



North Carolina
Geographic Information Coordinating Council

**2010 Annual Report to the Governor
and the North Carolina General Assembly**

November 2010

Submitted to:

*Governor Beverly E. Perdue
and
The Joint Legislative Commission on Governmental Operations*

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NC Geographic Information Coordinating Council
Annual Report to the Governor and North Carolina General Assembly
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Executive Summary

Purpose of the Geographic Information Coordinating Council

The North Carolina Geographic Information Coordinating Council (GICC) was established in August 2001 and is incorporated under General Statute §143-725 through 143-727. The purpose of the GICC is to develop policies regarding the utilization of geographic information, geographic information systems (GIS), and related technologies. The GICC advises the Governor, General Assembly, and the State Chief Information Officer on needed directions, responsibilities, opportunities, and funding related to GIS and geospatial data.

The value of GIS continues to grow as public and private sector organizations use geospatial information in a variety of ways. GIS is a planning and analysis tool that is used on a routine basis to perform many business functions of government. The technology makes many operational matters in the public sector more efficient such as the optimal routing of emergency vehicles, garbage trucks, and school buses. GIS is a multidisciplinary tool that brings together a geographically referenced description of natural resources, open space, transportation, and economic development activity for decision makers who need to look at these and other facets together.

Investments in GIS have occurred in 100 North Carolina counties, numerous municipalities and regional agencies, most state government agencies, the federal government, and in a wide range of private enterprises and nongovernmental organizations in recent years. All of these stakeholders contribute to a robust environment of geospatial data and information technology systems that enable local, regional, state, and national decision support. The GICC contributes to this picture by bringing the stakeholders together on a regular basis to discuss and reach common ground on policies, best practices, and standards that can be adopted across North Carolina to make those investments as efficient and cost effective as possible.

Continued support of GICC initiatives and the work of the Center for Geographic Information and Analysis (CGIA) are important as we define and prepare to implement a Statewide GIS Strategy to achieve the recommendations of the GIS Study and implementation plan endorsed by the General Assembly in 2009.

The Geographic Information Coordinating Council met four times in this reporting period. The Council achieved steady progress on a number of issues, which are reflected in this report. A bulleted summary of the major accomplishments during FY 2009-10 and the action plan for 2010-11 follows. The accomplishments and the action plan are described in greater detail in the full report.

Accomplishments

- Acquisition of high-resolution orthophotography was completed for all 100 counties in North Carolina through a project funded by the NC 911 board. Processing and quality control are still underway and delivery of the final products, which will be available for download from *NC OneMap*, is scheduled for early 2011. The exciting outcome of this project is that consistent high-resolution imagery will be available for the entire state for the first time ever.
- A technology revitalization of *NC OneMap*, as directed by the General Assembly, was initiated this year with support of Council committees and the statewide GIS community. Progress includes a revision of the *NC OneMap* Vision and Characteristics, the update of the list of *NC OneMap* priority data themes, and the initial work to assess user requirements and analyze alternative solutions. These steps will drive the preparation of the Statewide GIS Strategy, a critical action item for 2010-11.
- The transition of CGIA and the *NC OneMap* service and data download site to the Office of the State Chief Information Officer was completed.
- Creation and adoption of standards as well as related outreach activities are important roles of the GICC. The Council adopted a revised North Carolina Technical Specifications for Digital Orthophoto Base Mapping (Secretary of State) and submitted a formal response as part of the public review of the proposed U.S. Thoroughfare, Landmark and Postal Address federal standard. The Council also initiated reviews of the previously adopted Geographic Data Content Standard for Water Distribution Systems and Sanitary Sewer Systems and the Geographic Data Content Standard for Transportation Roads Data. Each of these efforts included substantial stakeholder involvement.
- A new five-year Enterprise License Agreement for the most widely used GIS software was negotiated by the Office of the State Chief Information Officer. The new agreement includes items for both state and local government GIS users and represents a great value to the State. Stakeholders representing the State Government GIS Users Committee and the Local Government Committee participated in the negotiations on behalf of the Council.
- A committee of the Council, working in cooperation with the NC Board of Examiners for Engineers and Surveyors and the NC Department of Justice, clarified a longstanding issue of concern related to GIS data collection by local governments. An advisory opinion by the Department of Justice concluded that collection of GIS data by local governments does not violate NC General Statutes since local governments are exempt via the government exemption.

Action Plan for 2010-11

The Geographic Information Coordinating Council will pursue a combination of activities to achieve its mission in FY 2010-11. The goals for the coming year continue to be driven by the 21 recommendations referenced in the State Geographic Information/Consolidation Implementation Plan, as well as ongoing, high-priority actions that the GICC has planned based on quarterly Council meetings and committee work. Actions for 2010-11 include:

Preparation of the Statewide GIS Strategy

Under the direction of the GICC's Management & Operations Committee, CGIA will draft a Statewide GIS Strategy to present to the Council that will address development, enhancement and management of geospatial data as a strategic resource for North Carolina; support best practices in a wide range of public and private applications of geospatial data; and identify benefits of investments in data, technology, and practitioners.

Adoption and Promotion of Standards

The GICC will apply its process for creation, assessment, update and adoption of standards, and promote application of standards in geospatial data management. Standards under consideration may originate with the GICC, other state agencies, local governments or federal agencies.

Plan for *NC OneMap* Technology Revitalization

The Council will complete analysis of requirements to revitalize the technology and data used to achieve the *NC OneMap* vision. The analysis will identify enhancements that can be developed and implemented by CGIA staff and the GICC's committees without additional resources, and prioritize requirements needing funding and other resources to realize the full benefits of *NC OneMap*.

Business Plan for Orthoimagery

The Statewide Mapping Advisory Committee and its Working Group for Orthophotography Planning will complete a "Business Plan for Orthoimagery," which will define the business case for statewide collaborative orthoimagery projects in North Carolina. The business plan will address frequency of flights, geographic delineation and sequencing, potential options for funding on an ongoing basis, and the costs and benefits of this dataset.

Seek Federal and Other Funding Grants

The Council, CGIA and other agencies will continue to seek federal and other grants to support Council initiatives consistent with a statewide GIS Strategy.

Review Information Technology Projects

CGIA will support the Office of the State Chief Information Officer through the Enterprise Project Management Office (EPMO) in the review of Information Technology Projects that involve geospatial data and technology with the goal of achieving maximum benefits within and across state agencies.

Revise Bylaws of Standing Committees

Staff will work with the standing committees to revise their bylaws, to bring them in line with the revised GICC bylaws.

Ongoing GICC Actions

In addition to the actions cited above from the State Geographic Information/Consolidation Implementation Plan, additional actions are planned and listed as high priorities of the GICC and staff. The Council will continue to leverage its committee structure to improve data resources including parcel boundaries, statewide roads, and preservation of geospatial data. Clearinghouse and warehouse activities will revolve around *NC OneMap* (www.nconemap.gov), managed by CGIA for public access to statewide geospatial data. The Council will continue outreach activities, including the biennial NC GIS Conference (February 16-18, 2011, in Raleigh), to share the GICC's mission, goals, initiatives, and plans, and engage the many North Carolinians who benefit from and enhance the state's geospatial resources. In addition, the GICC, CGIA and GIS users will seek an opportunity to display examples of geospatial data applications to the General Assembly in 2011 to showcase the value of the data, tools and practices in North Carolina.

