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# Final report The South Carolina GeoPortal

**Agreement Number: 05HQAGO121**

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SC Budget and Control Board  
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In writing the report keep in mind the goals of your project under this category: *the development of new or strengthening of existing multi-organizational collaboration that supports the development and maintenance of shared digital geographic resources, and to foster the establishment of cross-organizational coordinating councils that develop and advance the NSDI within a specific geographic area.*

## Summary: Project Activities

**Summarize the project activities.**

Our most accurate geospatial data are developed and maintained at the local level and it is our belief that statewide coordination must begin there with a focus on empowering and involving geospatial analysts at local government level.

We stated in our NSDI CAPs proposal that we believed that the most effective way to do that would be to focus our efforts on developing a central portal that would provide a single point of access to geospatial assets throughout South Carolina and that we believed that such a portal would create a mechanism that might help motivate local and state agencies to maintain the datasets for which they have specific responsibility in accordance with FGDC/NSDI standards and make them available to *The National Map*.

We said in our proposal that if we could ***maintain a focus on the data itself***; provide training in accordance with the FGDC Metadata Core Curriculum, allocate responsibilities for stewardship of the data; and ***create a central geospatial portal to provide access to that data***, we would move South Carolina steps closer to statewide coordination of its geospatial assets and to full participation in *The National Map*.

We have created PHASE ONE of the SC GeoPortal as promised and are beginning work on PHASE TWO.

### SC GeoPortal-PHASE ONE at is now live on the Internet at

<http://www.scgis.gov>

The primary focus of our project to date has been on the creation of a central gateway to geospatial information throughout South Carolina. PHASE ONE is now a reality. PHASE TWO, which will ultimately emulate the projected functionality of GOS 2, The National Map, and NC OneMap is now underway. However, PHASE ONE is enabling citizens, businesses, and geospatial analysts at local, state, and federal levels to find existing geospatial resources within the borders of South Carolina through a single, central, geospatial gateway.

In our NSDI CAPs grant proposal we indicated that we planned to bring the portal up concurrently in two parallel versions. PHASE ONE has had the limited objective of simply identifying and providing links to the URL's of existing geospatial clearinghouses at local, state, and federal levels and providing links to the sites "as is" without requiring adherence to standards. PHASE ONE of the SC GeoPortal went public in two presentations at the 2006 SC GIS Conference in Charleston in January of 2006. It remains in ongoing development at <http://www.scgis.gov>.

## SC GeoPortal

### Gateway to South Carolina's Geospatial Assets

#### Mission

1. The **primary function** of the SC GeoPortal is to provide a central gateway to repositories of geospatial assets maintained in local, state, and federal agencies...and in the private sector.
2. A **second function** is to showcase geospatially-enabled applications that demonstrate the power of geotechnology and to identify situation-specific toolboxes of geospatial applications and equipment.
3. A **third function** is to support forums for sharing information within our network of geospatial analysts so that we may discover solutions to common problems.
4. A **fourth function**, following the lead of GeoSpatial OneStop, is to promote a marketplace where GIS developers and vendors will have a place where they can information about their products and services with potential clients.

#### SC GeoPortal-PHASE ONE at <http://www.scgis.gov>

PHASE ONE of the SC GeoPortal has been developed using an open source web development tool developed by Patrick Michaud in Corpus Christi, Texas called **pmWiki** <<http://www.pmwiki.org/>>. The use of pmWiki is free. Paul Lewis, Documents Librarian at the University of South Carolina in Aiken, South Carolina, has provided mentoring support in the use of pmWiki since November of 2005 at no cost to the project. The portal itself is supported by a commercial web hosting service, BlueHost.Com <<http://www.bluehost.com>> which provides 15 gigabytes of storage, support for up to 6 domain names, and 24/7 technical support at a cost of \$6.95 per month. The project director paid BlueHost.Com for a two year subscription with his personal check, again with no cost to the project. Recently, we added interactive functionality to the GeoPortal using a second open source application called phpBB <<http://www.phpBB.com>>. This is the forum software that the SC Government Webmasters organization has adopted to support their own communications. The use of phpBB is also free.

PHASE ONE of the SC GeoPortal is a central gateway to geographic information in South Carolina, providing links to existing geospatial repositories in counties, municipalities, regional councils of government, state agencies, federal agencies, and the private sector (Geospatial Assets). It provides contact information for state, regional, and local users groups. (The Network) It provides information about ESRI and immediate access to the state ESRI state contract, about ESRI's twelve SC business partners, about TeleAtlas and immediate access to the state TeleAtlas contract, and information about other GIS vendors and developers (The Market Place). It supports announcements about upcoming events, requests for survey participation, and other information about GIS in SC (The Bulletin Board). It provides access to GIS-Enabled applications of value to private citizens and businesses (Geospatial applications and The Toolbox). And it maintains an archive of articles and powerpoint presentations about GIS (The Library). Finally, it supports both public and private interactive discussion groups using **phpBB** (The Forum). What Phase One of the SC GeoPortal does not do is allow visitors or gis analysts to download and share geospatial data. That will be the function of **Phase Two** of the SC GeoPortal.

