assigned to an existing employee of the host organization
1.10 Assign initial RRC Technical and Support Staff	For the East Idaho 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, and 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. Note: State government including ISU follow a July-to-June Fiscal Year.	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. Note: The companion document, "Notes on Investigations about Potential Host Organizations and Outside Support" (http://giscenter.isu.edu/research/Techpg/caprrc/pdf/RRC_HostSupportingOrganizationFinal.pdf) gives potential options for sources of support and funding. This document should be used as a basis for exploring and securing funding and non-monetary support.	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)

Table 4: Implementation Tasks and Timing for the East Idaho RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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. See Section 4.4.	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	
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.	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.	1, 2	

Table 4: Implementation Tasks and Timing for the East Idaho RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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 East Region RRC and other RRCs when they are formed. 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 East Region RRC and other RRCs when they are formed RRC. 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)

Table 4: Implementation Tasks and Timing for the East Idaho RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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 and support for training opportunities 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 takes 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

Table 4: Implementation Tasks and Timing for the East Idaho RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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
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)

Table 4: Implementation Tasks and Timing for the East Idaho RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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 provided for a fee (from RRC members or users that are undertaking a new project).	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
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 and support for training opportunities involves Service J (Organize Meetings and Events)
4.8 Hosting GIS Data and Services (P)	As described in Section 2, 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 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	

Table 4: Implementation Tasks and Timing for the East Idaho RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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	

Table 4: Implementation Tasks and Timing for the East Idaho RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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 4.8 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
5.7 GIS 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 RRC, intended services and benefits, and contact info. 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 gov'ts (County, City). A simple registration form will be developed and deployed (ideally Web-based and accessible from 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. For the campaign recruitment goals should stated and membership should be promoted through all available channels, including 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	

Table 4: Implementation Tasks and Timing for the East Idaho RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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 are 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)

Table 4: Implementation Tasks and Timing for the East Idaho RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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)

5.3 Implementation Responsibilities

Table 5 identifies specific offices or groups that have responsibility for RRC development and operation 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 5: Responsibilities for RRC Development and Operation

	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 Endorses RRC Business Plan	**L**	**P**		**P**							
1.2 Form RRC Steering Committee				**P**		**L**		**P**			
1.3 Identify and Get Commitment from Host Organization(s)					**O**	**L**				**P**	
1.4 Prepare and Ratify Agreement with Host Organization					**O**	**L**					
1.5 Identify Services and Programs for Phase 2 Implementation						**L**		**P**		**P**	
1.6 Prepare Template By-Laws or Charter	**O**					**P**		**P**		**L**	
1.7 Prepare and Ratify By-Laws or Charter for RRC	**O**					**P**				**L**	
1.8 Dissolve Regional User Group and Notification to Constituents	**O**	**P**		**L**		**P**				**L**	
1.9 Assign RRC Manager		**P**			**L**						
1.10 Assign initial RRC Technical and Support Staff					**O**	**L**		**P**		**P**	
1.11 Prepare detailed budget and resources needs for Phase 2		**P**			**O**	**L**				**P**	
1.12 Prepare detailed budget and resources needs for subsequent phases						**L**					
1.13 Create templates, tools, and standard operating procedures (SOP) for core management practices					**P**	**L**	**L**				

Table 5: Responsibilities for RRC Development and Operation (cont)

RRC Development Task	Responsibilities (L=Lead Role, P=Participant/Support, O=Oversight/Approval)										
	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
2. FUNDING AND RESOURCE ALLOCATION											
2.1 Identify and Secure Initial Funding and Resources for Phase 2		**P**			**P**	**P**				**L**	**P**
2.2 Put in Place Structure and Process for Membership Fee		**O**				**P**		**P**		**L**	
2.3 Establish Administrative Structure for Managing Funding					**O**	**L**	**P**				
2.4 Support Approval of State Budget Request for GIS	**P**	**L**				**P**		**P**		**P**	
2.5 Solicit Sponsorships and In-kind donations		**P**				**L**	**L**		**P**	**P**	**P**
2.6 Establish Grant Research and Writing Function		**P**				**L**		**P**			
2.7 Ongoing Work in Identifying and Securing Future Funding and Resources	**P**	**P**				**L**				**L**	**P**
2.8 Establish volunteer program and solicit volunteer staff						**L**	**P**			**P**	
2.9 Establish Student Intern Program					**P**	**L**				**P**	
3. DESIGN AND ESTABLISHMENT OF PHASE 2 PROGRAMS AND SERVICES											
3.1 Directory of GIS Contacts and Professional Networking Support (A)		**P**	**L**			**L**	**P**	**P**		**O**	
3.2 GIS News of Regional Importance (B)		**P**	**L**			**L**	**P**	**P**		**O**	
3.3 GIS Project/Best Practices Catalog (D)		**P**	**L**			**L**	**P**	**P**		**O**	
3.4 Support Advocacy and Building Awareness of GIS Benefits (E)		**L**				**P**	**P**	**P**		**L**	
3.5 Put in place Regional Framework Steward Role (F)		**L**	**P**			**L**	**P**	**P**		**P**	
3.6 Support/ Encourage Adoption of TIM Standards and Policies (I)	**O**	**L**	**P**			**L**	**P**	**P**		**O**	
3.7 Organize/Host GIS Meetings and Events (J)		**P**			**O**	**L**	**P**	**P**		**O**	
3.8 Coordinate and Promote GIS Training and Education (M)		**P**			**O**	**L**	**P**	**P**		**P**	
3.9 Grant Research Application Preparation, and Administration (O)					**P**	**L**	**P**			**O**	

Table 5: Responsibilities for RRC Development and Operation (cont)

RRC Development Task	Responsibilities (L=Lead Role, P=Participant/Support, O=Oversight/Approval)										
	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
4. DESIGN AND ESTABLISHMENT OF PHASE 3 PROGRAMS AND SERVICES											
4.1 Support Advocacy and Building Awareness of GIS Benefits (E)		**L**				**P**	**P**	**P**		**L**	
4.2 Put in place Regional Framework Steward Role (F)		**L**	**P**			**L**	**P**	**P**		**P**	
4.3 GIS Data/Metadata Compilation and Update (G)		**L**	**P**			**P**	**P**	**P**		**O**	
4.4 Organize/Host GIS Meetings and Events (J)		**P**			**O**	**L**	**P**	**P**		**O**	
4.5 Prepare Project Specifications and Support GIS Services Procurement (K)	**O**	**P**	**P**			**L**	**P**	**P**	**P**	**O**	
4.6 Joint Project Negotiation and Management Support (L)	**O**	**P**	**P**			**L**	**P**	**P**	**P**	**O**	
4.7 Provide GIS Training and Education (M)		**P**			**O**	**L**	**P**	**P**		**P**	
4.8 Hosting GIS Data and Services (P)		**P**			**P**	**L**	**P**				**P**
4.9 Web Services, Facilitate Technology Transfer (Q)		**P**			**P**	**L**	**P**		**P**		
5. DESIGN AND ESTABLISHMENT OF PHASE 4 PROGRAMS AND SERVICES											
5.1 GIS Professional Labor Pool Management (C)	Implementation not likely in foreseeable future										
5.2 Put in place Regional Framework Steward Role (F)		**L**	**P**			**L**	**P**	**P**		**P**	
5.3 GIS Data/Metadata Compilation and Update (G)		**L**	**P**			**P**	**P**	**P**		**O**	
5.4 Prepare Project Specifications and Support GIS Services Procurement (K)	**O**	**P**	**P**			**L**	**P**	**P**	**P**	**O**	
5.5 Provide GIS Training and Education (M)		**P**			**O**	**L**	**P**	**P**		**P**	
5.6 Hosting GIS Data and Services (P)		**P**			**P**	**L**	**P**		**P**		**P**
5.7 GIS Web Services: RRC Carries out Design and Development (Q)		**P**			**P**	**L**	**P**		**P**		
6. PROMOTION, RECRUITMENT, EXTERNAL RELATIONS											
6.1 Design and Set-up Initial RRC Web Page		**P**				**P**	**L**	**P**			
6.2 Prepare Promotional Materials		**P**	**P**			**L**	**P**	**P**		**P**	**P**
6.3 Carry Out Active Promotion		**L**				**L**	**L**	**P**		**P**	**P**
6.4 Recruit Initial Members	**O**	**P**		**L**		**P**				**L**	
6.5 Ongoing Recruitment of Members and Associates	**O**	**P**		**L**		**P**				**L**	
6.6 Identify RRC members for Participation in IGC Committees and Working Groups						**P**		**P**		**L**	
6.7 Conduct User Satisfaction/Needs Survey						**P**		**P**		**L**	
6.8 Process Calls, Requests, and Receive Visitors						**P**	**L**				
6.9 Respond to Requests for RRC Services						**L**	**P**				

Table 5: Responsibilities for RRC Development and Operation (cont)

RRC Development Task	Responsibilities (L=Lead Role, P=Participant/Support, O=Oversight/Approval)										
	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
7. ONGOING RRC MANAGEMENT											
7.1 On-going Staff/Personnel Management					**O**	**L**	**P**				
7.2 Monitor RRC Time and Finances					**O**	**L**	**P**				
7.3 Monitor RRC Activities and Service Delivery					**O**	**L**	**P**				
7.4 Prepare Detailed Management Reports	**O**				**O**	**L**	**P**				
7.5 Prepare Quarterly Status Report	**O**				**O**	**L**	**P**			**P**	
7.6 Schedule and Handle Logistics for RRC Events						**P**	**L**	**P**	**P**	**O**	
7.7 Set-up Management Structure for New Projects						**L**	**P**				
7.8 Periodic Review and Audit of RRC Operations	**O**					**P**				**L**	

6. FINANCING STRATEGIES AND RRC PROMOTION

6.1 Potential Funding Sources and In-kind Contributions

Table 6 identifies potential sources for funding or non-monetary in-kind contributions (staff time, special services, equipment, software) to support RRC start-up and ongoing operations. At the time of this *Business Plan* completion, specific funding and support sources have not been secured but options have been explored. An important part of RRC implementation is to fully investigate potential sources and get commitments for RRC start-up. The companion document to this plan, "Notes on Investigations about Potential Host Organizations and Outside Support" (http://giscenter.isu.edu/research/Techpg/caprrc/pdf/RRC_HostSupportingOrganizationFinal.pdf) explains potential support and funding options and gives a starting point for exploring opportunities.