Section I. Purpose of the Geographic Information Coordinating Council

The North Carolina Geographic Information Coordinating Council (GICC) was established in August 2001 and is incorporated in the General Statutes §143-725 through 143-727. The purpose of the GICC is to develop policies regarding the utilization of geographic information, geographic information systems (GIS), and related technologies. The Center for Geographic Information and Analysis (CGIA) staffs the GICC.

A key initiative of the GICC is *NC OneMap*, the geospatial data clearinghouse and warehouse supporting North Carolina geospatial data users. *NC OneMap* supports data discovery and web-based viewing of North Carolina's geospatial data and reflects the GICC's vision of enabling access to complete, consistent, up-to-date geospatial data that meet accepted standards and are documented. The GICC and the North Carolina GIS community lead an organized effort of numerous partners throughout North Carolina, involving local, state, and federal government agencies, the private sector and academia to achieve this vision.

In 2009, the NC General Assembly in S.L. 2009-451 formally called for Geographic Information Consolidation, finding "that there is a critical need for consolidating the investments made in geographic information systems and developing common infrastructures in order for the State to reap all the potential benefits of geographic information systems at the lowest cost."

As part of the FY 2009-10 budget bill, the General Assembly directed that recommendations set forth in the "State Geographic Information Consolidation Implementation Plan" shall be implemented in three distinct work streams, as follows:

- (1) Transferring CGIA to the Office of the State Chief Information Officer and establishing appropriated funding for staff activities supporting the GICC, statewide standards, and the coordination of data acquisition
- (2) Reestablishing the professional services component and refocusing that effort toward current needs of the community while reducing those overhead costs
- (3) Revitalizing the *NC OneMap* project by leveraging new technology to reduce costs while increasing utility of the service

To review the State Geographic Information Consolidation Implementation Plan, visit http://www.scio.nc.gov/library/pdf/GIS_Study_Implementation_Plan.pdf.

The GICC met four times in this reporting period: August 12, 2009; November 10, 2009; February 10, 2010; and May 12, 2010. A list of GICC members for 2009-10 can be found in Appendix A.

The committee structure is the backbone of the GICC. User committees focus on issues from their unique point of view, and include the Local Government Committee (LGC), State Government GIS Users Committee (SGUC), and the Federal Interagency Committee (FIC). The GIS Technical Advisory Committee (TAC) and the Statewide Mapping Advisory Committee

(SMAC) are the two standing committees that combine representation from each committee with subject experts to work on policy from a collaborative perspective.

This annual report includes the following topics:

- Accomplishments of state and local government in sharing and leveraging data resources through the *NC OneMap* initiative
- Progress on standards affecting the geospatial data user community
- Progress in archiving geospatial data
- Continuing efforts to reach common ground on the roles of land surveyors and GIS professionals
- Action plan for 2010-11 as a result of the [State Geographic Information/Consolidation Implementation Plan](#) approved by the General Assembly as a path forward for GIS in North Carolina

Section II. Accomplishments

Imagery for the State

The North Carolina 911 Board awarded a grant for \$12.3 million to the City of Durham's Emergency Communications Center in September 2009 for the acquisition of high-resolution (6-inch ground resolution) orthoimagery for all 100 counties. The City of Durham Public Safety Access Point (PSAP) recognized the value of up-to-date, consistent, cross-jurisdictional orthoimagery for visual reference in emergency call answering and responding. Prior to this project, North Carolina had a patchwork of county-acquired imagery of various ages and resolutions (see Figure 1). By involving the GICC in the grant application process, the City of Durham PSAP was able to fine tune its application and take advantage of the GICC's expertise in imagery acquisition and commitment to state and local cooperation.

CGIA is managing the project in collaboration with the following entities:

- NC Floodplain Mapping Program in the Geospatial Technology and Management Office, Department of Crime Control and Public Safety, to take advantage of qualifications-based selection contracts in place for orthoimagery acquisition
- NC Geodetic Survey Section, Department of Environment and Natural Resources, to assure positional accuracy of the new products
- Land Records Management Section in the Secretary of State's Office (standards)
- SMAC's Working Group for Orthophotography Planning for technical advice

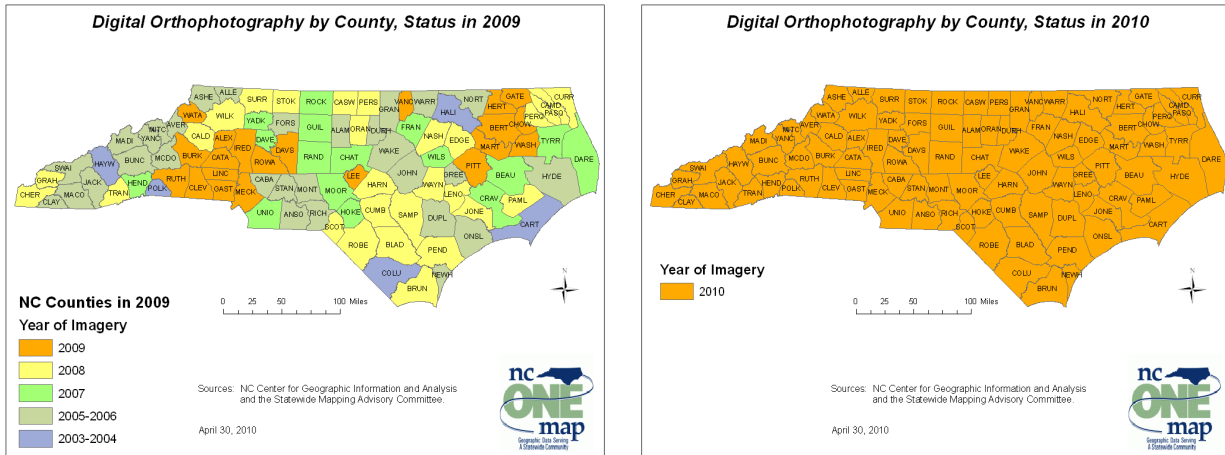


Figure 1. High Resolution Imagery, Status by County in 2009 (left) and 2010 (right)

To accomplish a statewide project, the project team engaged two primary contractors, each with two subcontractors leading teams to acquire and process the imagery. More than a dozen planes using digital cameras acquired imagery for all 100 counties between January and April 2010. Processing and quality control are currently underway. Delivery of the final products is scheduled for early 2011. The products include true color imagery captured and processed at 0.5-foot resolution (6-inch pixels, equivalent to mapping at 1 inch = 200 feet) as well as compressed images, distributed to each of 100 counties. The data will also be available to the public as map services and downloadable files from *NC OneMap*. **The exciting outcome of this project is that consistent high-resolution imagery will be available for the entire state for the first time ever.** In addition to its value to emergency responders at all levels of government, the imagery will serve as a fundamental data layer for numerous other applications by government and the private sector.