**SC GeoPortal-PHASE TWO is under development at  
<<http://www.scgis.gov>>**

PHASE TWO of the SC GeoPortal will require local and state agencies to adhere to FGDC/NSDI standards and compliance with the metadata required for registration on The National Map before a site will be listed SEE: <<http://www.fgdc.gov/standards/standards.html>> .

Because PHASE ONE of the SC GeoPortal was developed using free open source development tools and because Paul Lewis at USC-Aiken has refused any payment for the support he has provided as a mentor, we have obtained permission to use the \$9,000 budgeted for technical support to contract with Mike Buswell at EROS to provide the technical support and direction our cataloging team will need to build a state viewer and begin the development of a seamless, statewide database of geospatial information.

EROS was instrumental in the creation of NC OneMap and has deep expertise in the construction of portals at state and national level. In addition, EROS will host our South Carolina geospatial information at no additional charge, "for the foreseeable future." Having EROS host our data eliminates the politics that would inevitably surface at state agency level regarding the most appropriate location for our state basemap. Because they have offered to host our data at no additional cost, it will mean that our efforts at creating a shared geospatial database for South Carolina will be affordable, and that the funding provided by our NSDI CAPs partnership grant, combined with the voluntary assistance of the partners in our pilot project, should pay for most or all the early stages of what will be a prolonged effort to create a voluntary, coordinated database of shared geospatial assets throughout South Carolina.

We have enlisted the voluntary support of geospatial analysts in Aiken County, Lexington County, Columbia City, York County/Rock Hill, the SC Department of Health and Environmental Control, the Department of Natural Resources, the Office of Research and Statistical Services, and the CIO.

Leadership for PHASE TWO of the GeoPortal is being ably provided by Gary Merrill , our state liaison and partner for USGS/GOS/National Map. Earlier in the year, he was instrumental in securing three days of training conducted by staff members from the USGS Mapping Office in Rolla. Because the USGS mapping offices there are closing and most of the staff are looking for employment elsewhere, the viability of continuing to work with the capable staff at Rolla was in question and has resulted in a delay in moving forward with PHASE TWO as planned.

Fortunately, Gary met Mike Buswell at the last NSGIC meeting and has succeeded in negotiating an affordable statement of work from him. With permission from Kathy Covert to use the \$9,000 we had budgeted for technical services for PHASE ONE of the geoportal to negotiate a contract with EROS. We anticipate having an orientation from EROS in July, August, or early September of 2006 with work on PHASE TWO of the geoportal to be ongoing throughout the year.

The complexity of what we are about has not been underestimated. SEE Appendix A.

|||||**ABOUT EROS:**

The Earth Resources Observation Systems (EROS) Data Center (EDC) is a data management, systems development, and research field center for the U.S. Geological Survey's (USGS) National Mapping Division. Organizationally, the USGS is a bureau of the U.S. Department of the Interior. The EDC opened in the early 1970's with a handful of employees and the largest mainframe computer in the State of South Dakota. Today the EDC has approximately 600 government and contractor employees, including employees at its Alaska Field Office in Anchorage, Alaska, and employees at the NASA Ames Research Center in Moffett Field, California. And now the EDC houses one of the largest computer complexes in the Department of the Interior. SEE: <http://edc.usgs.gov/about/background.html>

Earth science, computer science, satellite systems engineering, and other professional and technical support services are provided by SAIC & SGT, accounting for the largest portion of the contractor work force.

|||||**ABOUT SAIC:**

Science Applications International Corporation (SAIC), is one of the world's leading providers of outsourcing and IT services, and the largest employee-owned research and engineering company in the United States. SEE: <http://www.saic.com/about/overview.html>

|||||**ABOUT SGT:**

Stinger Ghaffarian Technologies, Inc. (SGT), an aerospace services company, was founded in 1994 and is headquartered in Greenbelt, Maryland. With over 900 employees and projected revenues of \$150 million for 2006, we are dedicated to customer satisfaction and providing high quality support in the areas of Systems Engineering, Scientific Analysis and Modeling, Project Management Services and Information Technology. SGT is ISO 9001:2000 and CMMI level II certified. Currently, we support 30 active contracts for customers including NASA, DoD, NOAA, USGS, and USAID. We have strong affiliations and active partnerships with Lockheed-Martin, Honeywell, CSC, Orbital, SAIC, Raytheon and Northrop Grumman. SEE: [http://www.sgt-inc.com/about\\_us.php](http://www.sgt-inc.com/about_us.php)



## **LOCAL SUPPORT critical to the success of PHASE TWO of the SC GeoPortal**

Jack Maguire, GIS Director in Lexington County, South Carolina made an astute observation, based upon years of work with the GIS community in South Carolina. He said, ***“The GIS community is very willing to share, IF they know who you are, IF they know that you care, and IF they trust you with the data. HUGE difference in your success. This is not a data development exercise [in which we are involved]. It is primarily a team building experience. If the CIO office does not continue to build team relationship then the efforts will be for naught.”***

Previous efforts to “coordinate” GIS in South Carolina over the last quarter century have failed, first because efforts have been top down rather than bottom up, second, because our primary GIS communities are local, and efforts to build their trust have been minimal. Efforts to build PHASE TWO of the geoportal will founder, regardless of technology, IF local GIS directors do not know who we are, IF they do not believe that we will protect their interests, THEN they will not trust us with their data.

