AGREEMENT NUMBER: 05HQAGO121
FINAL REPORT

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Final Report of S.C. Department of Natural Resources Activities for CAP Grant 05HQAGO121

Introduction

In 2005, the SC Budget and Control Board received a CAP grant under the direction of Dr. Kemble Oliver to develop a GIS portal for South Carolina and to facilitate local government GIS coordination. The results of this phase of the project have been reported elsewhere. However, this grant also funded the development of a state GIS data viewer in conjunction with the U.S. Geological Survey to publish datasets from federal, state and local government agencies over the World Wide Web. With the retirement of key project personnel, the SC BCB solicited the support of the SC Department of Natural Resources to contract with the USGS to develop the data viewer. This report presents the results of this specific component of the CAP grant and will address critical metrics provided by the CAP grant administrator.

Project Summary

In November 2006, the SC Department of Natural Resources entered into a Joint Funding Agreement with the U.S. Geological Survey, EROS Data Center to develop an interactive data viewer and catalog system. The JFA expired on December 31, 2007. The purpose of the viewer was to provide an on-line, single-source mechanism to facilitate the data coordination efforts of several state, county, and city government entities that agreed to implement, operate, and maintain a state geoportal, and web viewer called 'South Carolina GIS." The vision of the South Carolina GIS was to create an integrated environment for state, county, and local entities to publish their geospatial data from a common place via the internet. The goal was to implement the tools, and processes necessary for the purpose of building a geospatial map for South Carolina. Upon implementation, the SC catalog team will respond to web registration requests from other state, county, and city geospatial offices for the publication of their data holdings to the viewer.

Interactive Viewer/Catalog Technical Specifications

In order to maintain consistency between the South Carolina interactive viewer and those designed and built for other states, the DNR contracted with the EROS Data Center of the USGS to develop the viewer. The technical specifications for the viewer were:

1. Develop, build, and implement an interactive state GIS data viewer that is consistent with the design, layout and format of other viewers developed by the EDC for other states and catalog database to utilize a distributed network of state-wide OGC Web Map Services.
2. The header of the viewer will be Labeled "South Carolina GIS"

3. Default geographic extents will include some portions of North Carolina and Georgia
4. The viewer will Include a “Bookmark” button that will allow users the option of returning to a previous extent and set of data layers.
5. The viewer will have the capabilities to provide Web Metrics on visitors to the site on a monthly basis
6. The supporting data catalog will be built as an MySQL database with a PHP interface for storing WMS information
7. The system will include a harvesting process to share WMS registration data with GOS and *The National Map*.
8. The initial development and location of the viewer / catalog will be on USGS server located at EROS for a period of approximately one year or for a term as agreed to by the State of South Carolina and USGS. Final project plans include the ultimate transfer of the viewer / catalog to a local server in South Carolina.
9. As developer of the system, the USGS must continue to provide technical assistance for the viewer, catalog, and web registration process as may be needed and mutually agreed upon by the State of South Carolina and the U.S. Geological Survey.
10. While hosted by the USGS, the EROS Data Center must provide team participants from state and local government access to the catalog database via a web interface. Permissions, user names, and passwords will be issued to insure appropriate security protocols.

Training

In addition to the technical viewer/catalog development, the EROS Data Center agreed to provide sufficient training and support of the system. Specific tasks associated with training and support included two-days of on-site training in Columbia for the SC Catalog Team. The catalog team consisted of agency representatives that will maintain the catalog, register WMS data of new participants and who will provide local support to the users in South Carolina. The training also included GIS project managers from the cooperating agencies to solicit executive level support for the long-term maintenance of the viewer/catalog. Finally, the on-site training included technical configuration parameters to establish an Arc Internet Map Server-based WMS.

After completion of the training, and throughout the life of the project, the USGS State Liaison to South Carolina has continued to provide training support and coordination for the data viewer/catalog project. This support includes offering periodic metadata training workshops to state, county, and city offices participating in South Carolina GIS data viewer, providing guidance and assistance for metadata creation and maintenance to participants and continued collaboration and coordination of geoportal activity between agencies.