This massive project would not have been successful without the effort and cooperation of the project partners, the GICC’s active user committees, and the cooperation of the NC GIS community. The effort exemplifies the value and benefit of the GICC model for fostering collaboration among government agencies, universities, and the private sector.

The SMAC’s Working Group for Orthophotography Planning is preparing a Business Plan for Orthophotography, which will define the business case for statewide orthoimagery, a fundamental building block for many other GIS data layers. The plan, which will include costs, benefits, and recommended approaches for future projects and funding, will be presented to the GICC at its November 2010 meeting.

Statewide GIS Strategy

The GIS Study Report and the State Geographic Information/Consolidation Implementation Plan tasked the GICC through the Management and Operations (M&O) Committee with the responsibility of setting and managing the Statewide GIS Strategy. In 2010, the M&O initiated efforts to prepare a Statewide GIS Strategy.

NC OneMap Vision and Characteristics. The M&O reviewed and revised the *NC OneMap* vision and characteristics, first adopted in 2003. The revised version was adopted by the GICC in May 2010.

NC OneMap Data Themes. When first established, 37 priority data themes were identified as the primary focus of *NC OneMap*. The M&O, with support from the GICC's SGUC, LGC, FIC and SMAC, updated the list of priority data themes. The revised list will serve as the foundation for a key component of the Statewide GIS Strategy – identifying resource requirements and establishing statewide GIS roles and responsibilities for maintaining priority data themes.

NC OneMap Technology Revitalization. S.L. 2009-451, passed by the NC General Assembly in 2009, formally called for Geographic Information Consolidation, finding “that there is a critical need for consolidating the investments made in geographic information systems and developing common infrastructures in order for the State to reap all the potential benefits of geographic information systems at the lowest cost.” This legislation calls for revitalizing *NC OneMap* by leveraging new technology in the market to reduce costs while increasing utility of the service and reducing geographic information systems data layer costs through singly managed contracts. The State Chief Information Officer (SCIO) assigned a project manager to lead the *NC OneMap* Technology Revitalization effort. Working in collaboration with the M&O and the GICC's TAC, the project team will assess user requirements, analyze alternative solutions, and recommend implementation and funding strategies. The outcome of this effort will drive the preparation of the Statewide GIS Strategy.

S.L. 2009-451 did not provide funding for revitalizing *NC OneMap*. The pre-planning activities, described above, are critical to defining a direction and identifying resource requirements. These activities have been conducted by volunteer support from Council standing committees, made up of members of the statewide GIS community, with support from CGIA staff and a part-time project manager. The pre-planning is a necessary initial step, but fully defining the requirements for revitalizing *NC OneMap* and implementing final recommendations will require new funding.

Transition to Office of the State Chief Information Officer

S.L. 2009-451, passed by the NC General Assembly in 2009, transferred CGIA to the Office of the SCIO and established appropriated funding for staff activities supporting the GICC, statewide standards, and the coordination of data acquisition. A critical aspect of the transition was the migration of the *NC OneMap* service and data download site from servers at CGIA's former location to virtual servers in the Office of Information Technology Services, Eastern Data Center. The transition of CGIA to the Office of the SCIO is now complete and includes the physical relocation of the CGIA's Raleigh and Asheville offices.

Revision to the GICC Bylaws

To reflect the direction set forth in S.L. 2009-451 and to address developments since 2002, the GICC began a process to revise its bylaws. Among the intended changes are a section that addresses attendance, in response to the Governor's rules on Boards and Committees; a section that clearly defines the responsibility of Council members regarding potential conflicts of interest; and clarifications on the role of standing committees and working groups.

State and Local Governments Share and Leverage Data Resources

NC OneMap Services. Digital geographic information is created and used extensively by state and local governments to conduct their daily business. Every government agency uses data produced by other agencies, and many rely on *NC OneMap* (www.nconemap.gov) as a data distribution point and service provider. In addition, private and nongovernmental organizations are increasingly frequent users of geospatial datasets managed by public agencies. *NC OneMap* provides access to 373 data layers (lines, points, and areas) as downloadable files and/or map services (instances of datasets that are served over the Internet as map images). About one-fourth (88) of the layers are stored by CGIA, and the remainder are hosted on servers across the state. The *NC OneMap* file download site attracted about 3,000 visitors per month during the year.



Local government high-resolution orthoimagery (i.e., aerial photography), the most requested data used by all government agencies, utilities and the private sector, is also distributed through *NC OneMap*. There are 140 imagery data sets from 90 counties (some sharing aerial photography from multiple time periods) and four metropolitan areas currently available for download. When the statewide imagery project, funded by the NC 911 Board, is complete, users will be able to download 2010 imagery for all 100 counties. Data users with GIS software can download the files onto their computers or access the data as map services. The website enables people to browse this photography without GIS software.

The *NC OneMap* team completed several tasks to improve the performance of *NC OneMap*. These include 1) a map service validation tool that will report when a local map service is down and enables notification of partners; and 2) improvements to the data download and data discovery capabilities. In addition, the *NC OneMap* viewer was updated to include U.S. National Grid (USNG) coordinates. The USNG is a spatially based, operational framework to report locations for evacuation, search and rescue, and recoveries. The USNG is linked to the Military Grid Reference. Changes to the *NC OneMap* viewer are on hold until the *NC OneMap* Technology Revitalization project team and the GICC's TAC make recommendations for enhancements.

Working Group for Seamless Parcels. The SMAC’s Working Group for Seamless Parcels (WGSP) received a \$500,000 grant from the Environmental Protection Agency to initiate the process of constructing a statewide parcel data set. The purpose of the grant is to help North Carolina local governments standardize their cadastral (property boundary) data and share it with state, tribal, and federal agencies using an open source platform. A critical task is the development of a data transformation tool to assist local data stewards with converting their data into common formats. Tom Morgan, co-chair of the WGSP and the Land Records Manager for the Land Records Management Section in the Office of the Secretary of State, was designated as North Carolina’s cadastral coordinator with the Federal Geographic Data Committee (FGDC).

Working Group for Roads and Transportation. The SMAC’s Working Group for Roads and Transportation (WGRT) received a \$75,000 grant from the FGDC to facilitate the sharing of roads data between regional planning organizations, local governments, state agencies, and the public through *NCStreetMap*, an online tool developed in 2009 that allows data stewards and government data requestors to easily access the same data repository to upload and download data. WGRT and WGSP are collaborating on the development of a data transformation tool that may support both initiatives.

Geospatial Data Archiving. Under a grant from the Library of Congress, CGIA and the North Carolina State Archives lead a project called Geospatial Multistate Archive and Preservation Partnership (GeoMAP), which pairs state government archives staff with geospatial experts to analyze the issues surrounding the preservation of “at risk” geospatial content. In collaboration with the states of Kentucky and Utah, the project team is investigating the policies, process, inventory, technical infrastructure, storage capacity, and funding issues involved in ensuring long-term access to geospatial data. CGIA and State Archives successfully transferred geospatial datasets from *NC OneMap* to an archiving tool for user discovery and access.