Recognizing the centrality of that trust to the success of the geoportal initiatives, the project director has spent the past year traversing the state, attending regional user group meetings, helping others organize special interest user groups such as the new Arc Pad Mobile GIS users group, the new GIS Crime and Intel users group, identifying respected leaders of the GIS community, and doing presentations about the SC GeoPortal and where we are attempting to go.

Our portal initiative is supported by four statewide geospatial users groups: The State Mapping and Advisory Committee (SMAC); the South Carolina Arc Users Group (SCARC), the South Carolina Arc SDE Users Group, and the South Carolina ArcPad Users Group

In addition, we have been seeking support for the initiative through our seven regional user groups (i.e., Central Savannah River Area User Group (CSRA); Coosawhatchie ArcGIS User Group; Foothills Area User Network (FAUN); Pee Dee Regional User Group; South Carolina Lowcountry Regional User Group; Horry-Georgetown User Group (HGUG), and the new Twin Rivers UG) and our two local users groups in Lexington and Darlington.

This broad network of state, local, and regional users groups is as close as we can come, in South Carolina, to having in place the informal equivalent of “coordinating councils.” They have been effective in developing one of the most close knit, cooperative GIS communities in the nation. And they will play a central role in determining whether our efforts to construct PHASE TWO of the South Carolina GeoPortal are successful or whether our efforts will founder like the top down efforts of the past.

### **Networking and coordination efforts during 2005 and 2006**

Efforts have been underway at state level, under the aegis of a small task force convened by the Governor two years ago, to develop a memorandum of understanding whereby several state agencies will agree fund the position of a state GIS coordinator. The memorandum of understanding is still being negotiated, a state coordinator has not yet been hired, and a state coordinating council has not yet been formed.

Meanwhile, there has been an enormous amount of collaboration and information sharing within, between, and among a network of users groups across the state. All of the users groups are aware of the existence of the SC GeoPortal and we appear to have the support of the largest GIS users group in the state, the South Carolina Arc Users Network, for our projected efforts at creating PHASE TWO of the GeoPortal.

## **Here is a listing of the efforts made by the project director to enlist the support and trust of geospatial analysts in South Carolina**

### **Central Savannah Region Users Group**

Attended three meetings. Did a presentation on the GeoPortal. On group e-mail list. Digital photographs.

### **Pee Dee Regional Users Group.**

Attended three meetings. Did a presentation on the GeoPortal. On group e-mail list. Contact information for the users group in networking section of the SC GeoPortal. Digital photographs.

### **Foothills Area Users Network(FAUN).**

Attended three meetings. Did a presentation on the GeoPortal. On group e-mail list. Contact information for the users group in networking section of the SC GeoPortal. Digital photographs.

### **State Arc SDE users group**

Hosted organizational meeting at Department of Corrections Training Pavillion. On group e-mail list. Contact information for the users group in networking section of the SC GeoPortal. Digital photographs.

### **State ArcPad/Mobile GIS users group**

Reserved auditorium at Archives and History for organizational meeting. On group e-mail list. Helping provide staff support. Contact information for the users group in networking section of the SC GeoPortal. Digital photographs.

### **State Crime and Intelligence Analysis users group.**

Used the SC GeoPortal to publicize the organizational meeting at SC Archives and History. Contact information for the users group in networking section of the SC GeoPortal. Digital photographs.

### **State GIS Conference in Charleston, SC in January of 2006**

Went public with the creation of the SC GeoPortal. Did a joint presentation with NC OneMap and a second presentation on the SC GeoPortal with Gary Merrill (USGS/GOS/National Map). Digital photographs.

### **Spent two days in Raleigh, NC in meetings with the staff of NC OneMap.**

Attending were Chuck Fallaw, Deputy CIO; Bobby Weatherford, IT Director for the Office of Research and Statistical Services; Neil Sengupta, US Computing Inc; Kemble Oliver, GIS Program Manager with the Division of the State CIO.

### **Organized meeting to introduce ESRI's GIS First Responder Rep**

Obtained permission to host a meeting at SLED's Fusion Center to introduced Jeff Sopel to our first responder community. Among those attending were representatives from the State Law Enforcement Division(SLED), SC Department of Public Safety(Highway Patrol), the FBI, the Federal Attorneys office of Intelligence, the SC Geodetic Survey, the Emergency Management Division, Lexington County's GIS Crime and Intelligence Analyst, Bradshaw Consulting Services, and US Compting Inc.