Project Status

The data viewer/catalog system was completed by the EROS Data Center in April 2007 and after extensive testing went live in June 2007. The viewer can be accessed at http://myscmap.sc.gov. See attached screen capture of the viewer frontpage. The management of the web site look and feel is being provided by the SC Dept. of Natural Resources webmaster. Similarly, all training by EDC on viewer operation, configuration and management has been completed.

There have been continuing activities since the viewer went live and operational. First, a formal Memorandum of Agreement has been established between eleven state agencies and local governments to participate in the SC data catalog and viewer. Each agency agrees to publish data to the viewer and maintain the catalog for information relevant to their area of interest. In addition, each agency agrees to work to promote the data viewer and assist new partners in populating the catalog with their data offerings. The eleven participants include:

SC Dept. of Health and Environmental Control
SC Dept. of Natural Resources
SC Budget and Control Board, Office of Research & Statistics
SC Budget and Control Board, Chief Information Office
Lexington County
Aiken County
York County
City of Columbia
University of South Carolina
SC State Mapping Advisory Committee
US Geological Survey

Second, the catalog team has established a quarterly meeting schedule to coordinate activities and address issues relevant to the long-term maintenance of the viewer and catalog. Third, the newly hired GIS Coordinator for state agencies has assumed responsibility as the lead state representative to coordinate catalog team activities, solicit additional state and local government participation and serve as the point of contact between the State of South Carolina and the USGS liaison for catalog/viewer coordination. Fourth, and finally, the SC GeoPortal web site at http://www.scgis.sc.gov was discontinued. The information from this web site has been incorporated into the data viewer/catalog web site.