Return on Investment Study

The FGDC awarded a \$50,000 grant to CGIA to apply a formal return-on-investment (ROI) methodology to an Interagency Leadership Team (ILT) project in Lenoir County. The ILT is a consortium of eleven state and federal agencies. The mission of the ILT is to balance mobility, natural and cultural resource protection, community values, and economic vitality in support of the team’s missions. The ILT identified a “comprehensive, shared GIS database” as a foundational resource to support the complementary missions of state and federal agencies in North Carolina. The ILT is currently supporting a \$500,000 GIS pilot project in Lenoir County to validate a business case to support streamlined transportation planning.

The ROI methodology will be used to assess the value of GIS data available through *NC OneMap*, resulting in the following deliverables:

- ROI study for the ILT project, including a description of the project, data metrics and completed ROI worksheets
- Financial analysis summary
- Report describing the results and documenting a methodology that can support other geographic information technology projects in North Carolina

The project outcome should be a quantitative assessment that demonstrates the return on investment for geospatial data development and maintenance efforts that the state has not previously been able to document. Upon completion in 2011, the results will be shared with the General Assembly and the Office of State Budget and Management.

Clarifying Geographic Data Collection by Local Governments

In recent months, the NC Board of Examiners for Engineers and Surveyors (NCBELS) and the GICC requested advisory opinions from the NC Department of Justice concerning GIS data collection by local governments.

The issue was whether certain GIS data collection activities of local governments (i.e., counties, cities, towns, and regional councils of governments) are included in, or exempt from, the North Carolina Engineering and Land Surveying Act: Chapter 89C of the General Statutes.

In April 2010, the Department of Justice issued an advisory opinion that the collection of GIS data by an employee of the State of North Carolina, any political subdivision of the State or a municipality while engaged in that activity in the course of their employment does not constitute surveying without a license. In a second advisory opinion, the Department of Justice stated that this conclusion also applies to regional councils of governments, so long as those entities are authorized by resolution of their member governments. Therefore, the collection of GIS data by local governments does not violate Chapter 89C of the General Statutes since local governments are exempt via the government exemption.

For details on the background of this issue and the advisory opinions of the Department of Justice, please read the documents posted at the GICC website and additional information on the NCBELS website:

- <http://ncgicc.org/Committees/SurveyorsModelLawWorkingGroup/tabid/421/Default.aspx>
- <http://www.ncbels.org>

Standards

The State Geographic Information/Consolidation Implementation Plan tasks the GICC with creating and updating GIS standards. In 2010, the GICC established a process for creation, assessment, update and adoption of standards. This document will guide the GICC, the GICC's SMAC and CGIA regarding 1) standards created and updated by the GICC; and 2)

other state or federal standards suitable for adoption by the GICC. The GICC adopted or addressed the following standards in FY 2009-10.

North Carolina Technical Specifications for Digital Orthophoto Base Mapping. Last amended in 2004, this revision of the standard addresses the use of digital cameras, photo control points, and horizontal accuracy and other specifications required for creating orthoimagery. The Secretary of State approved the specifications in August 2009, and the GICC adopted the specifications later that month. The standard was applied to contracts and work orders for the statewide orthoimagery project in 2010.

United States Thoroughfare, Landmark, and Postal Address Data Standard. The FGDC conducted a public review of the draft United States Thoroughfare, Landmark, and Postal Address Data Standard. The GICC's SMAC convened a subcommittee of state and local government representatives to craft a formal SMAC response to the proposed standards. In addition, the GICC's LGC used its LGC Alert process to notify and encourage the local government GIS community to submit comments during the public review process. Once the addressing standard is adopted by the FGDC, the GICC will review the new standard and determine whether it is suitable for adoption in North Carolina.

Geographic Data Content Standard for Water Distribution Systems and Sanitary Sewer Systems. The GICC adopted this standard in 1997. The LGC recognized that the standard is now dated and may need to be updated and perhaps officially revised by the Council. The SMAC convened a small subcommittee of individuals who are knowledgeable in the water and sewer utility area. The subcommittee is reviewing the standard and will make recommendations for changes.

Geographic Data Content Standard for Transportation Roads Data. The GICC adopted this standard in 2005. In 2009, the SMAC's WGRT created *NCStreetMap*, an online tool that allows data stewards and government data requestors to easily access the same data repository to upload and download data. The WGRT recognized the need for attribute fields to support geocoding or address matching applications that allow for routing of vehicles. Because of variations at state and local levels, there is a need for a common schema for street centerlines across North Carolina that includes road-line connectivity. The WGRT has identified a core list of attribute fields and is reviewing the standard with the expectation of recommending revisions to the current standard.

Enterprise License Agreement

In 2005, the Office of Information Technology Services (ITS) successfully negotiated an Enterprise License Agreement (ELA) with Environmental Systems Research Institute (ESRI), a software vendor that provides products for developing, managing, and viewing geographic information. The previous ELA expired in June 2010. The Office of the State Chief Information Officer invited representatives from the GICC's SGUC and the GICC's LGC to participate in the negotiations to develop a new five-year agreement with ESRI.

The agreement was signed in July 2010. The agreement includes items for both state and local government GIS users and represents a great value to the State. Executive branch agencies will continue to have unlimited use and access to ESRI software at a fair price. During year one of the agreement, the Information Technology Fund will pay \$300,000 of the \$600,000 cost of the agreement. Based on the inventory of licenses, executive branch agencies were allocated the cost of the remaining \$300,000. In years two through five of the agreement, state departments will cover the full cost through their respective budgets. For local governments, there is a master purchase agreement and forgiveness of back maintenance for jurisdictions that have not been able to keep current with their software maintenance. In addition, every K-12 school system in the state will be able to receive an enterprise license of ESRI software free of charge.

Communication and Outreach

Professional Meetings and Events. GICC initiatives, including the statewide orthoimagery project, archiving and preservation of geospatial data, the activities of the SMAC's WGRT as well as *NC OneMap* were promoted in numerous venues around the state. Staff, along with Council and committee members, presented at the NC Digital Government Summit and at meetings sponsored by the North Carolina Property Mappers Association, the NC Chapter of the American Society for Photogrammetry and Remote Sensing, the North Carolina Arc Users Group, the Mountain Region GIS Alliance, the Charlotte-Mecklenburg GIS User Group, the UNC Asheville National Environmental Modeling and Analysis Center, the Chapel Hill/Orange County GIS User Group, the Albemarle Regional GIS, the Advanced Real Property Seminar, the State Data Center, and the NC Chapter of the National Emergency Numbering Association.

On the national front, staff presented at conferences and meetings of the National States Geographic Information Council, the Library of Congress, and the ESRI Annual Users Conference.

GIS Day, November 18, 2009. GIS Day is an international event sponsored by numerous agencies and professional associations. As in recent years, numerous map displays, events and school presentations sponsored by local state governments occurred across North Carolina on GIS Day.