### **National Weapons of Mass Destruction Conference, Charleston, SC.**

Attended meeting of 14th Army CST(Civil Support Team) personnel from all 50 states where ESRI was providing introductory classes on GIS. Digital photographs. The WMD Civil Support Teams are unique because of their federal-state relationship. They are federally resourced, federally trained and federally evaluated, and they operate under federal doctrine. But they will perform their mission primarily under the command and control of the governors of the states in

which they are located. They will be, first and foremost, state assets. Operationally, they fall under the command and control of the adjutant generals of those states. As a result, they will be available to respond to an incident as part of a state response, well before federal response assets would be called upon to provide assistance.

#### **Weapons of Mass Destruction Exercise: Orangeburg, SC**

Participated in pre-planning of a low country WMD exercise. Participated in the implementation of the actual exercise in which mobile GIS was used to communicate with the the central EOC. Digital photographs.

#### **Situational Awareness Seminars conducted jointly by ESRI-Redlands and BCS-Aiken**

Participated in situational awareness seminar conducted in downtown Charlotte, NC. Digital photographs.

Participated in situational awareness seminar conducted in downtown Charleston, SC. Digital photographs.

Bradshaw Consulting Services(BCS) in Aiken, South Carolina is one of our twelve ESRI business partners. Last year BCS sold more ESRI software than any ESRI business partner in the world. They are in the forefront of developing mobile GIS applications and are responsible for the development of MARVLIS, a GIS-powered emergency response system which is now empowered by links to Pictometry imagery and soon to be alive in Lexington County, Dorchester County, and Richland County. Other applications such as ShotSpotter and their crime and fire analysis applications are in widespread use across the state. Working with BCS has been an education, a delight, and our working together has significantly advanced the degree to which we, as interlopers, have been accepted by the GIS community in South Carolina.

#### **GIS Day 2006**

Spent the morning at Lexington Middle School in Lexington SC where Jack Maguire, local GIS director, and Joey Wilson, head of the mobile GIS division at Bradshaw Consulting Services, introduced **over 700 middle school students and their teachers** to a live, interactive introduction to GIS and mobile GIS. Provided a DVD of digital photographs that Joey Wilson has used to create a powerpoint presentation that is being widely shared to increase participation in GIS Day 2007.

#### **Pictometry**

Attended an initial presentation by Pictometry's in Lexington County. Attended additional presentations in Aiken County, York County, Beaufort County, Orangeburg County, and Darlington County. Attending the meetings made it possible for me to meet and be met by a myriad of local GIS users I would not otherwise have met (e.g. police chiefs, county sheriffs, fire department chiefs, emergency response directors, assessors, planning office staff, water and utility staff, etc) except at local users group meetings. Organized a meeting with the Deputy CIO with Erin Ford (State Rep), Julian Rathnam (National Rep), and Dante Pennachia (VP for Marketing). Attendance at the meeting from local GIS directors and from BCS in Aiken (Now in partners with Pictometry in support of their MARVLIS emergency response system). Working on a state contract with Pictometry that is expected to provide substantive cost savings to local government agencies through the state.

#### **US Computing Inc**

At no cost and as a favor to the CIO, U.S. Computing Inc has just finished geocoding 380,000 professional licenses and permits for the SC Department of Labor, Licensing, and Regulation (LLR). This "killer applications" will demonstrate the degree to which the addition of locational information can dramatically enhance the usefulness of databases that have already been created by government agencies. Licenses and permits from 40 licensing agencies will be searchable over the internet by legislative district, by regional council of government, by county, and by zip code.

Because legislators call LLR on a weekly basis seeking information about the demographics of their districts, the availability of this geocoded database is expected to raise the awareness of our legislators about the transformational power of GIS to enhance the usefulness of information that is being collected by agencies across state government but which is underutilized by the agencies, by businesses that could benefit from better availability of the information, and by citizens.

Arranged a meeting to the owner of US Computing Inc. with Jake Jacobs, IT Director for the State Department of Education, and Doug Hamrick, Transportation Director to introduce them to two K-12 Applications developed by US Computing Inc.: **COMPASS**, which supports school and activity bus transportation, and **SDP-Net**, which supports school and district planning.

The US Computing Inc applications are integrated with ESRI's **ArcGIS** suite and with the **SASlxp** database mandated for use in all districts in SC by the Department of Education.. The applications are currently licensed by Richland 2, Lexington 1, Lexington 2, Lexington 5, Anderson 1, Anderson 5, Darlington, Sumter 2, Sumter 17 and also by Charlotte-Mecklenburg and Tallahassee. Strong interest in licensing the applications has been expressed by other school districts in the state.