mySCmap - About - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://myscmap.sc.gov/
Go
Links TOSHIBA Access Customize Links Free Hotmail RealPlayer Windows Windows Media
Norton AntiVirus
mySCmap.sc.gov
Spatial Data For South Carolina
COLUMBIA
Google Search Go
About mySCmap
FAQs
Map Viewer
Participants
Resources & Links
Launch Viewer
Welcome to mySCmap!
My South Carolina Map (mySCmap) is a GIS data viewer for South Carolina to allow anyone insteresed in data on SC to view data that is avaialbe from participants in the SC Catalog Team.
Who We Are?
We are volunteer government entities from the local to federal level who have signed a MOU to estabilish a GIS data viewer for South Carolina.
Partners include: Aiken County, Office of the State Chief Information Officer (CIO), City of Columbia, Department of Health and Environmental Control (DHEC), Department of Natural Resources (DNR), Lexington County, State Mapping Advisory Committee (SMAC), University of South Carolina, U.S. Geological Survey (USGS), and York County.
Minimum Participation
News!
News information.
How to Participate!
I would like to particpate, who can and what are the requirements?
Metadata Resources
Brief overview & links.
Internet
start
cap2008
dnrcap08.doc - Micro...
GeoPortal-FinalRepor...
mySCmap - About - M...
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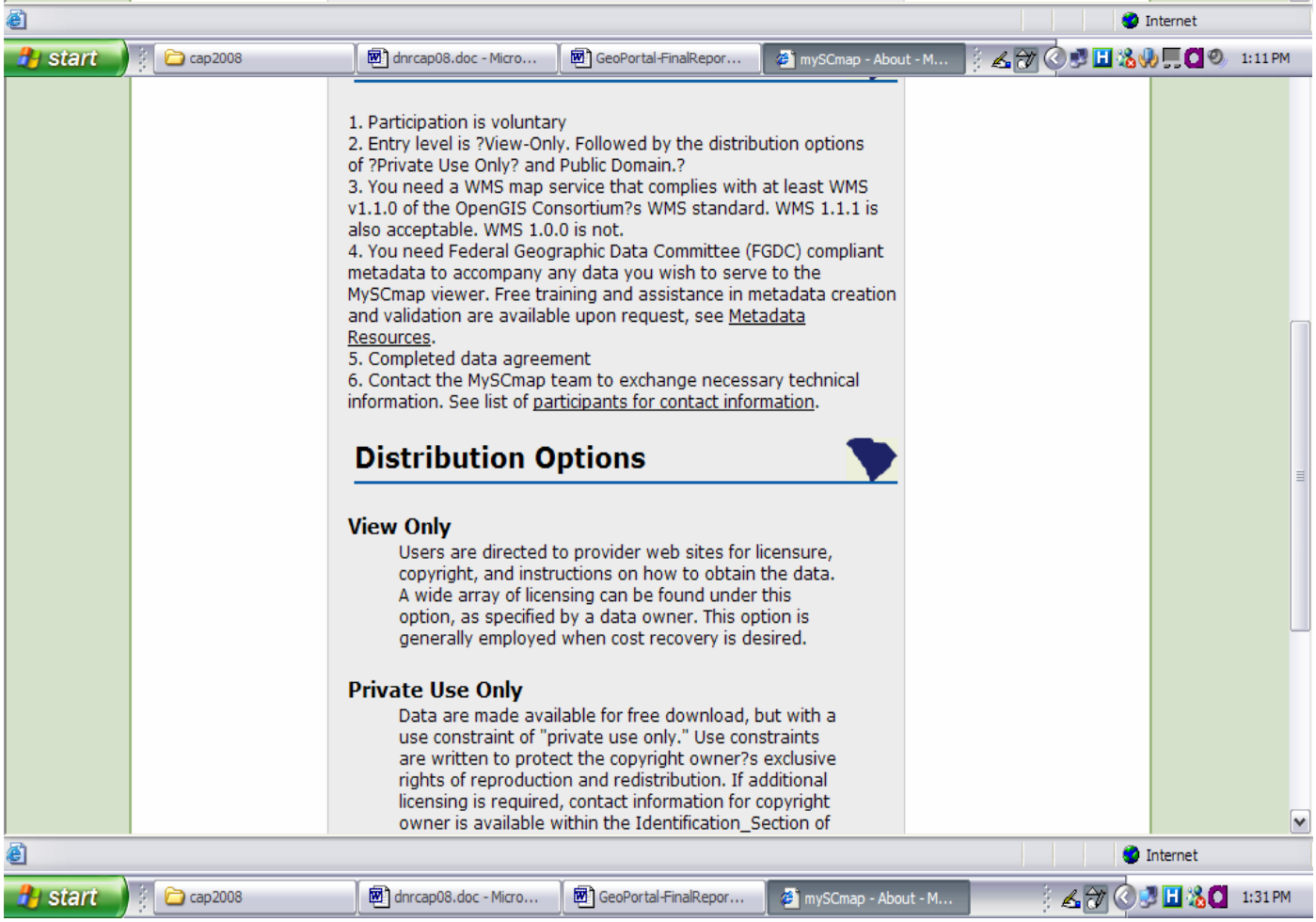
1. Participation is voluntary
2. Entry level is ?View-Only. Followed by the distribution options of ?Private Use Only? and Public Domain.?
3. You need a WMS map service that complies with at least WMS v1.1.0 of the OpenGIS Consortium?s WMS standard. WMS 1.1.1 is also acceptable. WMS 1.0.0 is not.
4. You need Federal Geographic Data Committee (FGDC) compliant metadata to accompany any data you wish to serve to the MySCmap viewer. Free training and assistance in metadata creation and validation are available upon request, see Metadata Resources.
5. Completed data agreement
6. Contact the MySCmap team to exchange necessary technical information. See list of participants for contact information.
Distribution Options
View Only
Users are directed to provider web sites for licensure, copyright, and instructions on how to obtain the data. A wide array of licensing can be found under this option, as specified by a data owner. This option is generally employed when cost recovery is desired.
Private Use Only
Data are made available for free download, but with a use constraint of "private use only." Use constraints are written to protect the copyright owner?s exclusive rights of reproduction and redistribution. If additional licensing is required, contact information for copyright owner is available within the Identification_Section of
Internet
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cap2008
dnrcap08.doc - Micro...
GeoPortal-FinalRepor...
mySCmap - About - M...
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The state of regional coordination and how has it changed as a result of this project.