Website. The GICC (www.ncgicc.org) and *NC OneMap* (www.nconemap.com) websites are widely used by committee members and the public to keep current on initiatives, meetings, opportunities and news about both the GICC and *NC OneMap*. A new feature was added to both websites. "*GIS in NC – Who? What? Where?*" provides information of interest to GIS users in North Carolina, including lists of county and city GIS contacts and a calendar of events.

Section III. Action Plan for 2010-11

The GICC will pursue a combination of activities to achieve its mission in FY 2010-11. The goals for the coming year continue to be driven by the recommendations called for in the GIS Study Report and further referenced in the State Geographic Information/Consolidation Implementation Plan, as well as ongoing, high-priority actions that the GICC has planned based on quarterly Council meetings and committee work.

The GICC will continue to pursue implementation of the 21 recommendations in the coming year as called for in the Implementation Plan. Some of these have been accomplished with no further action needed. Others will require additional work and follow-up actions to achieve. Still others will require the GICC to seek additional guidance from the General Assembly, the Office of State Budget and Management (OSBM), and the General Assembly Fiscal Research Division. See Appendix C: GIS Consolidation/Implementation Plan Status for detail by recommendation. Actions for 2010-11 include:

Preparation of the Statewide GIS Strategy

Under the direction of the GICC's M&O Committee, CGIA will prepare a draft Statewide GIS Strategy to present to the Council. All framework layers defined in the Statewide GIS Strategy will have identified custodians, costs associated with development and maintenance, and potential funding sources for data enhancement. A business plan for orthoimagery will inform the strategy. Other elements in the Strategy will relate to the Vision for *NC OneMap*, enterprise approaches to software and services, methods for achieving project consistency, application of data standards, best practices in data and applications, and ways to extend the benefits of investments in geospatial data, technology, and practitioners.

Adoption and Promotion of Standards

In 2010, the GICC established a process for creation, assessment, update and adoption of standards. This document will guide the GICC, the SMAC and CGIA regarding 1) standards created and updated by the GICC; and 2) other local, state or federal standards suitable for adoption by the GICC.

1. The Council will follow this plan to revise and adopt two standards currently under review:
 - The Geographic Data Content Standard for Water Distribution Systems and Sanitary Sewer Systems
 - The Geographic Data Content Standard for Transportation Roads Data
2. The Council will collaborate with state agencies and counties and municipalities to promote the adoption and implementation of Council approved standards. Outreach and technical assistance are needed at the state, regional, and local government levels, and with the private sector, which will result in adoption of standards. The end result is

a more robust data resource served through *NC OneMap* and a better understanding among stakeholders about the value of standards.

3. The SMAC and the Council will apply the plan to consider adoption or revision of other standards that are brought to the attention of the Council.

Plan for *NC OneMap* Technology Revitalization

Complete the ongoing requirements analysis to revitalize the technology and data used to achieve the *NC OneMap* vision. The GICC's M&O Committee and the GICC's TAC, with support from the user committees, made significant progress in FY 2009-10 on this effort. The M&O will produce a plan that includes:

- A revised *NC OneMap* vision and characteristics that will reaffirm the conceptual foundation for *NC OneMap*
- Identification of requirements, to the extent that this can be accomplished with volunteers, for system development, architecture, data discovery and search and associated activities to ensure that *NC OneMap* meets the needs of the user community
- A list of enhancements that can be developed and implemented by CGIA staff without additional resources
- Funding and other resources required to fully implement the revised *NC OneMap* vision

The plan will reflect the volunteer work of the GICC's standing committees with support from CGIA and ITS staff in the pre-planning effort. Fully defining the requirements for revitalizing *NC OneMap* and implementing final recommendations will require new funding.

Business Plan for Orthoimagery

In 2010, funding support from the NC 911 Board enabled the acquisition of high-resolution orthoimagery (digital aerial photography) for a single time frame for all 100 counties for the first time ever. Orthoimagery is the fundamental building block for many other GIS data layers. The SMAC and its Working Group for Orthophotography Planning began work in 2010 on a "Business Plan for Orthoimagery," which will define the business case for future orthoimagery production for North Carolina. The business plan will address aspects such as frequency of flights, geographic delineation and sequencing, potential options for funding on an ongoing basis, and the costs and benefits of this dataset. The business plan is scheduled for presentation to the GICC in November 2010.

Seek Federal and Other Funding Grants

The Council, CGIA and other agencies will continue to seek federal and other grants to support Council initiatives. This approach is being pursued throughout state government agencies. There have been successes in obtaining federal funds to support GIS activities statewide. With a Statewide GIS Strategy in hand, a more coordinated effort to pursue federal grants could be achieved to significantly increase the chances of further success.

Review Information Technology Projects

CGIA will support the Office of the SCIO through the Enterprise Project Management Office (EPMO) in the review of Information Technology Projects using GIS to ensure no cross state government agency duplication and ensure that the business case has been made for the requested investment. If multiple projects are addressing the same problem, then an enterprise offering should be considered, coordinated and/or built by CGIA. The goal is to determine whether the project follows GICC standards, does not duplicate other state efforts, and represents the best value for the State of North Carolina.

Note: This task was defined by Recommendation #20 in the State Geographic Information / Consolidation Implementation Plan that was approved by the General Assembly and included as a provision in the 2010 budget bill (S.L. 2010-31), representing a path forward for GIS in North Carolina.

Revise Bylaws of GICC and Standing Committees

The GICC is working on an update of its bylaws. Staff will work with the standing committees to revise their bylaws, to bring them in line with revised GICC bylaws adopted by the GICC.

Ongoing GICC Actions

In addition to the actions cited above from the State Geographic Information/Consolidation Implementation Plan, the following actions are planned and listed as high priorities of the GICC and staff. These actions fall under one of several priority categories:

- Data Acquisition and Maintenance
- Standards and Best Practices
- Clearinghouse and Inventory
- Outreach and Event Planning

Best Practices and Development of Statewide Datasets. The Council is working through its committee structure in three areas: seamless parcel boundaries, statewide roads, and archival and long term preservation and access to geospatial data. For **seamless parcels**, the Council will look to one of its working groups that received an EPA grant to develop a foundation for a seamless parcels data layer for North Carolina. Parcel boundaries will be more readily available to potential users in a standard way as a result of this grant.

The effort behind **statewide roads** involves all of the key stakeholders in developing a consistent set of information to be shared by data producers in local governments throughout North Carolina with potential users. This is coupled with development of an enhanced road centerline standard to increase functionality, data integrity, quality, and to provide improved guidance to producers. A working group of the GICC received a federal grant to implement this objective.

A third key activity is handling of **archival geospatial data for long-term preservation and access**. A multi-year grant from the Library of Congress has funded an effort to pursue this

goal. This is very timely, as digital data is created by many sources across North Carolina and the era of the paper map as an original source is evolving into a digital source and product. The Council and its subcommittees are investigating and developing guidelines and suggested best practices for government agencies to support preservation of geospatial data and to aid in updates to records retention schedules.