Table 6: Possible Sources for RRC Funding and In-Kind Contributions

Funding/Support 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). Note: 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 East Idaho RRC (ISU GIS TreC). Note: It is recognized that the host organization (ISU) will have limitations on the level of in-kind contributions that can be provided. 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 ISU for use of facilities and staff contributions
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. Note: This source is dependent on finding unused funds, allocated for student interns that could be used by an RRC at no or low cost.
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 FY2013 (if appropriated)	The IGO plans to submit an executive budget request for TIM program activities which includes an allocation of funding for RRCs (for Fiscal Year 2012). Note: This is considered an important source of funding but at this point, there is no certainty that funding will be approved (for FY 2013 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). Note: The companion document, "Notes on Investigations about Potential Host Organizations and Outside Support" (http://giscenter.isu.edu/research/Techpg/caprrc/pdf/RRC_HostSupportingOrganizationFinal.pdf) gives potential options for grant funding.

Table 6: Possible Sources for RRC Funding and In-Kind Contributions (cont.)

Funding/Support Source	Description
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.
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. Note: 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 Note: 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. Revenue generation would need to adhere to applicable laws and policies that impact public agency charging fees.
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. Note: 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. Note: This is a possibility but must take into account legal limitations on governmental sale of data products and services as well as potential conflicts of competition with private companies.
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 a large portion of the funds would be allocated back to local gov'ts 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.

6.2 RRC Budgeting and Financing Strategy

Preparation of RRC budget projections for Phase 1 or subsequent phases is difficult given the uncertainty of potential sources of funding. Phase 1, which begins after *Business Plan* endorsement by the IGC-EC, involves RRC organization and set-up activities. It is assumed that a combination of limited "donated time" by the East Idaho RRC host organization and volunteers will provide staff resources needed for much of the Phase 1 work. In addition, remaining funding of the current CAP Grant (2010 award for RRC business planning) will provide some basic funding to support RRC formation and start-up. The funding uncertainty creates a situation where RRC implementation must be opportunistic. with active fund raising and solicitation of in-kind contributions, programs and services will be put in place, as funding and support is made available and according to priorities and timing explained in this *Business Plan*.

A reasonable annual budget target for the first year of RRC operations, after Phase 1 is complete (mid-year 2011), is $90,000 with a comparable level of non-monetary in-kind contributions of services or capital. This requires the securing of funds and in-kind support for FY 2011-2012 Subsequent years will require budget expansion if additional RRC programs and services are to be deployed.

Among the potential sources of RRC funding and in-kind support explained in Table 6, initial focus should be placed on the following:

- In-kind support from host organization (ISU) or supporting organization (e.g., INL)
- Volunteer time from participating organizations (particularly by individuals who have active in regional user group activities
- TIM Budget Request for FY2013: will require work with IGO to support ratification of this budget request
- Grant awards—initially the 2011 round of NSDI CAP grants and the potential for a small grant from INL. See companion document, "Notes on Investigations about Potential Host Organizations and Outside Support" (http://giscenter.isu.edu/research/Techpg/caprrc/pdf/RRC_HostSupportingOrganizationFinal.pdf)
- Sponsorship fee from private companies or non-profit organizations

6.3 RRC Promotion and Marketing

RRC promotion and marketing is a core administration and management practice identified in Table 4 and Task Series 6 ("Promotion, Recruitment, and External Relations") in the Table 5 (Implementation Steps). Promotion, outreach, and expanding awareness are also important items in the State's TIM (aka "ISDI") *Business Plan* (see Implementation Initiatives under the "Education, Outreach, and Communications" category in Table 6 and Section 5.4). For this reason, RRC promotion should be coordinated with TIM activities and events organized by the IGO, IGC and other RRCs. The objectives of a planned, organized RRC promotion campaign are: a) to increase awareness of the RRC and availability of services, b) to increase membership and level of participation by individuals and organizations, and c) to support fundraising activities. This is particularly important in Phase 1 but is a continuing activity in all phases.

Marketing and promotional activities should use a variety of communication media and channels and should be developed with a clear idea of the message to be delivered and the recipient groups to which the message is being directed (the specific public, private, academic, and non-profit

organizations that are potential RRC participants). RRC implementation activities in Task Series 6 (see Table 5) are supported by a number of promotional and outreach approaches and media types including:

- Presentations and briefings at events (GIS conferences, agency meetings, meetings and events sponsored by professional and trade organizations).
- Web page content that explains RRC goals and services and which solicits participation and feedback (including on-line member registration).
- Preparation of "advertising" materials (flyers, brochures) which can be distributed in digital or electronic form.
- Email broadcasts (via the Geotech Listserv or other group message distribution) which provide news and solicits participation.
- Distribution of publications prepared by RRC members.
- Press/Media Releases highlighting RRC projects and accomplishments.

BUSINESS PLANNING GUIDELINES FOR GIS REGIONAL RESOURCE CENTER DEVELOPMENT AND OPERATION

$$This document contains guidelines to be used as a starting point for GIS Regional Resource Center (RRC) business plan development and instructions for the use of the guideline in a specific business planning project. The guidelines describe a recommended workflow for a new business planning project. This document includes content that is likely to be the same or similar for different RRC regions in Idaho and it includes specific types of highlighting and annotation to direct the user in plan preparation.

Prepared by

Idaho RRC Planning Team*

*Includes representatives of the Idaho State University's GIS Training and Research Center (GIS TreC) along with the Eastern Idaho Regional GIS (EIRGIS) and Southeast Idaho GIS Users' Group (SEIGUG)

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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).

PREFACE

This document contains guidelines for preparation of business plans for GIS Regional Resource Centers (RRC). It has been prepared through a project managed by the Idaho State University GIS Training and Research Center (GIS TReC) and has been 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 included 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 RRC business planning has included input from GIS stakeholders throughout Idaho. The purpose of these guidelines is to provide a foundation and support for RRC development throughout the state. While the primary focus is on Idaho, this document has applicability for any statewide GIS program for which improved regional participation and coordination is needed.

This guideline document consists of a model RRC business plan that may be used as a starting point for preparation of a specific RRC planning initiative. It includes comments and annotation intended to guide the user through the plan preparation process.

EXPLANATION OF TEXT CONVENTIONS AND ANNOTATION USED IN THIS DOCUMENT

This RRC business plan guideline document uses a number of conventions for font type, format, and annotation to facilitate its use as a starting point for business plan preparation. The guideline document includes considerable amount of content that is likely to be used (with any necessary modification) in a specific RRC business planning project. The annotation and highlighting conventions explained below will direct the user in making appropriate modifications for preparing a specific business plan. Some basic directions for use of this template document and creation of a new business plan document include:

- This standard document uses a customized Microsoft Word Style sheet to control basic font and spacing format. It has been saved as a Word document template (.dot extension) instead of a regular Word document (.doc). By doing so, the formatting will be preserved as changes are made the resulting business plan is Saved as a Word .doc file.
- Headings use automatic numbering so all heading numbers will change if new sub-sections are added or existing ones deleted, Keep in mind that there are references in the text to specific business plan sections and sub-sections so these will need to be edited if the headings are changed or added.
- It will be necessary to set new page breaks after all document changes have been made. Also, all embedded comments and annotation should be removed as well.

The font, annotation, and highlighting conventions used in this template are explained in the following table.

Example	Explanation
Standard body text for the business plan will use this font type and size	Standard text that is recommended for use in all RRC Business Plans. This text may be edited or added to based on the needs of a specific RRC business planning project.
Optional text will look like this SECTION 2: Xxxxxx <OPTIONAL>	Template document text that may optionally be used or omitted, depending on the circumstances will use text with gray highlighting. Also, when an entire Section or sub-Section is optional, the Section or sub-Section heading will be annotated with the <OPTIONAL> flag
[##explanation of text to fill in]	Text that needs to be filled in for a specific Business Plan will be enclosed in brackets with a "##" flag in the beginning and shaded in cyan. This may include single words, phrases, one or more sentences, or paragraphs.
a) $$User notes or commentary *b) $$User notes or commentary* *c)* *$$Large notes or explanatory text for the user of the template document*	The template document will include "user notes"—explanatory text and commentary for the user that gives guidelines and directions about how to use the template or the meaning and applicability of certain sections. User notes will use the following: a) Italicized text beginning with "$$" embedded at any point in the template. Used for short explanatory notes about specific passages b) Word Comment: uses the Microsoft Word Comment tool (accessed from the Review tool panel). When displayed or printed in Layout View, document text will be reduced in size and Comments appear in call-out boxes in the right margin. In Draft View, comments are displayed on top of the text when the cursor hovers over the highlighted text. c) Comment box: italicized text starting with a "$$" enclosed in a box when the explanatory text is lengthy
www.Hyperlink.org	Any links to Web sites or external documents will use this annotation.

Comment [plc1]: This is a user comment to provide explanatory information about a part of the RFP

RRC BUSINESS PLANNING WORKFLOW AND INSTRUCTIONS

Introduction

RRC business planning is a means to an end—formation and implementation of the RRC to benefit GIs users in the region and to contribute to The Idaho Map program. The business plan must be practical and define an implementation path that is specific to the RRC region. This business planning template is provided to guide the planning process and to support expeditious business plan preparation so that RRC implementation can move forward.

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 Idaho Geospatial Office (IGO). Maintaining the identity of the RRC as one part of TIM is essential

The planned purpose and roles of 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."

Questions in the use of this guideline document should be addressed to:

Keith T. Weber, GIS Director, Idaho State University (webekeit@isu.edu)

Preparation for RRC Planning

The following preparation steps, recommended before initiating RRC plan preparation, will greatly streamline the RRC business plan:

1. Assemble a planning team that will have the primary responsibility for plan preparation. Planning teams should include regional user group members who have already been involved in developing RRC proposals. These proposals may be found at: http://gis.idaho.gov/portal/IGO/regions/regions.htm.

2. With the RRC planning team in place, assign a leader and roles for the team.

3. Confirm and document the geographic region to be served by the RRC.

4. Review the status of TIM initiatives including actions relating to other RRCs, actions of the Idaho Geospatial Council (IGC), and other TIM developments that may impact RRC implementation.

5. Identify potential host and supporting organizations which may be candidates for establishing a physical presence for the RRC or providing other tangible support. Hold discussions with these organizations to determine the likelihood and nature of their involvement in RRC implementation and operations.

6. Examine the organizational type that is most appropriate for the RRC. This will be largely dependent on a decision about the host organization (Step 4). Table 3 describes possible organization types.