The **SASlxp** database is used in 40 states, but the applications developed by US Computing Inc are, to our knowledge, the only one's that leverage the information captured by the **SASlxp** database and and that enhance its information through the use of **ESRI ArcGIS**. Additional customized GUI interfaces make the information accessible to anyone from a school superintendent to a school bus driver.

US Computing Inc is the newest of our twelve ESRI business partners in South Carolina.

#### **The support of the SC Division of the State CIO and support for FGDC standards at local level**

From the moment we received notification that we had been awarded the NSDI CAPs grant, our Deputy CIO, Chuck Fallaw, has provided full and unremitting support of our efforts, allowing the project coordinator to devote a majority of his time to the creation of PHASE ONE of the GeoPortal and to network the state in an attempt to gain the trust and support of the local GIS communities that we will need if we are to be able to create PHASE TWO of the portal.

As an overt signal of support to the local GIS community, he is offering to ask that the State Architecture Oversight Committee (AOC) officially endorse standards--**developed at local level--** to be the approved geospatial standards for South Carolina. The SC AOC is an organization formed under the aegis of the CIO, comprised of IT Directors throughout state government, whose intent is to establish enterprise level technology standards for the state. The project coordinator has been providing staff support for the Enterprise Applications Domain subcommittee which has as one of its responsibilities the development of standards for GIS.

Work is already underway in a newly formed users group comprised of County GIS directors to develop FGDC compliant standards for use by that group. Similar efforts are underway as part of an effort to create a users group that is currently being formed of GIS directors within our municipalities.

## **Further challenges, and collaboration activities**

The addition of phpBB-supported, interactive forums to the geoportal may enhance its effectiveness in encouraging collaboration in a number of areas, although we are still at the bottom of a learning curve in using the forum software effectively.

Developing PHASE TWO of the SC GeoPortal will be more difficult, and involve far more collaboration than the creation of PHASE ONE. We are in the final stages of crafting a statement of work acceptable both to us and to EROS. That they have agreed to host our data at no cost to us “for the foreseeable future” will allow us to avoid the political Scylla and Charybdis of who hosts the data. At some future point we may look at the possibility of hosting data centrally—but voluntarily—from those counties that lack the funds or expertise to do so themselves. But that is on the distant horizon. Our immediate goal is to find a way for those counties that are already hosting their data online to be able to share data with one another.

As of today, statewide users group of GIS directors at county level has been formed and they are working together to develop FGDC compliant standards to which they have agreed to adhere. Also, as of today, the creation of a second statewide users group of GIS directors at municipality level is nascent, with efforts to create the organization being led by Lisa Holzberger in Myrtle Beach and Tony Westmoreland in Columbia. If a state coordinating council is finally created, local government agencies should be guaranteed at least two seats on the council and a voice in affairs that concern the geospatial community at local level.

### **The state of regional coordination, how has it changed as a result of this project**

Efforts have been underway at state level, under the aegis of a small task force convened by the Governor two years ago, to develop a memorandum of understanding whereby a number of state agencies will agree fund the position of a state GIS coordinator over a period of years. The memorandum of understanding is still under negotiation, a state coordinator has not been hired, and a state coordinating council has not been formed.

Meanwhile, there has been an enormous amount of collaboration and information sharing going on within and among a network of users groups across the state. All of the users groups are aware of the existence of the SC GeoPortal and we appear to have the support of the largest GIS users group in the state, the South Carolina Arc Users Network, for our efforts to create PHASE TWO of the GeoPortal.

As of today, a statewide users group of GIS directors at county level has been formed and its members are working together to develop FGDC compliant standards to which they have agreed they will adhere. Also, as of today, the creation of a second statewide users group of GIS directors at municipality level is underway, with efforts to create the organization being led by Lisa Holzberger in Myrtle Beach and Tony Westmoreland in Columbia.

If a state coordinating council should finally be created, the two organizations should guarantee local government GIS directors at least two seats on the council and a compelling influence in affairs that concern the geospatial community at state and local level. Their existence should also provide state agencies with an easy way to conduct business with counties and municipalities and to collaborate with them on matters of mutual concern.

## The regional scope, the types and applications of data covered by this project

The best way to answer this question is to refer you directly to the SC GeoPortal at the following address.

<http://www.scgis.gov>

The structure of the SC GeoPortal directly reflects its stated mission:

[SC GIS Portal Home](#)



[Home](#)  
[Introduction](#)  
[Mission](#)  
[Stories](#)  
[Search](#)

[Bulletin Board](#)

[Geospatial Assets](#)

[The Network](#)  
[The Forum](#)

[Applications](#)  
[The Toolbox](#)

[The Marketplace](#)

[The Library](#)

### The Mission of the SC GeoPortal

- The **primary function** of the SC GeoPortal is to provide a central gateway to repositories of geospatial assets maintained in local, state, and federal agencies...and in the private sector.
- A **second function** is to showcase geospatially-enabled applications that demonstrate the power of geotechnology and to identify situation-specific toolboxes of geospatial applications and equipment.
- A **third function** is to support forums for sharing information within our network of geospatial analysts so that we may discover solutions to common problems.
- A **fourth function**, following the lead of GeoSpatial OneStop, is to promote a marketplace where GIS developers and vendors will have a place where they can information about their products and services with potential clients.