Clearinghouse and Inventory. One key mission of the GICC is to enable better access to geospatial data developed in the public sector by many data producer agencies. Historically, it has been difficult to know what data is available and how to obtain it. The *NC OneMap* initiative was adopted as a direction by the GICC in 2003 to pursue greater availability and access to this data. The *NC OneMap* data resource and inventory have been developed gradually in recent years to address the availability and access issues. The GICC will continue to seek full participation by local governments and state agencies in posting data to *NC OneMap* and providing information for the *NC OneMap* GIS inventory.

Outreach and Event Planning. Outreach efforts are critical for sharing the GICC mission, goals, current activities, and plans. GICC committees and staff will redouble their efforts to share knowledge about standards, best practices, opportunities for cost-sharing, and participation in *NC OneMap*. This will be achieved through participation in local, regional, and statewide meetings, and further enhancements to the GICC and *NC OneMap* websites. GICC members, committees, and staff are also active in national organizations and meetings. Finally, CGIA staff and other members of the statewide GIS community will organize and convene the 2011 NC GIS Conference. This biennial meeting brings over 800 professionals together to share their GIS efforts and facilitates significant information transfer and learning. The event is scheduled February 16-18, 2011, at the Raleigh Convention Center. In addition, the GICC, CGIA and GIS users will seek an opportunity to display examples of geospatial data applications to the General Assembly in 2011 to showcase the value of the data, tools and practices in North Carolina.

Appendices

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Appendix A: 2009-10 Geographic Information Coordinating Council Members

Member	Title and Organization	Appointing Authority
Chair, Dr. Lee Mandell 5124 Melbourne Rd. Raleigh, NC 27606-1748	Adjunct Professor, Ctr. for Public Tech. <i>School of Government, UNC-CH</i> 919/327-8112	Governor
Vice Chair, Bob Brinson 2020 Yonkers Road Raleigh, NC 27604	Chief Information Officer <i>Department of Correction</i> 919/716-3501	Governor
June S. Atkinson 301 N. Wilmington Street Raleigh, NC 27601	State Superintendent <i>Department of Public Instruction</i> 919/807-3430	Executive Office <i>Designee—Derek Graham</i> 919/807-3571
Erskine Bowles PO Box 2688 Chapel Hill, NC 27515-2688	President <i>UNC-Office of the President</i> 919/962-1000	Executive Office <i>Designee—Dr. Hugh Devine</i> NCSU 919/515-3682
Rodney Bunch PO Box 39 Elizabeth City, NC 27907	Assistant County Manager <i>Pasquotank County</i> 252/335-5177	Governor <i>(for County Government)</i>
Lanier Cansler 2001 Mail Service Center Raleigh, NC 27699-2001	Secretary <i>Dept. of Health and Human Services</i> 919/733-4534	Executive Office <i>Designee—Melodee Stokes</i> 919/855-4401
Moses Carey, Jr. 1301 Mail Service Center Raleigh, NC 27699-1301	Secretary <i>Department of Administration</i> 919/807-2425	Executive Office <i>Designee—John Cox</i> 919/807-4674
Gene Conti 1501 Mail Service Center Raleigh, NC 27699-1501	Secretary <i>Department of Transportation</i> 919/733-2520	Executive Office <i>Designee—John Farley</i> 919/707-2151
John Correllus 4329 Mail Service Center Raleigh, NC 27699-4329	Director, Business Intelligence <i>Dept. of Commerce, Policy Division</i> 919/715-2358	Appointed by GICC Chair <i>Chair, State Government</i> <i>GIS Users Committee</i>
Keith Crisco 4301 Mail Service Center Raleigh, NC 27699-4301	Secretary <i>Department of Commerce</i> 919/733-3449	Executive Office

Member	Title and Organization	Appointing Authority
Edward S. Finley, Jr. 4325 Mail Service Center Raleigh, NC 27699-4325	Chair <i>NC Public Utilities Commission</i> 919/733-4249	Executive Office <i>Designee—Bliss Kite</i> 919/733-0854
Jerry Fralick PO Box 17209 Raleigh, NC 27609	State Chief Information Officer <i>Information Technology Services</i> 919/754-6575	Executive Office <i>Designee—George Bakolia</i> 919/754-2980
Dee Freeman 1601 Mail Service Center Raleigh, NC 27699-1601	Secretary <i>Dept. of Environment & Natural Res.</i> 919/715-4101	Executive Office <i>Designee—Mary Penny Thompson</i> 919/715-0691
John M. Gillis, Jr. 128 S. Churchill Dr. Fayetteville, NC 28303	Farming and Land Development <i>Gillis Group Partnership</i> 910/308-4255	NC Senate
William D. Gilmore 1652 Mail Service Center Raleigh, NC 27699-1652	Director <i>Ecosystem Enhancement Program</i> 919/715-1412	Governor <i>(for At Large State Agency)</i>
Ellis Hankins PO Box 3069 Raleigh, NC 27602	Executive Director <i>NC League of Municipalities</i> 919/715-4000	Executive Office <i>Designee—Ryan Draughn</i> 919/715-2915
Kelly Laughton 241 Freeman Creek Rd. Zirconia, NC 28790	Consultant <i>Acumen IT</i> 864/751-3333	NC Senate
Kenneth Lay 4501 Mail Service Center Raleigh, NC 27699-4501	Secretary <i>Department of Revenue</i> 919/733-7211	Executive Office
Elaine F. Marshall PO Box 29622 Raleigh, NC 27626-0622	Secretary of State <i>Office of Secretary of State</i> 919/807-2008	Executive Office
Herb McKim 243 N. Front St. Wilmington, NC 28401	President <i>McKim and Creed, Inc.</i> 910/343-1048	NC House of Representatives

Member	Title and Organization	Appointing Authority
Joe McKinney 339 New Leicester Hwy, #140 Asheville, NC 28806	Executive Director <i>Land of Sky Regional Council</i> 828/251-6622	Governor <i>(for Lead Regional Organizations)</i>
Anne Payne PO Box 550 Raleigh, NC 27603	GIS Database Administrator <i>Wake County</i> 919/856-6383	Governor <i>(for General Member)</i>
Charles Perusse 20320 Mail Service Center Raleigh, NC 27699-0320	State Budget Director <i>Office of State Budget & Management</i> 919/807-4700	Executive Office <i>Designee—Sarah Porper</i> 919/807-4775
Jeremy Poss PO Box 908 Pittsboro, NC 27312	GIS Coordinator <i>Chatham County</i> 919/545-8469	NC House of Representatives
Steven D. Puckett 5314 Highway 55, Suite 104 Durham, NC 27713	SD Puckett & Associates <i>Past President, NC Society of Surveyors</i> 919/544-7717	Governor
Dr. R. Scott Ralls 5001 Mail Service Center Raleigh, NC 27699-5001	President <i>Department of Community Colleges</i> 919/807-6950	Executive Office <i>Designee—Saundra Williams</i> 919/807-6977
Dr. Linda Rimer 4930 Old Page Road Mail Code: C304-05 Durham, NC 27703	Region 4 Liaison to NC and SC <i>US Environmental Protection Agency</i> 919/541-0785	Federal Representative
Colleen Sharpe PO Box 590 Raleigh, NC 27602	GIS Manager <i>City of Raleigh</i> 919/516-2520	Governor <i>(for Municipal Government)</i>
Julie Stamper 206 E. Main St. Elizabeth City, NC 27909	GIS Coordinator <i>Pasquotank County</i> 252/331-2336	Chair, Local Government Committee
Richard Taylor 3810 Mitchell Circle New Bern, NC 28562	Executive Director <i>NC 911 Board</i> 919/754-2942	NC Senate