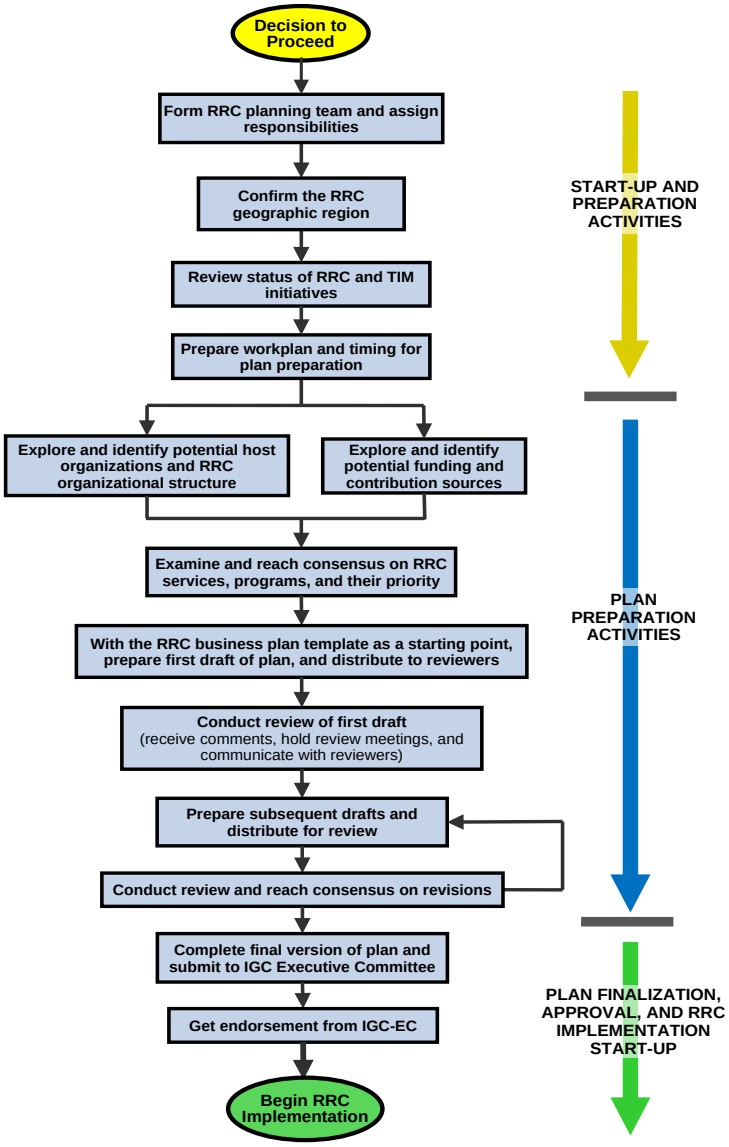
7. To the extent possible, explore and identify potential funding sources for the RRC. Table 7 explains potential options for funding and in-kind contributions. These options, and others that may be identified, should be explored at a sufficient level to determine the likelihood, timing, and approach for securing the funding or contributions.

8. Establish and document a work plan and timing for business plan preparation.

Workflow for RRC Business Plan Preparation

The main steps in RRC planning are shown in the following figure.

Main Steps in RRC Business Plan Preparation



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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 Idaho Geospatial Office (IGO). [##Include additional explanation about a specific RRC business planning effort: a) party(ies) leading the effort, b) sources of funding or sponsorship, c) specific region, d) other important information about the basis for the planning and participation groups]

The planned purpose and roles of 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."*

The above statement defines a range of possible roles for the RRCs throughout the state. This business plan responds to the particular needs of the [##insert name of region] 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 by this project, beginning [##insert date as month, year]:

Comment [plc2]: The link references a Web page maintained by the IGO, for access to submitted RRC proposals. Double check to make sure that this reference and the link is active.

$$In the bullet point list below, insert a brief reference to important steps, activities, and milestones that were part of the Business Plan development effort

- [##insert brief reference to RRC planning activity or milestone]
- [##insert brief reference to RRC planning activity or milestone]
- [##insert brief reference to RRC planning activity or milestone]

1.2 Mission and Objectives for RRCs

The [##insert name of region] RRC shares the following mission common to all Idaho RRCs:

$$The mission statement below was agreed to during the initial business planning project in 2010 supported by a NSDI CAP grant.

> *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 "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.

RRCs are <u>not</u> intended to duplicate or replace programs and services provided by other organizations. Rather, the goal is to provide support and to collaborate with other organizations that make up the TIM program and stakeholder organizations (public, private, non-profit, and academic) to deliver services to and increase involvement of GIS users in their region.

The specific objectives for the [##insert name of region] RRC include:

- Encourage and support the understanding of TIM Framework datasets and the adoption of associated standards and procedures for Framework stewardship.
- Encourage participation in and conveying of regional interests to the Idaho Geospatial Council (IGC-EC), Standing Committees, and Working Groups formed by the IGC Executive Committee (IGC-EC).
- Promote and enable mentoring, communication, and collaboration among organizations and individuals in the region.
- Provide an improved environment for communication, mutual support, and sharing of GIS news, applications, and best practices for GIS development and operation.
- 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.
- Establish a physical presence with necessary facilities (hardware, software, office space) to support RRC services (training, meetings, GIS services).
- 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.
- 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.
- 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).
- Support efficient government-private partnerships and regional economic development initiatives.

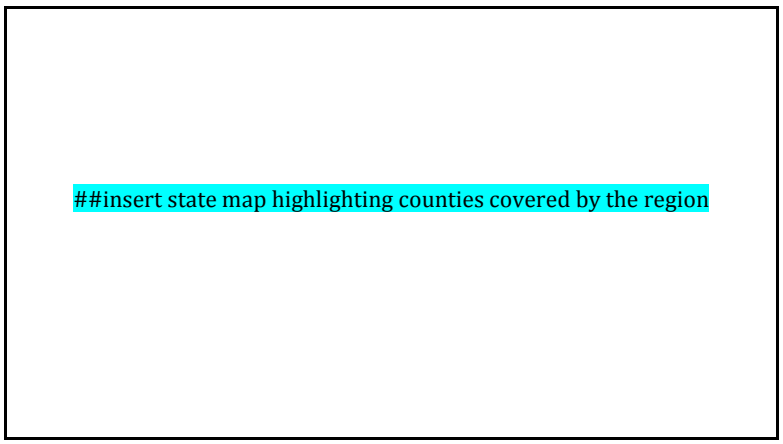
Comment [plc3]: This set of objectives was developed as part of the 2010 CAP Grant funded RRC business planning project. Consider these objectives to be generally applicable to any RRC but they may be revised for a specific RRC business planning effort.

1.3 Geographic Scope and RRC Status in the [##insert name of region] Region

The [##insert name of region] RRC includes the following counties also displayed in Figure 1:

- [##insert county name]
- [##insert county name]
- [##insert county name]
- [##insert county name]
- [##insert county name]
- [##insert county name]

Figure 1: Geographic Area of the [##insert name of region] Region



The primary mission of the [##insert name of region] RRC is to serve users in the defined region but these boundaries do not restrict RRC support for and coordination with GIS stakeholder organizations outside the region. There is strong consensus that the different RRCs in the state should work closely together on the development and provisioning of services and programs that they sponsor. Where appropriate RRC participants in one 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 [##insert name of region] 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

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 [##insert name of region] RRC are identified in Table 2.

Many of the services and programs defined in Tables 1 and 2 may currently be provided or planned by existing organizations (IGO, existing public sector organizations, university programs, and private sector companies). Including these for RRCs does not imply duplication or replacement of services and programs that are efficiently provided by these outside organizations. Rather, the RRCs will augment such programs and services of external organizations and collaborate directly with them to promote and support service delivery to individuals and organizations in their region.

$$This table includes a comprehensive set of services identified during the 2010 CAP Grant funded RRC business planning project. The description of services described here may be revised as necessary, services listed may be deleted, and new services may be added as appropriate for a specific RRC region. Editing of this table should take into account services that may already be implemented or in development by existing RRCs which may support operations of the planned RRC (e.g., Web-based contact directory established by an existing RRC which could also be used by a newly formed RRC).

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 host 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 Available 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

Table 1: Potential RRC Services (con't)

Potential Program or Service	Description	Resource Requirements
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”

Table 1: Potential RRC Services (con't)

Potential Program or Service	Description	Resource Requirements
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 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*	The provision of 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.

Table 1: Potential RRC Services (con't)

Potential Program or Service	Description	Resource Requirements
Q. Designing/ Developing Web Services and Facilitation of Technology Transfer	Involves a service to design and deploy GIS-based Web services for any organization in the region (and potentially for users outside 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 Web service design and deployment with or without involvement of private firms although it should noted that effective private partnerships with GIS software and service firms may be quite effective. In addition, the RRC would provide a technology transfer function—providing information about successful applications and GIS applications and web services already implemented by some organizations in the region and supporting their adoption and deployment in other jurisdictions. Design and development of Web services are not considered to be a core service of the RRC but could take place under special circumstances. 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. Identifying this as a potential RRC service is not intended to duplicate such services provided by other organizations but implies coordination and collaboration. 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.

$$This table is a "companion" to Table 1. It identifies specific RRC programs or services planned for implementation. The "Priority" is a subjective score indicating the relative importance of the program or services and gives an indication of the planned order of implementation. Priority scores have been included here (based feedback during the 2010 RRC business planning project but the scores should be revised to reflect the circumstances of the proposed RRC. Text should be added to the 3rd column to describe particular issues, approaches, conditions, limitations, or other considerations impacting implementation and operation of the program or service.

Table 2: Services Selected for Implementation for the [##insert name of region] RRC

Potential Program or Service	Priority	Implementation/Operation Issues for the *[##insert name of region]* 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 [##insert name of region] RRC. A score of "5" means very high importance and a score of "1" indicates low importance and that this service or program should not be strongly considered for RRC operations

2.2 RRC Participation Categories

Services provided by the RRC need to be defined in the context of people and organizations that are providing RRC services and support and those using those services. Any organization or individual should be allowed to participate in and use of RRC programs and services. This includes any public, private, or non-profit organizations inside and outside of the RRC region. There will be one formal category of RRC participation referred to as "*RRC Member*". This includes people and organizations, inside the RRC region (including all GIS stakeholders including 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 members, 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 register as members and to actively participate in RRC activities.

Non-member individuals and organizations can use RRC services and participate in RRC programs according to the terms established by the RRC. This may include:

- People or organizations inside the region which are not currently registered RRC members but still have an interest in using RRC services and programs.
- People or organizations outside the RRC region which use RRC services and programs.
- Public or private organizations that provide monetary or non-monetary tangible support to the RRC, normally through a formal agreement.
- Service providers, including private vendors, consultants, or contractors or non-profit organizations which provide products and services to the RRC (through a contract or purchase agreement).

2.3 RRC Benefits and Business Justification

Comment [plc4]: This is a basic set of benefits and justification for RRC formation which applies generally to all RRCs. It is a good idea to elaborate on this and identify other potential benefits that apply to a specific region.