### What are the best practices that lead to success?

Jack Maguire, GIS Director in Lexington County, South Carolina said succinctly in a recent e-mail: ***“The GIS community is very willing to share, IF they know who you are, IF they know that you care, and IF they trust you with the data. HUGE difference in your success. This is not a data development exercise [in which we are involved]. It is primarily a team building experience. If the CIO office does not continue to build team relationship then the efforts will be for naught.”***

Recognizing the centrality of trust to the success of the geoportal, the project director has spent the past year traversing the state, attending regional user group meetings, helping others organize special interest user groups such as the new Arc Pad Mobile GIS users group, the new

GIS Crime and Intel users group, identifying respected leaders of the GIS community, and doing presentations about the SC GeoPortal and where we are attempting to go.

Our portal initiative is supported by four statewide geospatial organizations: The State Mapping and Advisory Committee (SMAC); the South Carolina Arc Users Group (SCARC), the South Carolina Arc SDE Users Group, and the South Carolina ArcPad Users Group

The state, regional, and local user groups are as close as we come, at local level, to the creation of a “coordinating council.” THE best practices in coordinating geospatial data are going to involve trust, voluntary cooperation, and consensual decision making.

### **What practices you have found that do not lead to success**

Previous efforts to “coordinate” GIS in South Carolina over the last quarter century have failed, first because efforts have been top down rather than bottom up, second, because our primary GIS communities are local, and efforts to build their trust have been minimal at best. Efforts to build PHASE TWO of the geoportal will founder, regardless of technology, if local GIS directors do not know who we are, if they do not know that we will protect their interests, they will not trust us with their data.

### **Describe how the collaboration is governing**

Our state, regional, and local user groups are as close as we come, at local level, to the creation of a “coordinating council.” THE best practices in coordinating geospatial data are going to involve trust, voluntary cooperation, and consensual decision making. That is the essence of collaboration. A “governing” executive council, if one is to be, needs to include representation from each of the state and regional user groups.

To the degree that we can form new user groups build around what may be called “communities of interest,” a viable “state coordinating council” may emerge, drawing representation from the “communities of interest” rather than being dominated by state agencies that depend upon locally created and maintained geospatial information but create nothing themselves except through synthesis.

Such focused user groups might include:

- Education
- Commerce and Tourism
- Medicine, Health, and Social Services
- Environmental Concerns
- Crime, Fire, Emergency Response
- Electricity, Gas, Sewer, Water, Telecommunications
- Local Government

(See Appendix B)

## Next Steps

### Will this project's activities continue in the future?

That is up to the Division of the State CIO. The current project director's last day at work will be on 29 June 2006. PHASE ONE of the SC GeoPortal is online and is being maintained by the current project director; however, a lot of what is included in the GeoPortal is based upon information that is being provided from local GIS directors and from our vendors and developers. It is not a static website.

Unless someone from the Division makes a determined effort to network with local GIS directors as has been done over the past two years, how long the GeoPortal will be maintained is an issue that has not been resolved. A meeting this spring with the CEO and program director of the South Carolina Government website (<http://www.sc.gov>) to determine the cost of porting the site to SC.GOV suggests that the cost of doing so would be about \$50,000. Doing so would sacrifice the ability of the portal to support interactive collaboration through forums supported by phpBB.

### Describe the next phase in your project

PHASE TWO of the SC GeoPortal will require local and state agencies to adhere to FGDC/NSDI standards and compliance with the metadata required for registration on The National Map before a site will be listed SEE: <<http://www.fgdc.gov/standards/standards.html>> .

Because PHASE ONE of the SC GeoPortal was developed using free open source development tools, and because Paul Lewis at USC-Aiken has refused any payment for the support he has provided as a mentor, we have obtained permission to use the unused \$9,000 budgeted for technical support to contract with Mike Buswell at EROS to provide the technical support and direction our cataloging team will need to build a state viewer and begin the development of a seamless, statewide database of geospatial information.

EROS was instrumental in the creation of NC OneMap and has deep expertise in the construction of portals at state and national level.

In addition, EROS will host our South Carolina geospatial information at no additional charge, "for the foreseeable future." Having EROS host our data eliminates the politics that would inevitably surface at state agency level regarding the most appropriate location for our state basemap.

Because they have offered to host our data at no additional cost, it will mean that our efforts at creating a shared geospatial database for South Carolina will be affordable, and that the funding provided by our NSDI CAPs partnership grant, combined with the voluntary assistance of the partners in our pilot project, should pay for most or all the early stages of what will be a prolonged effort to create a voluntary, coordinated database of shared geospatial assets throughout South Carolina.