Member	Title and Organization	Appointing Authority
David Thompson 215 N. Dawson St. Raleigh, NC 27603	Executive Director <i>NC Assoc. of County Commissioners</i> 919/715-2893	Executive Office <i>Designee—Rebecca Troutman</i> 919/715-2893
Steve Troxler 1001 Mail Service Center Raleigh, NC 27699-1001	Commissioner of Agriculture <i>Dept. of Agriculture & Consumer Srvs.</i> 919/733-7125	Executive Office <i>Designee—Daniel Madding</i> 919/807-4344
Ron York PO Box 1006 Charlotte, NC 28201-1006	Principal Consultant – GIS Strategies <i>Duke Energy Power Delivery</i> 704/382-2158	NC House of Representatives
Reuben Young 4701 Mail Service Center Raleigh, NC 27699-4701	Secretary <i>Dept. of Crime Control and Public Safety</i> 919/733-2126	Executive Office

Appendix B: NC Geographic Information Coordinating Council Establishing Authority and Precedent

The North Carolina Geographic Information Coordinating Council was established by Senate Bill 895 in August 2001 and was incorporated in the General Statutes §143-725 through 143-727.

The purpose of the Council is to develop policies regarding the utilization of geographic information, geographic information systems (GIS), and other related technologies. The Council is responsible for the following:

- Strategic planning,
- Resolution of policy and technology issues,
- Coordination, direction, and oversight of State, local, and private GIS efforts, and
- Advising the Governor, the General Assembly, and the State's Chief Information Officer as to needed directions, responsibilities, and funding regarding geographic information.

The Council is charged with statewide geographic information coordination and fosters cooperation among state, federal, tribal, and local government agencies; academic institutions; and the private sector in order to improve the quality, access, cost-effectiveness and utility of North Carolina's geographic information and to promote geographic information as a statewide strategic resource.

Precedent. Prior to the enactment of legislation, the North Carolina Geographic Information Coordinating Council existed through Executive Orders issued by Governor James G. Martin and Governor James B. Hunt Jr. Executive Order No. 147 by Governor James G. Martin first established the Council in July 1991. Governor James B. Hunt Jr. issued Executive Order No. 16 in May 1993 that remained in effect until 2001.

Staff to the Council. The Center for Geographic Information and Analysis (CGIA), located in the Department of Environment and Natural Resources and formerly attached to the Office of the Governor, staffs the Council. CGIA manages and distributes digital geographic information about North Carolina maintained by numerous State and local government agencies. It operates a service bureau, a statewide data clearinghouse, and manages the *NC OneMap* program, which provides Internet access to State and local government through the *NC OneMap* website and file transfer protocol (FTP) geospatial data distribution site.

Changes Resulting from S.L. 2009-451. Through S.L. 2009-451, which was approved on August 7, 2009, certain changes were made via Section 6.8 regarding "Geographic Information Consolidation." Those changes are listed below with language taken directly from the session law.

SECTION 6.8.(a) Findings. – The General Assembly finds that there is a critical need for consolidating the investments made in geographic information systems and developing

common infrastructures in order for the State to reap all the potential benefits of geographic information systems at the lowest cost.

SECTION 6.8.(b) Implementation Plan. – The recommendations outlined in the 2008 legislative report prepared by the State Chief Information Officer, the Geographic Information Coordinating Council, and the Office of State Budget and Management, made pursuant to Section 6.13 of S.L. 2008-107, entitled "State Geographic Information Consolidation Implementation Plan," shall be implemented in four distinct work streams, as follows:

- (1) Transferring the Center for Geographic Information and Analysis to the Office of the State Chief Information Officer and establishing appropriated funding for staff activities supporting the Geographic Information Coordinating Council, statewide standards, and the coordination of data acquisition.
- (2) Reestablishing the professional services component and refocusing that effort toward current needs of the community while reducing those overhead costs.
- (3) Revitalizing the *NC OneMap* project by leveraging new technology in the market to reduce costs while increasing utility of the service.

SECTION 6.8.(c) Transfers of Agencies, Powers, Duties. – The statutory authority, powers, duties, functions, records, personnel, property, and unexpended balances of appropriations, allocations, or other funds of the State agencies and subunits listed in this subsection are transferred from those entities to the State Chief Information Officer, Office of Information Technology Services, with all of the elements of a Type II transfer as defined by G.S. 143A-6:

- (1) The North Carolina Geographic Information Coordinating Council.
- (2) The Center for Geographic Information and Analysis.

The Center for Geographic Information and Analysis shall remain in its current office space unless the State Chief Information Officer determines otherwise.

SECTION 6.8.(d) Center for Geographic Information and Analysis Coordination. – The State Chief Information Officer shall coordinate a professional services component for geographic information systems coordination with the Center for Geographic Information and Analysis that is refocused toward current community needs.

SECTION 6.8.(e) North Carolina Geographic Information Coordinating Council Coordination. – The State Chief Information Officer, in cooperation with the North Carolina Geographic Information Coordinating Council, shall coordinate the refocusing of the *NC OneMap* geographic information systems infrastructure project to leverage new technology, to increase the utility of geographic information systems services, and to reduce geographic information systems data layer costs through singly managed contracts.

SECTION 6.8.(f) Information Technology Fund. – The Information Technology Fund shall be used for the purpose of acquiring and managing, at the lowest cost, data layers useful to multiple State and local organizations, according to the priorities set by the North Carolina Geographic Information Coordinating Council. The Information Technology Fund may receive private grants

and may include State, federal, local, and matching funds. Any funding received for GIS may be used only for that purpose.

SECTION 6.8.(g) Geographic Information Systems Funding. – Of the funds appropriated in this act to the Information Technology Fund, the sum of seven hundred forty thousand dollars (\$740,000) for the 2009-2010 fiscal year and the sum of seven hundred forty thousand dollars (\$740,000) for the 2010-2011 fiscal year shall be used to effectuate the transfer of the Center for Geographic Information and Analysis, including the cost of moving personnel positions, as provided by this act.

Additional changes resulted from S.L. 2010-31, approved on June 30, 2010, whereby Section 6.9.(b) addressed review of information technology projects involving geospatial data and/or technology by CGIA. Those changes are listed below with language taken directly from the session law.

SECTION 6.9.(b) All State agencies shall coordinate any Geographic Information System (GIS) initiatives through the Center for Geographic Information and Analysis (CGIA) to ensure that they are not duplicating an existing function. The CGIA shall monitor and approve all new GIS-related information technology projects and expansion budget requests.