Participants in the RRC planning process have identified a large range of tangible and intangible benefits that the RRC can help deliver. In large part, these benefits reflect those already identified in the 2009 *Statewide SDI Business Plan* (Section 3, http://gis.idaho.gov/portal/IGO/stratplan.htm).

$$This section includes a general description of benefits which apply generally to any RRC. As appropriate, this section should be expanded and elaborated upon, with an identification of benefits projected for a specific RRC.

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 Benefits

- 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 RRC services:

- RRC development should follow a careful, incremental approach. Put in place high-priority and lower cost services first and gradually add additional resources and services. A general phasing for [##insert name of region] 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 [##insert name of region] 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 [plc5]: The assumption is that any RRC will have a host organization" that will provide a physical presence for RRC activities and basic support (which may include some support staff, meeting facilities, system infrastructure. Proposals for Idaho RRCs have identified potential host organizations and these options were examined, in part, during the 2010 business planning project. A key requirement for the business plan is to identify a specific host organization (or organizations) for the planned RRC.

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

$$The list below is a basic set of office/infrastructure elements that apply generally to all RRCs. For a specific planned RRC, this list should be revised and elaborated upon as appropriate.

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 computationally intensive GIS, image processing, and modeling tasks. The Desktop computers should be loaded with the full ArcGIS desktop suite, select ArcGIS extension packages, and other desktop GIS, image processing, or spatial analysis software as needed.

Peripheral Computer Devices: At a minimum, a page size (letter, legal size) monochrome laser printer or multi-function device (print, scan, fax, copy) 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.

$$The text below should be modified to describe known sources of facilities and system support.

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 with the responsibility to oversee 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 "host organization": To the extent possible, existing personnel of host organization should fill RRC management, administrative support, and technical

Comment [plc6]: The assumption is that any RRC will have a host organization" that will provide a physical presence for RRC activities and basic support (which may include some support staff, meeting facilities, system infrastructure. Proposals for Idaho RRCs have identified potential host organizations and these options were examined, in part, during the 2010 business planning project. A key requirement for the business plan is to identify a specific host organization (or organizations) for the planned RRC.

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

A general consensus on the following key organizational requirements was established:

- Establishment of the RRC organization should be as administratively 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

During the planning process, a number of organizational types were considered. These include: a) Informal, "Virtual" Organization, b) Existing University-based program, c) New University Program, d) Existing Regional Organization, e)Multi-organizational Consortia, g) New Non-Profit Organization.

$$The following table provides an explanation of the potential organizational types as an aid to RRC planners. This table does NOT need to remain in the final Business Plan. It is provided mainly to support examination of different organizational approaches.

Table 3: 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) University Place-Idaho Falls, Geosciences Program, d) 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 host 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.

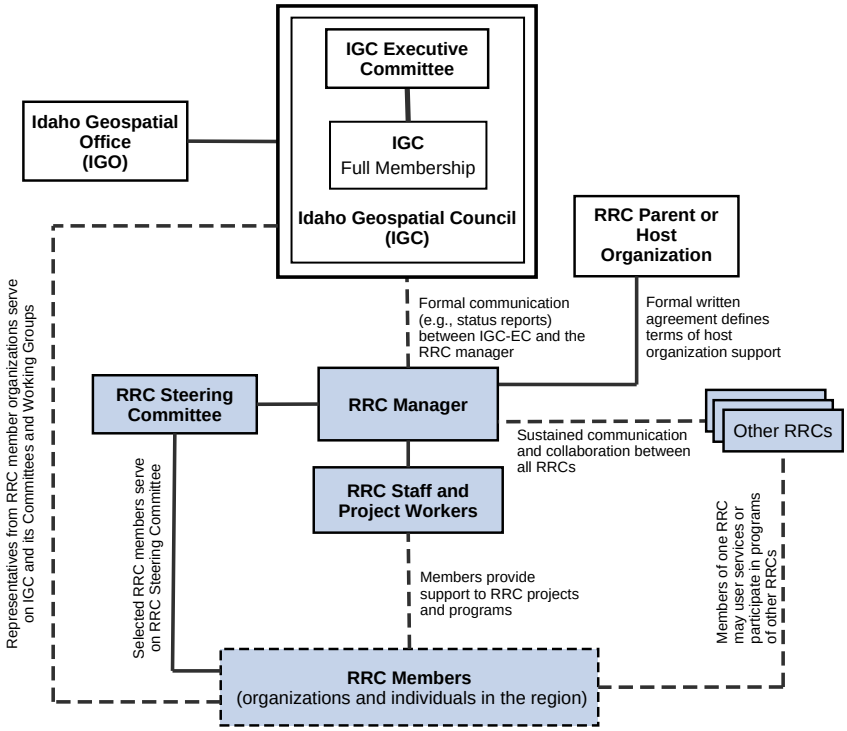
An RRC manager will be assigned and this position, at least initially, will be a part-time function ideally filled by an individual whose existing position in the host organization is compatible with the RRC mission and objectives. This organizational structure includes an "RRC Steering Committee" made 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. *$$The Steering Committee may form committees or working groups as necessary to engage RRC members and supporting organizations in RRC development and operation*

Figure 2 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 supports coordination among different RRCs and does not place restrictions on people or organizations from outside one RRC region, from using services or participating in programs from another RRC.

Comment [plc7]: This section describes a recommended RRC organizational structure that is generally application to any Idaho RRC. Important elements include the host organization, a designated RRC manager (not necessarily full-time), a Steering Committee made up of representatives from RRC member organizations, and a sustained relationship with the IGO and IGC. This basic elements should be established for all RRCs although adjustments may be made, as appropriate, for a specific, newly formed RRC.

Comment [plc8]: A specific RRC will make decisions on the structure and composition of the Steering Committee. The Steering Committee is a body that represents RRC membership. It is not intended to be a "governing board" but a body that supports and works with the RRC manager to achieve RRC development objectives and ongoing service to members.

Figure 2: 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 [##insert name of region] 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. The 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

Comment [plc9]: A set of By-Laws or Charter is important but it does not need to be completed before the initial formation of the RRC, but should be one of the first activities to pursue after RRC formation. Check the availability of a By-Laws document from an existing RRC that might be used for the planned RRC.

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:

$$The relationships described below are generally applicable for any RRC but text should be revised, and additional relationships added to reflect circumstances for the planned RRC

- RRC host organization: A formal agreement exists in which the host organization 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) formally endorses the RRC Business Plan and supports its formation. RRC members volunteer time for serving on the IGC and specific Working Groups or Committees established by the IGC (or its Executive Committee). As provided for in the IGC By-Laws, RRC representatives serve on the IGC Executive Committee (IGC-EC).
- RRC associate organization: The RRC will work with organizations (government, private, non-profit) which provide support or have involvement in an RRC program or service. This relationship will usually be documented in an agreement or contract. Examples may include: a) RRC partners in a grant funded project, b) GIS vendors that make in-kind contributions, or c) GIS service companies that are involved in RRC projects.
- 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 *[## insert name of existing GIS user group]* 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 *[## insert name of existing GIS user group]* 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: *$$A given region may have one or more specific options for relationships with university supported bodies or programs. These should be described here.*
- ##add additional relationship:

Comment [plc10]: Eventual dissolution of an existing GIS regional user group (representing the same geography as the RRC) seems to be a logical move—at a point when the RRC assumes roles now carried out by the user group. However, if there is a compelling reason to keep a user group active, this should be stated.

4.4 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 RRC Administrative and Management Practices

$$These core functions are generally common to all regions but they may be revised and added to for a specific planned RRC

Core Practice	Implementation/Operation Issues for the [##insert name of region]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). See Section 6.4 for more information about RRC marketing and promotion.
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).
F. Work and Financial Tracking	A routine function for which the RRC manager is primarily responsible. This addresses 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.
G. 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.
H. 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

5.1 RRC Development Phases

Comment [plc11]: These phases define a long-term development path for an RRC. The purpose is to organize long-term development activities in a structure that can help identify major milestones and resource needs. The four phases described here provide a structure that is appropriate for any RRC development effort but planners for a new RRC may revise descriptions and recommended timing and, if appropriate, add or delete phases. The beginning of the timing for Phase 1 is assume to be the point at which the business plan is approved by the IGC.

Phase 1: RRC Preparation/Organization (6 months from IGC-EC Plan Endorsement)

Phase 1 work 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.

Phase 2: RRC Start-up and Initial Operations (12 to 18 months following end of Phase 1)

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 4) are put in place.

Phase 3: RRC Enhanced Service Deployment (12 months following end of Phase 2)

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 (priority scores of 3, 4, and 5) 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 established 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.

5.2 RRC Implementation Steps

Implementation steps associated with the four recommended phases are identified and described in Table 5. These implementation tasks are organized under the following categories:

- Organizational Set-up
- Funding and Resource Allocation
- Design and Establishment of Phase 2 RRC Programs and Services
- Design and Establishment of Phase 3 RRC Programs and Services
- Design and Establishment of Future (Phase 4) RRC Programs and Services
- Promotion, Recruitment, and External Relations
- Ongoing RRC Management

Table 4 identifies the Phase(s) associated with implementation tasks. Specific start and end dates are not included in this table because the actual timing will depend on plan endorsement by the IGC-EC, confirming support from the host organization, and funding that will become available. It is suggested that preparation of detailed work plans (with specific dates) be prepared to support implementation of RRC services and programs described in this plan.

$$The implementation tasks and activities in the table below are generally applicable for any RRC. No specific timing has been included since this will be specific to a particular RRC, resources available, etc. While these tasks and activities are generally applicable, a specific RRC will have requirements which this table does not fully address. RRC planners should edit this table by adding or deleting tasks and revising the Explanations (2nd column) and the Dependencies/Linkages (4th column). This table may also be used as a basis to enter planned start and end times for each task.

Table 5: Implementation Tasks and Timing for the [##insert name of region] RRC

Task Number and Name	Explanation	Phase	Dependencies/Linkages
1. Organizational Set-up			
1.1 IGC Executive Committee Endorses RRC Business Plan	A final draft of the RRC Business Plan should be submitted to the IGC Executive Committee for review and prompt endorsement. The IGC-EC may suggest revisions to the plan and appropriate changes will be made in a Final version of the plan. A Final Plan will then be prepared followed by formal approval by the Executive Committee.	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 [##insert name of region] 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. This Business Plan (see Section 2.1) explains the current consensus on RRC programs and services, and their priority. In this task, these programs and services will be confirmed and priorities will be adjusted as appropriate.	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 [##insert name of region] 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	The substance of the terms included in the approved template will remain but revisions and references to organizations or circumstances in the [##insert name of region] region will be made. This will be endorsed by the IGC-Executive Committee.	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 [##insert name of existing regional GIS user group(s)] will be formally dissolved. The dissolution, approved by user group leaders, will be documented in writing and communicated to user group participants, the IGO, and the IGC.	1, 2	• Action taken after full agreement of user group leadership in communication with members

Comment [plc12]: The type of agreement and its signatories will depend on circumstances in each region and the specific host organization.

