# 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.

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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) |
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| Location: Pocatello |
| RRC Region Applicability:<br>Host organization for the proposed East Idaho RRC (combination of the previously proposed Eastern and Southeast Region RRCs). |
| Contact Information:<br>Keith Weber, GIS TreC Director, webekeit@isu.edu, (208) 282-2757 |
| Description/Recommendations:<br>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. |

<table>
<tr><td><b><u>Organization</u></b>: Idaho State University – Idaho Falls (through ISU-Department of  Geosciences)</td></tr>
<tr><td><u>Location</u>: Idaho Falls</td></tr>
<tr><td><u>RRC Region Applicability</u>:<br><br>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).</td></tr>
<tr><td><u>Contact Information</u>:<br><br>Daniel P. Ames, PhD and Associate Professor, <u>dan.ames@isu.edu</u>, (208) 533-8141</td></tr>
<tr><td><u>Description/Recommendations</u>:<br><br>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.</td></tr>
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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.

<u>Northern Region</u>: 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.

<u>North Central Region</u>: 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.

<u>Southwest Region</u>: 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:

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| **Organization**: University of Idaho Extension |
| RRC Region Applicability:<br><br>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:<br><br>• Charlotte Eberlein, Director of Extension Services, Twin Falls, (208) 736-3607, ceberl@uidaho.edu<br>• Paul McCawley, Associate Director, U of I Moscow, (208) 885-5883, mccawley@uidaho.edu<br>• Michael Howell, District Director (Northern District-Coeur d'Alene), (208) 292-2522, mhowell@uidaho.edu<br>• Main Web Site: www.extension.uidaho.edu |
| Description/Recommendations:<br><br>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.<br><br>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.<br><br>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 |
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| RRC Region Applicability: <br> Potential support for all RRC regions. |
| Contact Information: <br> • Matthew Mitchell, Project Manager, VisionTech360, (509) 994-6832, matt@visiontech360.com <br> • Karen Manuel, EdLab Group, kmanuel@edlabgroup.org |
| Description/Recommendations: <br><br> 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. <br><br> 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.
> Boise, ID 83720
> (208) 334-2650 x2143
> jerry.miller@commerce.idaho.gov

Many of the potential grant opportunities are administered 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>U.S. Environmental Protection Agency Grant Programs</u>: 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.