We have enlisted the voluntary support of geospatial analysts in Aiken County, Lexington County, Columbia City, York County/Rock Hill, the SC Department of Health and Environmental Control, the Department of Natural Resources, the Office of Research and Statistical Services, and the CIO.

Leadership for PHASE TWO of the GeoPortal is being ably provided by Gary Merrill , our state liaison and partner for USGS/GOS/National Map. He secured three days of training which was conducted by staff members from the USGS Mapping Office in Rolla. Because the USGS mapping offices there are closing , it was fortunate that Gary met Mike Buswell at the last NSGIC meeting and has succeeded in negotiating an affordable statement of work from him. We anticipate having an orientation from EROS in July, August, or early September of 2006 with working on PHASE TWO of the geoportal to be ongoing throughout the year.



### **Requirements (more technical assistance, software, other?)**

We have obtained permission from USGS to use the \$9,000 budgeted for technical support to contract with Mike Buswell at EROS to provide the technical support and direction our cataloging team will need to build a state viewer and begin the development of a seamless, statewide database of geospatial information.

If we can learn to use phpBB to support collaboration and training on the viewer and on building an interactive database, it will reduce the need for team members to travel to a central location for training.

An item for which we budgeted in our unsuccessful application for a metadata training grant, was travel for those who have volunteered for our pilot project. We will be seeking funds to cover at least their travel expenses in the future.

### **What areas need work?**

Obviously, the development of PHASE TWO of the SC GeoPortal is going to require a lot of additional work, and tenacity on the part of those who have volunteered to take part in what is quite bluntly, an entirely cooperative effort on the part of all of the cooperating organizations.

The statewide users group of county level GIS directors is very new and is still in the process of organizing and maturing but appears to have the full support of the Association of Counties.

The statewide users group of municipal level GIS directors is even newer, but the Municipal Association has expressed enthusiasm in helping us in its creation and support.

The statewide Mobile GIS users group has had one meeting, but it was attended by over a hundred geospatial analysts from all over the state.

The GIS Crime and Intel conference, which is leading to a first responder users group, was the first in the state, and packed the large auditorium at SC Archives and History.

For the first time in the history of South Carolina our two largest geospatial organizations—The State Mapping Advisory Committee and the SC Arc Users Network—joined forces to host the largest state GIS conference in history. The chairs of both groups, Lynn Shirley and Greg Thacker, are good friends and are working together to try to bring the promise of coordination in South Carolina a little closer to fruition. Because Bill Hoge is due to succeed Greg Thacker at the end of his current term, the cooperation will continue and perhaps even deepen. Good things are on the horizon for GIS in South Carolina. It's just going to take a little more time.

## **Feedback on Cooperative Agreements Program**

### **What are the program strengths and weaknesses?**

I don't know that I am in a position to evaluate the program strengths and weaknesses. I do know that having Kathy Covert as our contact has been a definite strength. She responds immediately to calls for help or information. The same can be said of Gary Merrill, our state liaison with USGS. He will be doing some heavy lifting as we go forward with PHASE TWO.

### **Where does the program make a difference?**

This question is being answered from the perspective of the Division of the State CIO, SC Budget and Control Board:

That we actually brought up and are supporting the SC GeoPortal from the Division of the State CIO has given us a credibility and visibility that we lacked in the GIS communities of the state.

Now, if you google on “geospatial or GIS and SC or South Carolina”, <http://www.scgis.gov> almost invariably appears at the top of the first page of hits. We have had visitors from Texas, North Dakota, the United Kingdom, and last week, China. We had a native of South Carolina, a teacher in Texas, using <http://www.scgis.gov> as the basis for geography lessons with her middle school students. That’s visibility!

**Was the assistance you received sufficient or effective?**

The assistance that has been provided by Gary Merrill has been and will continue to be invaluable.

Without the assistance the project director received from Paul Lewis, Documents Librarian at USC-Aiken, the likelihood that we would even have a South Carolina GeoPortal is remote. I’ll go so far as to say the portal would never have seen the light of day. Having old friends who simply step up bearing gifts is more than fortuitous. It bears on the miraculous. The value he brought to our project cannot be overstated.

We still have a long way to go in bringing up PHASE TWO of the GeoPortal, but PHASE ONE of the GeoPortal has been delivered as promised, and our relationship with local government agencies is considerably more positive as a result.

**What would you recommend doing differently?**

The chance to talk with other CAPs recipients in Reston was a valuable experience, but it was brief. Had it been possible to interact with other CAPs partnership recipients, possibly using forum software such as phpBB, it would have been possible for all project recipients to share what works and what does not with others. The cost for supporting our geoportal AND the forums has been the cost of the time the project director spent creating the geoportal and the forums. The cost to host both the geoportal and forums is \$6.95 per month. That’s not a lot of change.

**Are there factors that are missing or need to consider that were missed?**

In the abstract? No. If you could provide more funding, then larger programmatic issues could be addressed. For now, we’ll take all the seed money we can get. In this case it has made a huge difference.