Table 5: Implementation Tasks and Timing for the [##insert name of region] RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
1.9 Assign RRC Manager	As early as possible after business plan approval, an individual should be assigned as RRC manager. As described in Section 3.3, 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.	1	• The RRC manager role is assigned to an existing employee of the host organization
1.10 Assign initial RRC Technical and Support Staff	For the [##insert name of region] 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.	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. Note: The companion document, "Notes on Investigations about Potential Host Organizations and Outside Support" (http://giscenter.isu.edu/research/Techpg/caprrc/pdf/RRC_HostSupportingOrganizationFinal.pdf) gives potential options for sources of support and funding. This document should be used as a basis for exploring and securing funding and non-monetary support. *$$Include any known information about specific sources of funding or support which are likely or confirmed.*	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)

Table 5: Implementation Tasks and Timing for the [##insert name of region] RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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. See Section 4.4. *$$Elaborate as appropriate on specific accounting practices*	1, 2	
2.4 Support Approval of State Budget Request for GIS	Provide any needed information or tangible support for the approval of funding for the state's TIM program and an allocation for RRC development. This may include providing "testimonial stories" on GIS benefits in the region, endorsements from senior officials in the region, or other forms of support.	1	
2.5 Solicit Sponsorships and In-kind donations	A sponsorship program will be put in place for donations of monetary or non-monetary contributions from organizations inside or outside the region. A sponsorship program would be principally aimed and private companies and non-governmental organizations. Sponsorship program development would include: a) identification of potential donors, b) promotional information describing the program and sponsorship levels, c) a management and accounting process that allows for the acceptance of donations, d) active solicitation of sponsors.	All	
2.6 Establish Grant Research and Writing Function	Put in place a process and assigned personnel for the research, identification, and preparation of grant applications which may support RRC activities. Grants programs may be administered by Federal or State agencies, or non-governmental organizations. In some cases, the RRC may play a lead role in grant application (often assembling a proposed team for resulting work) or it may be a party to a grant project lead by another organization. Establishing an effective grant research and application program requires coordination with individuals already involved in this work. *$$include more information, if available, about an approach and sources for support in grant research and grant application preparation*	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	

Table 5: Implementation Tasks and Timing for the [##insert name of region] RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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. *$$Insert additional elaboration on specific educational institutions and intern programs that may apply*	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 [##insert name of region] 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 [##insert name of region] 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

Table 5: Implementation Tasks and Timing for the [##insert name of region] RRC (con't)

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 and support for training opportunities involves Service J (Organize Meetings and Events)

Table 5: Implementation Tasks and Timing for the [##insert name of region] RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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 takes 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
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

Table 5: Implementation Tasks and Timing for the [##insert name of region] RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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)
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 provided for a fee (from RRC members or users that are undertaking a new project).	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
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 and support for training opportunities involves Service J (Organize Meetings and Events)

Table 5: Implementation Tasks and Timing for the [###insert name of region] RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
4.8 Hosting GIS Data and Services (P)	As described in Section 2, 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 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.

Table 5: Implementation Tasks and Timing for the [##insert name of region] RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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 4.8. 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

Table 5: Implementation Tasks and Timing for the [##insert name of region] RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
5.7 GIS 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 [##insert name of region] 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	

Table 5: Implementation Tasks and Timing for the [##insert name of region] RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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 are 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

Table 5: Implementation Tasks and Timing for the [##insert name of region] RRC (con't)

Task Number and Name	Explanation	Phase	Dependencies/Linkages
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)

5.3 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.

$$The table below gives a starting point for identification of roles and responsibilities for the RRC implementation tasks explained in Table 5. RRC planners should make any needed changes to the task list, participating parties (columns of the table) and the specific types of responsibility (L, P, or O).

Table 6: Responsibilities for RRC Development and Operation

	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 Endorses RRC Business Plan	L	P		P							
1.2 Form RRC Steering Committee				P		L		P			
1.3 Identify and Get Commitment from Host Organization(s)					O	L				P	
1.4 Prepare and Ratify Agreement with Host Organization					O	L					
1.5 Identify Services and Programs for Phase 2 Implementation						L		P		P	
1.6 Prepare Template By-Laws or Charter	O					P		P		L	
1.7 Prepare and Ratify By-Laws or Charter for RRC	O					P				L	
1.8 Dissolve Regional User Group and Notification to Constituents	O	P		L		P				L	
1.9 Assign RRC Manager		P			L						
1.10 Assign initial RRC Technical and Support Staff					O	L		P		P	
1.11 Prepare detailed budget and resources needs for Phase 2		P			O	L				P	
1.12 Prepare detailed budget and resources needs for subsequent phases						L					
1.13 Create templates, tools, and standard operating procedures (SOP) for core management practices					P	L	L				
2. FUNDING AND RESOURCE ALLOCATION											
2.1 Identify and Secure Initial Funding and Resources for Phase 2		P			P	P				L	P
2.2 Put in Place Structure and Process for Membership Fee		O				P		P		L	
2.3 Establish Administrative Structure for Managing Funding					O	L	P				
2.4 Support Approval of State Budget Request for GIS	P	L				P		P		P	
2.5 Solicit Sponsorships and In-kind donations		P				L	L		P	P	P
2.6 Establish Grant Research and Writing Function		P				L		P			
2.7 Ongoing Work in Identifying and Securing Future Funding and Resources	P	P				L				L	P
2.8 Establish volunteer program and solicit volunteer staff						L	P			P	
2.9 Establish Student Intern Program					P	L				P	

Table 6: Responsibilities for RRC Development and Operation (cont)

RRC Development Task	Responsibilities (L=Lead Role, P=Participant/Support, O=Oversight/Approval)										
	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
3. DESIGN AND ESTABLISHMENT OF PHASE 2 PROGRAMS AND SERVICES											
3.1 Directory of GIS Contacts and Professional Networking Support (A)		P	L			L	P	P		O	
3.2 GIS News of Regional Importance (B)		P	L			L	P	P		O	
3.3 GIS Project/Best Practices Catalog (D)		P	L			L	P	P		O	
3.4 Support Advocacy and Building Awareness of GIS Benefits (E)		L				P	P	P		L	
3.5 Put in place Regional Framework Steward Role (F)		L	P			L	P	P		P	
3.6 Support/ Encourage Adoption of TIM Standards and Policies (I)	O	L	P			L	P	P		O	
3.7 Organize/Host GIS Meetings and Events (J)		P			O	L	P	P		O	
3.8 Coordinate and Promote GIS Training and Education (M)		P			O	L	P	P		P	
3.9 Grant Research Application Preparation, and Administration (O)					P	L	P			O	
4. DESIGN AND ESTABLISHMENT OF PHASE 3 PROGRAMS AND SERVICES											
4.1 Support Advocacy and Building Awareness of GIS Benefits (E)		L				P	P	P		L	
4.2 Put in place Regional Framework Steward Role (F)		L	P			L	P	P		P	
4.3 GIS Data/Metadata Compilation and Update (G)		L	P			P	P	P		O	
4.4 Organize/Host GIS Meetings and Events (J)		P			O	L	P	P		O	
4.5 Prepare Project Specifications and Support GIS Services Procurement (K)	O	P	P			L	P	P	P	O	
4.6 Joint Project Negotiation and Management Support (L)	O	P	P			L	P	P	P	O	
4.7 Provide GIS Training and Education (M)		P			O	L	P	P		P	
4.8 Hosting GIS Data and Services (P)		P			P	L	P				P
4.9 Web Services, Facilitate Technology Transfer (Q)		P			P	L	P		P		

Table 6: Responsibilities for RRC Development and Operation (cont)

RRC Development Task	Responsibilities (L=Lead Role, P=Participant/Support, O=Oversight/Approval)										
	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
5. DESIGN AND ESTABLISHMENT OF PHASE 4 PROGRAMS AND SERVICES											
5.1 GIS Professional Labor Pool Management (C)	Implementation not likely in foreseeable future										
5.2 Put in place Regional Framework Steward Role (F)		L	P			L	P	P		P	
5.3 GIS Data/Metadata Compilation and Update (G)		L	P			P	P	P		O	
5.4 Prepare Project Specifications and Support GIS Services Procurement (K)	O	P	P			L	P	P	P	O	
5.5 Provide GIS Training and Education (M)		P			O	L	P	P		P	
5.6 Hosting GIS Data and Services (P)		P			P	L	P		P		P
5.7 GIS Web Services: RRC Carries out Design and Development (Q)		P			P	L	P		P		
6. PROMOTION, RECRUITMENT, EXTERNAL RELATIONS											
6.1 Design and Set-up Initial RRC Web Page		P				P	L	P			
6.2 Prepare Promotional Materials		P	P			L	P	P		P	P
6.3 Carry Out Active Promotion		L				L	L	P		P	P
6.4 Recruit Initial Members	O	P		L		P				L	
6.5 Ongoing Recruitment of Members and Associates	O	P		L		P				L	
6.6 Identify RRC members for Participation in IGC Committees and Working Groups						P		P		L	
6.7 Conduct User Satisfaction/Needs Survey						P		P		L	
6.8 Process Calls, Requests, and Receive Visitors						P	L				
6.9 Respond to Requests for RRC Services						L	P				

Table 6: Responsibilities for RRC Development and Operation (cont)

	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
7. ONGOING RRC MANAGEMENT											
7.1 On-going Staff/Personnel Management					O	L	P				
7.2 Monitor RRC Time and Finances					O	L	P				
7.3 Monitor RRC Activities and Service Delivery					O	L	P				
7.4 Prepare Detailed Management Reports	O				O	L	P				
7.5 Prepare Quarterly Status Report	O				O	L	P			P	
7.6 Schedule and Handle Logistics for RRC Events						P	L	P	P	O	
7.7 Set-up Management Structure for New Projects						L	P				
7.8 Periodic Review and Audit of RRC Operations	O					P				L	

6. FINANCING STRATEGIES AND RRC PROMOTION

6.1 Potential Funding Sources and In-kind Contributions

$$Text in this section should be revised to identify any likely or confirmed sources of funding or non-monetary support known at the time of business plan preparation.