In October 2006, eight state agencies established the South Carolina Geographic Information Systems Coordination Council through a Memorandum of Agreement (MOA) between the agencies. Among the first actions of the Council was to fund a GIS Coordinator position for SC State agencies. Similarly, in 2006, the Geospatial Association of South Carolina was established to provide a coordination mechanism among county and local governments. Both of these entities are voluntary and serve a specific client base for GIS coordination. The GIS Coordination Council established state and local government coordination as a primary objective of the new GIS Coordinator and recently a new CAP grant was awarded to facilitate this process.

The data viewer and catalog system established under this GAP grant involves cataloging data from various state and local governments and academic institutions that develop and maintain significant data sources. This project has provided the mechanism by which these data can be accessed and viewed.

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

The scope of this project is statewide. It involves state agencies, regional councils of government, county and municipal governments as well as the academic community. The types of data include primarily framework data, orthoimagery, elevation, transportation, boundaries, hydrography, cadastres, geodetic control, and structures. The scale and resolution of these data, as well as the level of associated attributes vary by data source. The application of the data viewer is to provide an on-line mapping service and metadata catalog of agency and local government data. Data can be downloaded for those layers made publicly available for use in a variety of user applications. However, it is out the scope of this project to provide applications other than data display, access and download.

What are the best practices that lead to success and practices that do not.

To have a successful data viewer, data must be kept current and it is essential to maintain appropriate metadata. Regular meetings of catalog team members are essential to the process. Active GIS coordination and buy-in from agency GIS managers and executives are essential to the long term success of the program.

Describe how the collaboration is governed

Participation in the data viewer and catalog program is voluntary. Each agency has signed a memorandum of agreement to publish data to the viewer and to maintain the metadata and appropriate catalog components. The team has quarterly meetings or conference calls but there is no governance structure. The USGS Liaison and the SC GIS Coordinator serve as primary points of contact for the team.

Next Steps

Will the project's activities continue in the future?

Yes, this project will continue. Eleven agencies have signed a Memorandum of Agreement to participate in the data viewer/catalog project.

Describe the next phase in your project?

The next phase will be to get the newly hired GIS Coordinator more involved in the process, especially to solicit more participation in the project. The State recently received another CAP grant award to build bridges between the state government agencies and local governments. This grant will fund several facilitated workshops to identify issues of common concern, areas of likely cooperation between local and state governments and identify potential projects or funding initiatives that would benefit each level of government in South Carolina. Participation in this state data viewer will be a component in this outreach project.

Requirements and what areas need work?

In order to be relevant, the data viewer requires more statewide data of a higher resolution, scale and accuracy. One primary focus of the catalog team over the next phases of the program will be the identification of additional data to be included in the viewer. Also, the team is looking for more advanced technology and improvements in the web-based mapping services infrastructure to enhance response time and system performance. As indicated above. Increased participation is important and efforts to enlist additional state and local governments are the target of the current GIS coordination activities in the State and of the 2008 CAP grant award.

Feedback on Cooperative Agreements Program

The South Carolina Department of Natural Resources was not the recipient of the CAP grant but served as a subcontractor to the SC Budget and Control Board in order to provide support for the development of the data viewer and catalog system. As a result, the SC DNR is not in a position to adequately assess the CAP grant program. The program did provide funding for a critical element of GIS coordination and data sharing in South Carolina that would not have been available without the grant. In this regard, the CAP grant program has made a significant difference in the State. Building bridges to ensure vertical GIS coordination requires a long-term investment at all levels of government to be successful. On its own, this grant is insufficient to ensure continued GIS coordination success, however, it has provided a critical component that involved federal, state and local government partnerships and now the State of South Carolina must make the commitment to continue this strategy toward success. The creation of the GIS Coordination Council and the award of an additional CAP grant for outreach to the local government GIS community will help to facilitate long-term GIS coordination and data sharing among the public sector entities in South Carolina.