By January 1, 2011, the CGIA shall make a written report to the Joint Legislative Oversight Committee on Information Technology and to the Fiscal Research Division on the results of these efforts.

Appendix C: State Geographic Information / Consolidation Implementation Plan Status (November 2010)

See: http://www.scio.nc.gov/library/pdf/GIS_Study_Implementation_Plan.pdf.

	Description	What's Been Done	What's in Progress	What's Left
1	Task the GICC through the Management and Operations (M&O) Committee with the responsibility of setting and managing the Statewide GIS Strategy.	NC OneMap vision and characteristics reconfirmed by GICC; received feedback from stakeholders on data layer and functional requirements	Finalizing functional requirements; prioritization of data layers	Consider funding needs for data layer creation/update; consider roles and responsibilities; produce a Statewide GIS Strategy document.
2	Task the CGIA with the responsibility of coordinating the implementation of the Statewide GIS Strategy and GICC policies and standards for state government.	Progress dependent on completing Recommendation #1	N/A	N/A
3	Provide the GICC, through the M&O, and the CGIA with authority to: <ul style="list-style-type: none"> • Create and update GIS standards • Ensure that GIS related standards are implemented by state agencies • Collaborate with counties and municipalities to promote the adoption and implementation of GIS standards • Establish statewide GIS roles and responsibilities for all state agencies for updating framework plus other key data layers 	GICC SMAC has adopted a process for reviewing standards ready for full GICC	SMAC work plan will include which standards need to be either created or updated based on value to the stakeholder community.	Outreach needed to state and local government agencies; create roles and responsibilities based on agency missions and statutory authority. Will work within current SCIO policy development processes to ensure that GIS policies are implemented by state agencies.
4	Establish a GIS Reserve account, by which OSBM will have oversight to manage annual General Assembly appropriated funding for framework data plus other key data layers according to the priorities set by the GICC through the M&O Committee to agencies' data stewards.	Has not been initiated	N/A	Complete Statewide GIS Strategy and determine when GIS Reserve needs to be in place to support its implementation.
5	The GICC/CGIA, OSBM and the Agencies to identify both the existing and required recurring funds for framework data layer maintenance to establish the GIS Reserve account. The amounts must be netted out for any anticipated cost share from federal or local governments.	Has not been initiated	N/A	Dependent on completion of Statewide GIS Strategy and identification of roles and responsibilities and funding sources.

	Description	What's Been Done	What's in Progress	What's Left
6	Move the CGIA and all of its responsibilities (currently under DENR) to the State Chief Information Officer (CIO).	Completed in Sep 2009	N/A	N/A
7	Align the current CGIA Director to report directly to the State CIO.	Complete, Director reports to Senior Deputy State CIO	N/A	N/A
8	Leave agency GIS personnel in agencies.	Complete	N/A	N/A
9	Subject to inclusion in the Governor's Budget for 2009-10, appropriate funding for 7 CGIA positions.	Complete, funding provided through State IT Fund	N/A	N/A
10	Leave 11 positions as 'fee based' to support the development of multi state agency enterprise GIS product offerings.	Complete	N/A	N/A
11	Subject to inclusion in the Governor's Budget for 2009-10, appropriate funding for an additional OSBM position for GIS Reserve oversight.	Not funded, since GIS Reserve Account has not been created	Future consideration	Creation of position when needed to support handling of GIS Reserve funds.
12	Subject to inclusion in the Governor's Budget for 2009-10, appropriate funding for a system architecture plan and follow up with funding for implementation of that plan to complete the NC OneMap vision.	Not funded, but NC OneMap pre-planning effort initiated to make progress on sustaining the initiative; decision to pursue revitalization rather than produce system architecture plan; fresh look at functional requirements; issued request for information (RFI) to seek ideas from private sector	Final evaluation of RFI responses; prioritization of requirements	Submit expansion request to pursue revitalization of NC OneMap in the FY 2011-13 biennium.
13	GICC/CGIA and the Land Records Management Program (in the Department of the Secretary of State) should coordinate a statewide flyover for orthophotography both logistically and via funding across the different levels of government. This should be based on a four-year cycle to complete and maintain the statewide coverage.	Statewide Orthoimagery 2010 project funded by 911 Board grant to City of Durham; team includes both CGIA and Land Records Management Program; CCPS, DENR, and DOT also part of the team; GICC member committees also involved	Statewide project began in January 2010 and will be completed by June 2011 with free availability of orthoimagery through NC OneMap	Complete the project and distribute the data to county 911 operations and via NC OneMap.
14	GICC/CGIA and the Land Records Management Program should implement an aggregate cost share model with the Counties contributing 50%, the State contributing 25% and the Federal Government contributing 25% for the leaf-off product based on the Technical Specifications for Digital Mapping (Orthophotos) GS 102-17, Land Records Management Division, North Carolina Secretary of State, as adopted by the GICC.	Preparation of "Business Plan for Orthoimagery in NC" which addresses technical, management, and potential funding alternatives for future years	Further consideration of funding percentages needs to be evaluated	GICC approval of the Business Plan and approach to making the plan operational

Description	What's Been Done	What's in Progress	What's Left
15 Consideration should be given regarding the 50% County participation to ensure counties with very high growth, which require more frequent orthophotography, pay more of a share versus counties with little to no growth, which should pay a much smaller to no share of the cost.	Considered as part of preparation of the Business Plan; possibly too complex to implement	Consideration of Business Plan by GICC	Implementation of the Business Plan, especially distribution of funding responsibilities
16 Subject to inclusion in the Governor's Recommended Budget for 2009-2010, appropriate 25% (or \$635,625) to the GICC for the State's participation and/or	Superseded for 2010 by statewide funding provided through 911 Board	N/A	N/A
17 Request 911 Board to review the language pertaining to the 911 Fund to consider specifically allocating monies for the State flyover.	Completed	N/A	N/A
18 GICC via the NC Department of Crime Control and Public Safety (CCPS) should seek Homeland Security Grants to augment GIS.	Has not been initiated	N/A	N/A
19 Agencies/GICC/CGIA should continue to aggressively seek federal funding grants to fund GIS projects in addition to orthophotography flyovers.	Ongoing effort by agencies participating on the GICC	GICC and CGIA continue to explore Federal funding possibilities with other state agencies and organizations	Need to match up federal funding opportunities with the needs expressed in the Statewide GIS Strategy once it is in place
20 Information Technology Projects using GIS should be reviewed by CGIA to ensure no cross state government agency duplication and ensure that the business case has been made for the requested investment. If multiple projects are solving the same problem, then an enterprise offering should be considered, coordinated and/or built by the CGIA.	General Assembly directed this work through S.L. 2010-31, sec. 6.9 and CGIA now looks at GIS-related IT projects	Review of projects is ongoing as submitted by state agencies	Report to General Assembly and Fiscal Research by January 1, 2011; potential for folding project needs into the overall Statewide GIS Strategy
21 State Agencies should evaluate consolidation opportunities to reduce the number of servers if and where appropriate.	As part of Recommendation #6, CGIA migrated and consolidated all GIS data and applications on its independent servers to the ITS managed server service	N/A	N/A