Table 7 identifies potential sources for funding or non-monetary in-kind contributions (staff time, special services, equipment, and software) to support RRC start-up and ongoing operations. An important part of RRC implementation is to fully investigate potential sources and get commitments for RRC start-up. The companion document to this plan, "Notes on Investigations about Potential Host Organizations and Outside Support" (http://giscenter.isu.edu/research/Techpg/caprrc/pdf/RRC_HostSupportingOrganizationFinal.pdf) explains potential support and funding options and gives a starting point for exploring opportunities.

$$The table below describes potential sources for funding and tangible support which may or may not be available to a specific RRC. This table should be edited to reflect sources most applicable to a planned RRC with any available specifics about the sources, type of support, and amount of funding. See the document that accompanies this planning template that explains potential grant funding sources (http://giscenter.isu.edu/research/Techpg/caprrc/pdf/RRC_HostSupportingOrganizationFinal.pdf)

Table 7: 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?*

Table 7: Possible Sources for Funding and In-Kind Contributions (con't)

Funding/ Contribution or Source	Description
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). *$$This is considered to important source of funding but at this point, there is no certainty that funding will be approved (for FY 2012 or later years).*
Grants	Grant funding covers a full range of funding available through grant programs sponsored by state and federal agencies, non-profit/non-governmental organizations or foundation, and private sources. The Idaho GIS community has been successful in receiving and making effective use of federal funding (specifically the FGDC Cap grant program) for GIS related work. There will be continued grant funding opportunities in 2011 from the CAP program and other sources (DHS, IECC) that specifically target GIS development. But there are a large range of other grant programs, which may not specifically cite GIS but which have a major geographic component, and which, potentially, could support RRC projects and services. RRCs could play a role in grant application and administration or the RRC could be a partner in a grant application project with another lead organization (RRC member organization). *$$See accompanying document about potential grant sources, "Notes on Investigations about Potential Host Organizations and Outside Support"* (http://giscenter.isu.edu/research/Techpg/caprrc/pdf/RRC_HostSupportingOrganizationFinal.pdf)
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.
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

Table 7: Possible Sources for Funding and In-Kind Contributions (con't)

Funding/ Contribution or Source	Description
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 *$$To establish a basis for this revenue source, it would be best to establish a fee schedule, basic terms for providing services, and do promotion to investigate opportunities.*
Fees for data compilation and/or regional Framework stewardship support	Fees would apply for GIS data related work provided by the RRC. This could include data collection or compilation for member organizations (mainly low population local government jurisdictions). In addition, fees from Source Stewards could apply for work carried out by the RRC for assembling, formatting, and submittal of Source Steward Framework data updates—reducing labor required by the original Source Steward. *$$During the 2010 RRC planning project, 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. *$$This is a possibility but must take into account legal limitations on governmental sale of data products and services as well as potential conflicts of competition with private companies.*
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.

6.2 RRC Budgeting and Financing Strategy

$$This section is specific to the RRC. It should include the best available information on cost projections, budget preparation, and identification of most likely funding sources.

6.3 RRC Promotion and Marketing

RRC promotion and marketing is a core administration and management practice identified in Table 4 and Task Series 6 ("Promotion, Recruitment, and External Relations") in the Table 5 (Implementation Steps). Promotion, outreach, and expanding awareness are also important items in the State's TIM (aka "ISDI") *Business Plan* (see Implementation Initiatives under the "Education, Outreach, and Communications" category in Table 6 and Section 5.4). For this reason, RRC

promotion should be coordinated with TIM activities and events organized by the IGO, IGC and other RRCs. The objectives of a planned, organized RRC promotion campaign are: a) to increase awareness of the RRC and availability of services, b) to increase membership and level of participation by individuals and organizations, and c) to support fundraising activities. This is particularly important in Phase 1 but is a continuing activity in all phases.

Marketing and promotional activities should use a variety of communication media and channels and should be developed with a clear idea of the message to be delivered and the recipient groups to which the message is being directed (the specific public, private, academic, and non-profit organizations that are potential RRC participants). RRC implementation activities in Task Series 6 (see Table 5) are supported by a number of promotional and outreach approaches and media types including:

- Presentations and briefings at events (GIS conferences, agency meetings, meetings and events sponsored by professional and trade organizations).
- Web page content that explains RRC goals and services and which solicits participation and feedback (including on-line member registration).
- Preparation of "advertising" materials (flyers, brochures) which can be distributed in digital or electronic form.
- Email broadcasts (via the Geotech Listserv or other group message distribution) which provide news and solicits participation.
- Distribution of publications prepared by RRC members.
- Press/Media Releases highlighting RRC projects and accomplishments.

IDAHO GIS REGIONAL RESOURCE CENTER DEVELOPMENT AND OPERATION

Notes on Investigations about Potential Host Organizations and External Support

This document accompanies the RRC Business Plan including the Final Business Plan prepared for the East Region and the RRC Business Plan Guidelines to be used by other regions in support of RRC business plan preparation. This document includes notes and recommendations regarding decisions on host organizations (specifically for the Eastern and Southeast regions) and the support roles that might be played by existing external organizations.

Prepared by

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1. INTRODUCTION

This document summarizes investigations, conducted by the project consultants, on the potential role that might be played by outside organizations in RRC development and operations—with a focus on the Eastern and Southeast regions. Communications with the following external organizations were conducted in order to identify potential support and/or options for RRC hosts:

- ISU GIS Center
- University Place
- University of Idaho Extension Program
- Idaho National Laboratories (INL)
- Economic Development Associations
- LinkIDAHO (alliance of companies providing support for Idaho's broadband planning and development effort)

In addition, the consultants conducted research about possible funding support through grant awards.

This information presented in this document is meant to provide a basis for further discussions and negotiations with a goal of confirming support, funding, and host organization commitments.

Note: This document provides summary information. Detailed notes compiled from telephone and in-person interviews and email communications with these organizations are available from Croswell-Schulte IT Consultants.

2. POTENTIAL HOST OR SUPPORTING ORGANIZATIONS

The RRC Business Plan explains the recommendation for placing RRC operations inside an existing organization whose current mission is compatible with the planned RRC services and programs.

Organization: Idaho State University (ISU) GIS Training and Research Center (GIS TreC)
Location: Pocatello
RRC Region Applicability: Host organization for the proposed East Idaho RRC (combination of the previously proposed Eastern and Southeast Region RRCs).
Contact Information: Keith Weber, GIS TreC Director, webekeit@isu.edu, (208) 282-2757
Description/Recommendations: The stated mission of the ISU GIS Center and its ongoing activities are compatible with planned RRC services and roles. There is an inherent synergy between these two groups that provide a basis for mutual support and joint delivery of RRC services. From an administrative or legal standpoint it would not be a complex matter to assign RRC functions to the GIS Center and to assign the RRC management role to the GIS Center Director. While some existing GIS Center resources could be used for RRC development and operations (use of space and facilities, minimal staff time), full RRC implementation and operations would require additional funding.

Organization: Idaho State University – Idaho Falls (through ISU-Department of Geosciences)
Location: Idaho Falls
RRC Region Applicability: Support and secondary location for meetings and project support for the proposed East Idaho RRC (combination of the previously proposed Eastern and Southeast Region RRCs).
Contact Information: Daniel P. Ames, PhD and Associate Professor, dan.ames@isu.edu, (208) 533-8141
Description/Recommendations: Idaho State University supports a large student body and associated faculty at University Place in Idaho Falls. University Place is a collaboration of multiple universities including ISU, Eastern Idaho Technical College and the Idaho Falls branches of the University of Idaho (UI) and Boise State University (BSU). Several coordinating bodies oversee and support University Place (UP) operations (UP Oversight Committee, UP Local Operations Committee, Idaho Falls Higher Education Advisory Council). The ISU Geosciences program has offered a basic level of support for Eastern Region RRC operations which include use of office/meeting space, access to computer server and GIS software, and a minimal amount of staff support. This would provide an environment for initial RRC development. No exploration of RRC support through other branch universities at University Place has been carried out. As is the case with ISU-Pocatello full RRC implementation and operation would require additional funding. An additional concern is posed by the fact that academic programs are discontinued during the summer so facility access may be limited. ISU Geosciences maintains a 16 person GIS computer laboratory in the CHE building at University Place. This facility is scheduled and managed by Geosciences, and hence is likely to be readily accessible and usable through both the academic and summer months. This computer classroom is also equipped distance learning and web conferencing equipment allowing direct connections with the GIS Center at Pocatello which will allow for classes and seminars in either location to be shared with the other location.

Potential host organization options for the other regions have been originally identified in the submitted RRC proposals (Northern, North Central, and Southeast regions) and partially investigated by consultants. These options are summarized below.

Northern Region: A proposal has been submitted for RRC development for this region which includes the northern 5 counties of the Idaho panhandle. The proposal calls for the Panhandle Area Council (one of the state's economic development organizations) to play a lead role in managing and operating RRC operations for this region. In addition, the proposal includes general observations about support and coordination with the University of Idaho Extension Program. From a standpoint of organizational mission, there is considerable compatibility between proposed RRC activities and services and the Council's programs. The Council is not in a position to provide significant resources for RRC development and operation so outside funding would be required.

North Central Region: The proposal for a North Central RRC (covering Clearwater, Idaho, Lewis, Nez Perce, and Latah counties) cites a number of potential partner organizations providing a physical location and facilities. These organizations include the CDA Tribe and existing University of Idaho (Moscow) programs (INSIDE Idaho and the Extension). These options have not been fully explored but the ongoing role played by INSIDE Idaho (U of I Library) would be consistent with many of the proposed RRC services and programs. However, outside funding would be required for the INSIDE Idaho program to support RRC operations. Management personnel of the U of I Extension have expressed interest in the TIM Program. While U of I Extension is not currently involved in GIS related services, their mission of education, outreach, and technology transfer fits in well with the RRC objectives. With offices in 42 of Idaho's 44 counties and its 13 Regional Research and Extension Centers, there is an established infrastructure for communication with local jurisdictions. To play a role in RRC development and operation would likely require additional funding for addition of staff with the required GIS expertise.

Southwest Region: The proposal for a Southwest Idaho RRC identifies an initial 18-county area with the possibility of dividing the region into two regions (splitting off the 8 easterly counties to form a South Central Idaho RRC). No specific site for a physical location or a host organization has been identified and in

fact, the proposal suggests that initially, there may not be a need for a physical location (as opposed to an effective Web-based presence. There is a mention of a support role played by Sage Community Resources, the non-profit economic development organizations serving a 10-county area in Southwest Idaho and Sage has expressed interest. The proposal also identifies potential coordination with the Ada County Highway District and the potential to use facilities of state or local government agencies and Boise State University for meetings and events.