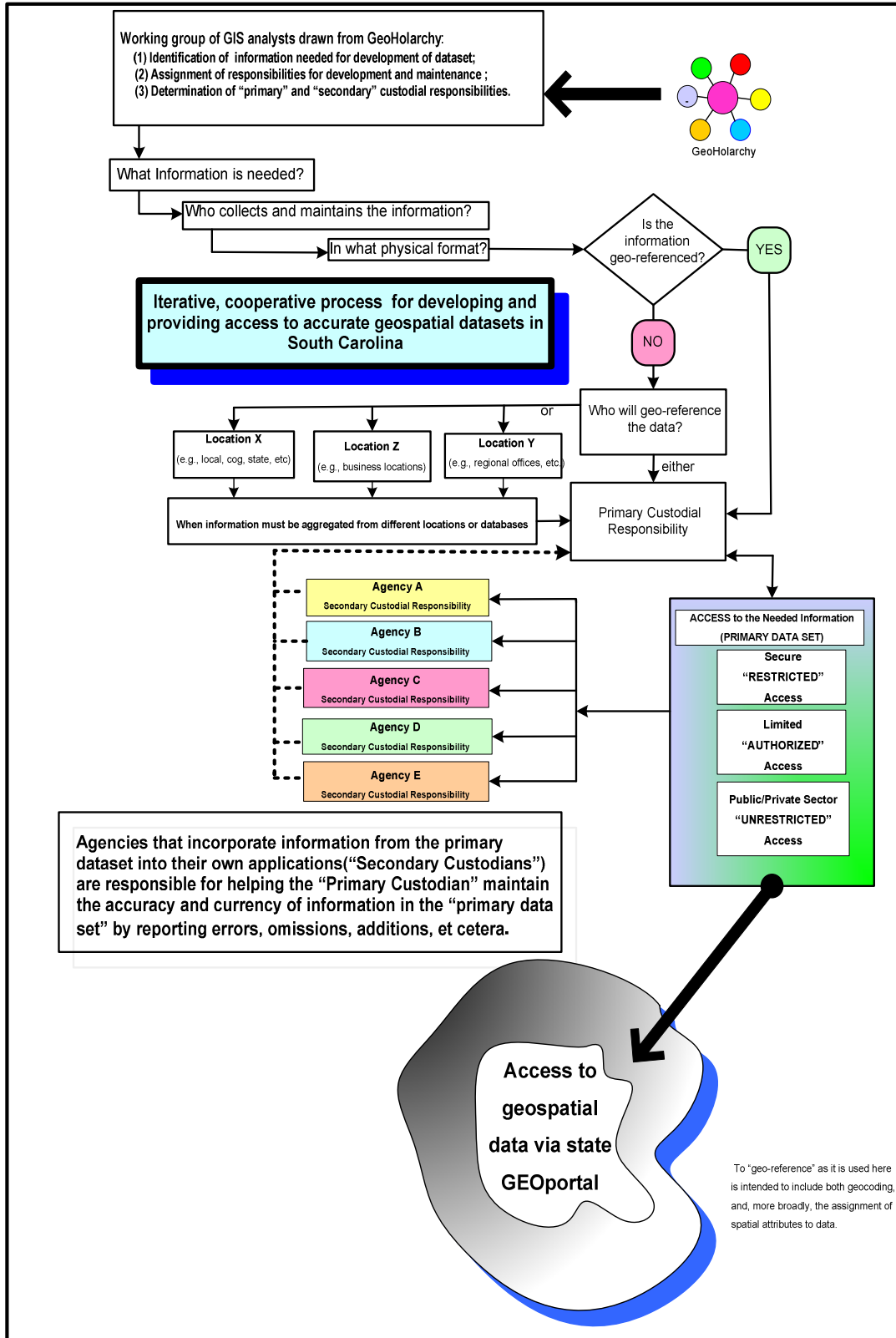
**Are there program management concerns that need to be addressed? Time frame?**

A timeline with a checklist that covered the time of the grant would be of enormous help. The project director does not, in the Division of the CIO, have much to do with the financial reports that are supposed to be submitted. That is handed off the Deputy CIO for Administration. It took until November to set up the grant in the books of the Budget and Control Board and then, for some inexplicable reason, the \$20,000 budget was never accessed, even though we had purchased equipment, traveled to Reston, attended the state GIS conference in Charleston, and visited regional GIS user groups three times consecutively each. The heads up I received from Gita Urban-Mathieux was most welcome!

**If you were to do this again, what would you do differently?**

I’d probably have retired before I submitted the first proposal. I didn’t know what I was getting into. But I have had so much fun this past year and feel that we have accomplished so much that will benefit the citizens of South Carolina, I’d probably take the plunge again, as I did before, making large promises that I knew I couldn’t keep. And then did.

# APPENDIX A



# APPENDIX B