3. POTENTIAL SUPPORT FROM EXTERNAL ORGANIZATIONS

RRC business planning consultants examined the roles that could be played by several external organizations in providing support for RRC development and operations. A summary of investigations with the following organizations is included in the following:

Organization: University of Idaho Extension
RRC Region Applicability: Greatest opportunity for the Northern and North Central regions (through U of I locations in Moscow and Coeur d'Alene) but potentially all RRC regions could benefit from a future GIS role by U of I Extension.
Contact Information: • Charlotte Eberlein, Director of Extension Services, Twin Falls, (208) 736-3607, ceberl@uidaho.edu • Paul McCawley, Associate Director, U of I Moscow, (208) 885-5883, mccawley@uidaho.edu • Michael Howell, District Director (Northern District-Coeur d'Alene), (208) 292-2522, mhowell@uidaho.edu • Main Web Site: www.extension.uidaho.edu
Description/Recommendations: The University of Idaho Extension Program carries out research, education, and a range of outreach activities with organizations and individuals throughout Idaho with a focus on agricultural practices, home and garden, natural resource management, and other community programs. U of I Extension is part of the U of I College of Agriculture and Life Sciences. Extension faculty (Extension Educators) are located in 42 of the state's 44 counties. In addition, subject matter specialists (Extension Specialists) and support personnel are located in thirteen regional Research and Extension Centers and on the UI main campus. These faculty members conduct extension education programs throughout the state. Extension personnel regularly work together with individuals and organizations throughout Idaho and, for this reason, they support an existing network of organizations and collaborative activities which are consistent with RRC goals. While Extension is not currently providing GIS education or support to local jurisdictions and organizations, the existing mission and the established network could be leveraged for this purpose—in coordination with RRCs and GIS stakeholder organizations. Extension personnel have expressed an interest in this role and positive discussions with University administration reflect overall support for a future GIS role. Consistent with the Extension's education and outreach mission, it could provide support in GIS education and technology transfer to smaller local government jurisdictions in RRC regions. There has been discussion about including one or more "Geospatial Extension Specialist" positions to provide GIS support but this would require additional funding. There are opportunities for use of Extension facilities for RRC meetings or project work. Extension Program offices exist at different locations around the state and these vary in terms of space availability and facilities but they may be used for RRC functions providing arrangements are made in advance of a meeting or event.

Organization: Idaho National Laboratory (INL)

RRC Region Applicability:

Most applicable for East Idaho Region given INL's location in Idaho Falls but coordination/support with other regions may be possible.

Contact Information:

Jennifer Jorge, PhD, Manager of Environmental Stewardship and Water Management, (208) 526-7208, Jennifer.jorge@inl.gov

Description/Recommendations:

In operation since 1949, INL (see www.inl.gov) is a science-based, applied engineering national laboratory dedicated to supporting the U.S. Department of Energy's missions in nuclear and energy research, science, and national defense. Research, support, and education programs include a wide range of natural resource, environmental, health, and safety topics. INL takes part in education, outreach, and technology transfer with public and private organizations inside and outside Idaho. INL uses GIS technology and data is used extensively to support its programs and for this reason, INL should be engaged as a participant in the TIM program.

Contact with Dr. Jorge confirms INL's interest in Idaho's TIM Program. More specifically, three avenues for INL involvement and support for RRC development and operation:

- Assistance and involvement in support of RRC development by Dr. Jorge as availability permits (taking into account existing commitments to INL programs)
- Limited "consulting support" (up to 40 hours) as part of INL's "Regional Assistance Program"
- One time grant of up to $10,000 to support regional activities

The potential support listed above would need to be explored further, with Dr. Jorge, to confirm commitment from and to make arrangements with INL.

Organization: Economic Development Associations

RRC Region Applicability:

Potentially all RRC regions.

Contact Information:

- Wendi Secrist, President, Idaho Economic Development Association, (208) 340-0908, wendisecrist@gmail.com
- Jana Chalfant, Director of Economic Development Services, Boise Valley Economic Partnership, (208) 472-5246, jchalfant@bvep.org
- Jenn Atkinson, Development Services Program Manager, Sage Community Resources, jatkinson@sageidaho.com, (208) 322-7033
- Pat Engle, Director of Business and Community Development, Sage Community Resources, pengel@sageidaho.com, (208) 322-7033

Description/Recommendations:

The Idaho Economic Development Association (EDA) is a non-profit umbrella organization coordinating regional economic development groups in six areas statewide (Northern, North Central, Southwest, Central, South Central, Southeast, Eastern (see www.ieda.biz). Its stated purpose is *"….to enhance and elevate the practice of economic development and to promote sustainable business growth for Idaho's economic vitality and increased standard of living."* Members include municipalities, county governments, non-profit community organizations, utilities, private sector companies, and county or regional economic development organizations. Their funding is often from member dues and their personnel resources vary, depending on the size of the organization and their regional memberships. Individual grants funding is also used, usually specifically targeted at their economic development mission or job creation and often includes grants from the federal and state governments. Some of the six EDA districts include a regional organization that coordinates economic development activities (e.g., Sage Community Resources in the Southwest district, Southern Idaho Economic Development Organization in the South Central district).

The mission of the EDA and the participants in the statewide districts is compatible with the TIM program and RRC goals to enhance GIS data and services for regional stakeholders and increase access to GIS technology and data. Many EDA organizations already use GIS technology and provide outreach and support to business and local government jurisdictions. Grants provide primary support for EDA projects and activities and there is generally not a sustained funding source that could be provided directly to RRC development and operations. However, EDA organizations should be considered RRC partners since there are opportunities for in-kind support and collaboration in projects that require GIS technology and data. Sage Community Resources (the EDA in Southwest Idaho) has considered a possible role as a host for a Southwest Idaho RRC and is interested in exploring this further.

Organization: LinkIDAHO Initiative

RRC Region Applicability:

Potential support for all RRC regions.

Contact Information:

- Matthew Mitchell, Project Manager, VisionTech360, (509) 994-6832, matt@visiontech360.com
- Karen Manuel, EdLab Group, kmanuel@edlabgroup.org

Description/Recommendations:

The LinkIDAHO initiative is part of a 4-state "LinkAMERICA Alliance" which is a partnership of several companies working with governmental jurisdictions and other organizations to support Broadband planning, mapping, and development. This initiative is supported by grants from the National Telecommunications and Information Administration (NTIA) Broadband Technology Opportunities Program (BTOP) which has the goal of expanding high-speed digital access and adoption throughout the state. The LinkIDAHO team works closely with the Idaho Office of the CIO and the state's Geospatial Information Officer. An Advisory Committee which includes a number of government, university, private, and non-profit organizations has been created to support the project. Idaho is awaiting word on approval of a grant application submitted in July, 2010 to provide funding to continue broadband planning and mapping.

The broadband planning and mapping work relies significantly on GIS data and collaboration with regional bodies and local jurisdictions. Currently, the LinkIDAHO team is in the process of engaging state and local partners to support the work. The approach and status of the broadband planning and mapping is consistent and complementary with RRC development. Direct discussions have been conducted with LinkIDAHO project personnel and they have expressed interest in working with regional GIS user groups and RRCs to support the broadband planning and mapping work and associated outreach with local governments and other organizations in the RRC regions. A potential working relationship would make use of existing professional networks (local governments, universities, private firms, non-profit organizations) supported through the regional GIS user groups and, in the future, the RRCs.

4. GRANT FUNDING POSSIBILITIES

4.1 Overview of Grants

RRC business planning consultants conducted research on the potential for funding through grants offered through government programs, non-profit foundations, and private companies. This section provides a summary of findings which gives a starting point for additional investigations by those involved in RRC development. The consultants believe that grants should be considered important funding sources for RRC development and project activity. It must be understood that grants have the following limitations and resource commitments:

- Staff time must be devoted to researching and identifying grant opportunities that might provide RRC support
- Grant applications take management and staff time to prepare and there is no guarantee that funding will be approved
- Some grants have match requirements (monetary or in-kind resources) that must be committed by the grantee organization
- Grant application approvals include specific terms for use of funds and requirements for monitoring and reporting progress

As explained in the Business Plan, grant funding may provide support for RRC development and operation under two different circumstances:

- Some grant programs may direct funds specifically at GIS programs and would be administered specifically for RRC development (e.g., the current FGDC Cap Grant used for the RRC business planning). In these cases, the RRC (or its host organization) would be the principle grantee.
- Some grant programs may target specific projects and goals with funding not specifically for GIS but may require GIS data and technology. In these cases, an RRC may play a participant role on a project team but would not be the primary grantee organization. This category provides opportunities for RRC participation on grant projects which may not directly mention GIS but which may benefit from GIS data and technology and which may contribute to RRC operations. In these cases, an RRC may identify a grant opportunity and lead grantee organization and provide support in the grant application.

4.2 Grant Types

Grant opportunities for RRCs can be categorized in two different manners, either by the participatory role a RRC may play in the process – whether the RRC would be the Principal grantee or a Partner in the grant process, and by the type of grant – whether it is a Formula Grant (a grant specifying a precise formula in the legislation creating the program) or a Project Grant (typically grants given by the government or private foundations to fund specific projects, such as research or development projects). The participatory roles are inherently different, as are the types of grants. Because of this they lead to widely differing types of grant opportunities. Conversely, the participatory role of the RRC can be different based upon whether the grant in question is a formula grant or a project grant. It should be noted that the distinction between being a principal and partnering in a grant opportunity can vary by type of grant or program and as well, ancillary activities such as grant application, administration and management are variably subsumed within each.

4.3 The Principal Grantee Role

Grants that are directly related to geospatial activities (such as building and maintaining geospatial data sets or initiatives that implement standards or increase the sharing of geospatial data) imply that the RRC's role would primarily be the performance of the project or grant and therefore be the principal grantee. RRC member organizations and/or employees of the RRC will perform specific functions (primarily mapping-related) in the performance of grants such as these. However, without a grant partner the RRC (its employees or member organizations' resources) would also be responsible for the application and administration of the grant as well as the management of the work. A good example of this are grants such as those that are offered as part of the National Spatial Data Infrastructure (NSDI) through the Federal Geographic Data Committee – CAP (Cooperative Agreements Program) Grants. These grants are part of an annual program to assist the geospatial data community through funding and other resources in implementing the components of the NSDI.

4.4 The Partnering Role

This type of role opens up a very large number of grant opportunities for RRCs that they would otherwise be ineligible for and allows for a much larger role to be played by the RRC within its region. When a RRC commits to a partnership role with another institution (presumably a RRC member, governmental entity or private foundation with interests in its region) the categories of grants available are much greater due to the fact that the interests of the partner are usually primary and do not necessarily have to be geospatial in nature, but they may have a secondary or supporting geospatial aspect to them which the RRC would be responsible for. However, in these circumstances the RRC's responsibilities, with respect to grant application, administration or management, can also vary widely, possibly taking on one or more of these responsibilities while also providing work in performance of the grant.

4.5 Formula Grants

Formula grants provide funds to state or local governments as dictated by legislation according to a distribution formula described in federal statute. Though they're generally perceived as having a broad range of activities, some have narrow purposes. They usually fund on-going activities rather than specific projects. The distribution formulas use different variables from a particular region, such as the number of low-income families or the number of disabled persons, etc. There are two types of formula grants that a RRC may be eligible for, Categorical and Block grants. Categorical grants are designed to focus on narrowly defined purposes and recipients must often match a portion of the federal funds that are disbursed. About a third of categorical grants are considered to be formula grants. Categorical grants account for about 90% of federal aid dollars.

Block grants combine categorical grants into a single program. Eligible block grant activities cover a broad range of activities. They typically address general problem areas, rather than specific ones. When Congress creates a block grant program it often consolidates a number of categorical programs into one larger program. For example, Community Development Block Grants and Social Services Block Grants are funds allocated to local and state governments on a formula basis. Recipients of block grants have more leeway in identifying the problem they want to address and designing programs to address the problem than recipients of individual categorical grants do. All block grants are considered to be formula grants.

4.6 Project Grants

Project grants are given by the government, private foundations, corporations and individuals to fund specific projects for known periods or the delivery of specific services over a fixed period of time. Project grants can include fellowships, scholarships, research grants, training grants, traineeships, experimental and demonstration grants, evaluation grants, planning grants, technical assistance grants, survey grants, and construction grants, for example. Federal project grants are frequently referred to as discretionary grants and generally, the application is lengthy and there is usually an audit process after the project is completed. The normal duration for federal project grants is three years. The eligibility requirements,

program definition and grant periods, among others, vary greatly for privately funded project grants, but like federal project grants they are usually for funding specific projects or the delivery of specific services over a fixed period of time.

4.7 Synopsis

Examples of individual grants and grant programs that RRCs may be eligible for are listed in the provided table. They include both formula and project grant programs and represent activities where a RRC may play the role of either the principal grantee or a partner in a grant funding opportunity. Many more grants are available that RRCs would be ineligible for than eligible for. These have not been listed. The list is not meant to be comprehensive, but it represents a starting point for RRCs to pursue further research in acquiring funding and resources via grants from both the public and private sector. The list was compiled from publicly available sources on the internet and from conversations with personnel at organizations such as Sage Community Resources, the Idaho Economic Development Association and the Idaho Department of Commerce. Preference was given to grants and programs funding activities that a RRC would be eligible for, either as a primary grantee or as a partner with another eligible agency or potential RRC member with interests where a RRC could provide a geospatial component.

These examples can be supplemented by further research on private foundations and trusts – which are frequently non-published and require more physical research to identify, determine eligibility for. For example, personnel at the Idaho Department of Commerce provided the list of private foundations and trusts in Addendum X. This list was compiled from their research at the Boise Public Library's Main Library Funding Information Center (FIC). The FIC offers a special collection of reference and circulating materials to assist non-profit and community-based organizations looking for funding and grant opportunities, with a specific emphasis on private foundation and government assistance for non-profit organizations.

In summary, there are many opportunities for funding and resourcing RRCs via both public and private grants. Though finding eligible grants can be difficult and the process of applying for and administering many of these grants or programs can be complex, they represent serious funding/resourcing prospects that should be followed up on by each individual RRC during the first phase of its business plan.

4.8 Potential Grant Opportunities

Project consultants conducted research about specific grant opportunities that might be used to support RRC activities. This research included discussions with the Idaho Department of Commerce which can be of assistance in identifying and pursuing specific grants for TIM and for RRC development and operation. Specifically, the following individual who is familiar with TIM can provide support:

> Jerry Miller, Business Development Specialist
> Economic Development Division
> Idaho Department of Commerce
> 700 West State St.
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> (208) 334-2650 x2143
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Many of the potential grant opportunities are administrated by federal agencies. The www.Grants.gov, maintained by the Grants Policy Committee of the federal Chief Financial Officers (CFO) Council provides a search capability to find information on current grant opportunities with links to agency Web sites providing details. In order to apply for a grant through Grants.gov, there is a required registration process.

Potential grant programs for additional investigation include the following:

- USGS Federal Assistance Program (www.usgs.gov/contracts/grants): The U.S. Geological Survey manages a grant program that includes various mapping and GIS database development categories. **More

- NSDI Cooperative Agreements Program (CAP): This grant program provides funding for different types of projects that support the FGDC's development of the National Spatial Data Infrastructure (see www.fgdc.gov/grants). Specific grant opportunities for FY 2011 were posted in mid-October, 2010 and grant application submittals are due by January 6, 2011. TIM leaders should be ready to prepare grant applications for applicable projects supporting TIM and RRC development. CAP categories include the following:
  - Category 1: Metadata Trainer and Outreach Assistance
  - Category 2: FGDC-endorsed Standards Implementation Training and Outreach
  - Category 3: Fifty States Initiative: Strategic and Business Plan Development
  - Category 4: Fifty States Initiative: Business Plan Development and Implementation
  - Category 5: Return on Investment (ROI) Methodology and Business Case Development for Multi-agency NSDI Projects
  - Category 6: FGDC Standards Development Assistance

- Broadband Technologies Opportunities Program (BTOP): This grant program, administered by the Federal Department of Commerce, National Telecommunications Infrastructure Administration (NTIA) involves the use of GIS technology and data for broadband planning and mapping. Project is work is ongoing now in Idaho. See Section 2 above for more information about potential RRC involvement.

- Homeland Security Grant Program (HSGP): The HSGP (see www.fema.gov/government/grant/hsgp) suite consists of five sub-programs, namely the State Homeland Security Program (SHSP), Urban Areas Security Initiative (UASI), Operation Stonegarden (OPSG), Metropolitan Medical Response System (MMRS), and Citizen Corps Program (CCP). Some of the funding for these programs may support GIS development work. Opportunities for use of these funds to support RRC development and operation should be explored through the state's GIO and Bureau of Homeland Security.

- Idaho Emergency Communication Commission (IECC) Grants for Enhancement of Emergency Communications (see www.e911.idaho.gov/rules.htm): This grant program is primarily funded through mandatory and non-mandatory telephone service fees collected by local jurisdictions. Eligible agencies (as defined in Idaho Code 31-4819(e)) include local public safety organizations (law enforcement, fire, emergency medical) and the specific public safety answering points (PSAPs) that take calls and dispatch resources in response to emergency incidents. The grant program provides funds for improvement of emergency systems and incident response including such categories as communications equipment, computer hardware and software, database development, training, and the management and support costs associated with implementing these improvements. The allowable scope for grant applications encompasses GIS data, software, applications, and related implementation services. RRCs could play a role of assistance in grant application on behalf of local governments in their region, preparation of technical specifications for allowable GIS procurements, and technical implementation management or oversight.

- FEMA Cooperating Technical Partners (CTP) Program: The CTP is FEMA's program for engaging partners for flood hazard map modernization as part of the National Flood Insurance Program (NFIP). Partners may include regional agencies, State agencies, tribes, and universities that have

the interest and capability to become more active participants in the FEMA flood hazard mapping program. (see www.fema.gov/plan/prevent/fhm/ctp_main.shtm)

- U.S. Environmental Protection Agency Grant Programs: The EPA supports a number of grant programs that potential could involve GIS data and technology (see www.epa.gov/epahome/grants.htm):
  - Community Action for a Renewed Environment (CARE): provides funding to build broad-based partnerships to reduce environmental risks at the local level.
  - Environmental education: projects to help the public make informed decisions that affect environmental quality.
  - Environmental Information Exchange Network: provides funding to develop an Internet---based, secure network that supports the electronic collection, exchange, and integration of high-quality data.
  - Programs across the country to improve air quality and protect public health.
  - Pollution Prevention: provides matching funds to state and tribal programs to support pollution prevention and to develop State-based programs.
  - State Innovation Grant Program: provides funds and technical assistance to state environmental agencies to promote testing of innovative approaches in environmental permitting for better results and efficiency.
  - Science to Achieve Results (STAR): funds research grants in numerous environmental science and engineering disciplines through a competitive solicitation process and independent peer review.
  - Water Grants: includes the state revolving funds for drinking water and wastewater, grants for water pollution prevention and wetlands protection, and tribal grants.

- National Science Foundation (NSF) Experimental Program to Stimulate Competitive Research (EPSCoR): This source has been used already by for upgrade of INSIDE Idaho facilities. Grant funding opportunities are organized by topic some of which focus on areas that might support GIS programs and RRC development. See www.nsf.gov/funding.

- U.S. Department of Agriculture—Agriculture and Food Research Initiative (AFRI) Grant Program (see www.csrees.usda.gov/fo/agriculturalandfoodresearchinitiativeafri.cfm): AFRI is NIFA's flagship competitive grant program and was established under section 7406 of the Food, Conservation, and Energy Act of 2008 (the 2008 Farm Bill). AFRI supports work in six priority areas: plant health and production and plant products; animal health and production and animal products; food safety, nutrition, and health; renewable energy, natural resources, and environment; agriculture systems and technology; and agriculture economics and rural communities. In FY 2010, AFRI solicits applications through seven RFAs. One RFA calls for research projects addressing the above six priority areas. Additional RFAs further address AFRI priority areas in five societal challenge areas. The five challenge area RFAs are: Childhood Obesity Prevention; Climate Change; Food Safety; Global Food Security; and Sustainable Bioenergy. In any given Fiscal Year, there is the potential for the use of GIS technology and data in connection with grant supported research and program support. For instance, GIS could play a role in many AFRI grant categories such as watershed management, air quality, sustainable ecosystems, agricultural practices, operation of USDA assistance programs (e.g., Food Stamps, WIC), rural economic development, and other program areas can be supported.

- U.S. Department of Agriculture—Conservation Innovation Grants: Grants that support on-the-ground conservation technologies and approaches, with the eventual goal of wide-scale adoption to address water quality and quantity, air quality, energy conservation, and environmental markets, among other natural resource issues. See www.nrcs.usda.gov/technical/cig/index.html.
- Public Health Program Research and Enhancement: The Department of Health and Human Services has a significant grant program, administered through its various agencies (e.g. Centers for Disease Control Prevention, Health Resources & Services Administration, and National Institutes of Health). In some cases, funding for projects in the areas of environmental public health, improvement of public health services, epidemiology, emergency incident planning and management may be supported by GIS technology and database development in which RRCs could play a role. The www.grants.gov site provides information on these grant opportunities (select "Browse by Agency" and then select "Department of Health and Human Services").
- ESRI Conservation Program: The GIS software and services company, ERSI, provides free or low cost software and support services for non-profit organizations involved in conservation work (e.g., natural resources, historic preservation). See www.conservationgis.org. RRCs may play a role in assisting non-profit organizations in getting access to and using ESRI software and services.