



North Carolina
Geographic Information Coordinating Council

Minutes
May 14, 2008

PRESENT

Chair, Dempsey Benton. Members: Ken Ashe (for John Dorman), John Correllus, John Cox, Dr. Hugh Devine, Jim Dolan, John Gillis, Derek Graham, Tom Gray, Bill Holman, Susan Johnson, Bliss Kite, Bill Laxton, Janet Lowe (for John Farley), Dan Madding, Dr. Lee Mandell, Elaine Marshall, Herb McKim, Joe McKinney, Doug Newcomb (for Mary Combs), Anne Payne, Jeremy Poss, Mark Prakke, Stephen Puckett, Colleen Sharpe, Julie Stamper (for Rodney Bunch), Richard Taylor, Dr. Bill Willis, and Ron York

PROCEEDINGS

A meeting of the Geographic Information Coordinating Council was held in the Board Room of the Department of Public Instruction in Raleigh, North Carolina. Chair Dempsey Benton called the meeting to order. He pointed out that each member was given a copy of the North Carolina Public Records Law in their packets. The pamphlet was published by the NC Press Association.

He acknowledged the service of the members appointed by the Governor, whose terms expire on May 31. Mr. Benton presented certificates to Bob Brinson, Rodney Bunch, Joe McKinney, Anne Payne, Stephen Puckett and Mary Combs. Two 6-year members, Susan Johnson who chaired the GIS Technical Advisory Committee and the Public Private Partnership *ad hoc* Committee, and Bill Holman who chaired the Statewide Mapping Advisory Committee and Data Sharing *ad hoc* Committee, were recognized for their leadership contributions. Mr. Benton recognized the service of Tom Gray, a Senate appointment, who will leave the Council in June. A certificate of appreciation was presented to Dr. Lee Mandell, a longtime member of the Council representing the North Carolina League of Municipalities, who is retiring in June. Dr. Mandell's successor, Carl Knapp will serve in his place at the next Council meeting.

Mr. Benton said the Governor's Budget for FY08-09 was just released and includes a provision for \$4 million in recurring funds and \$2.5 million in non-recurring funds in support of the GIS Study recommendations. The funds include money for data development and maintenance, eight positions at the Center for Geographic Information and Analysis (CGIA) and one position at Office of State Budget and Management. He said this was a significant day and thanked Jim Dolan for his effort on the GIS Study and recommendations. Mr. Benton said the Governor's budget includes major investments in the GIS infrastructure. He noted that many people deserve

credit, and he thanked the GICC members for their support and contributions to this effort and outcome.

The Minutes of the February 13, 2008 meeting were approved.

Status and Discussion of Priorities Before Council

Priority #1—NC OneMap Implementation

Mr. Tim Johnson reported on data layers that have been updated and are available as free downloads through NC OneMap. The updated layers consist of Natural Heritage Element Occurrences of Rare and Endangered Species, Significant Natural Heritage Areas, NC DOT street centerlines which used the data content standard adopted by this Council, Shellfish Growing Areas, Conservation Tax Credit Properties, and Public Schools and Non-Public Schools. A significant addition to NC OneMap is the county high-resolution orthophotography now available for free download from CGIA servers at the NC OneMap FTP site. Much of the imagery was acquired in recent years by counties that received support through the NC OneMap cost-share program, the Floodplain Mapping Program and the Landslide Hazard Mapping Program.

NC OneMap Ortho Server. Mr. David Giordano reported that people can access recent orthophotography from 61 separate counties as well as older orthophotography for many of those counties, for a total of 92 data sets. If a user just wants to browse the imagery, the Ortho Server function on the NC OneMap free FTP site provides that option. Future plans will allow users to locate an area of interest in a county, draw a box around it, and download that portion only. Also, the most recent county orthophotography is included in the NC OneMap viewer on the Internet. The orthophotography is available for use in any web service. Mr. Bill Holman inquired about the difference between Google Earth and the Ortho Server. Mr. Giordano replied that Google Earth does not allow any data downloads; whereas the Ortho Server does. Mr. Dan Madding also noted that you cannot “stream” Google services into a desktop application, and the ability to interactively use data from NC OneMap is a benefit. Mr. Giordano said that having older imagery offered through this capability is a step toward fulfilling the vision and characteristics of NC OneMap for access to historic and temporal data.

Mr. Johnson gave an update on the NC OneMapGIS Inventory. Two hundred-twelve agencies have registered and 171 of those agencies are data creators. More than 2,050 data sets are documented, which is a 14-percent increase in a year. Highlighting a few facts, Mr. Johnson said that 61 agencies indicated they had an Internet mapping system; 67 agencies created Federal Geographic Data Committee compliant metadata; 58 counties catalogued one or more of the seven Framework data layers [i.e., digital orthophotography, government boundaries, land ownership, transportation, geodetic control, elevation, hydrography]. He showed graphs of data completeness and update cycles for local orthophotography (93 local governments reporting); parcels (64 counties reporting); and street centerlines (71 responses). Some counties have not completed the inventory and the strategy is to fill in the gaps this coming year. The lack of FGDC metadata is still a problem throughout the state and a new approach needs to be identified.

Priority #2—Stream Mapping Project Status Report

Mr. Joe Sewash said CGIA staff are performing outreach in May through June to the 19 western counties in Phase 1. They are developing promotional materials to offer technical support on how to use this data. Staff are working on cost benefits of the Phase I project. US Geological Survey has assigned a new technical contact to North Carolina supporting the implementation of the North Carolina stream mapping data into the national data set. NC DOT and USGS recently funded a pilot project to test the use of the Phase I local-resolution stream data in *Stream Stats*, a USGS on-line tool used to characterize watersheds. Dr. Mandell asked if Phase II was budgeted in the Governor's new budget. Mr. Johnson responded that there was no specific item for the stream mapping project, but it was included in a listing of several key data sets for development and maintenance. Mr. Bill Laxton said the Department of Environment and Natural Resources had included \$700,000 in its expansion budget request for Phase II stream mapping work, but the Office of State Budget and Management said all data layers were to be consolidated within the Governor's budget of \$4.7 million for geographic data.

Priority #3—Archival and Long Term Access Working Group

Ms. Anne Payne, Chair of the Working Group, reported that the group has had three meetings and outlined the challenges. GIS workers are focused on data currency and do not think about keeping older data as an archive, which is the challenge. In discussing the final report outline, Ms. Payne said the Working Group will dovetail with the Library of Congress projects underway. The guidelines will be developed in the spirit of the Division of Archives in the Department of Cultural Resources for archival and retention, but are likely not to be the comprehensive solution. General best practices and specific content practices which can be implemented by GIS workers in the short term will be the main focus of the report. The draft of the report will be ready for the August 13, 2008 GICC meeting.

Dr. Mandell said there were three larger issues to be considered in this context: 1) retention of digital public records, uniformity and changes in public records will affect all digital objects; and 2) challenges with incomplete metadata. Ms. Payne replied that the committee saw two major metadata issues: retaining metadata for each data layer, and the fact that FGDC metadata standard does not address archival issues. Third, Dr. Mandell said value identification and business cases are important in the competition for funds and the priority it was given in the Governor's budget. Secretary Elaine Marshall said that placing emphasis on determining the value of these practices is important because local government staff operating the GIS for land records live in a temporal world and may not see long range archival benefits.

Priority #4—Surveyors' Model Law Working Group

Mr. Herb McKim, Chair of the Working Group, reported that they met with the NC Board of Engineers and Surveyors (NC BELS) to discuss data sharing, data accuracy, and data access. One unresolved issue involves when counties, cities and Councils of Government can gather data and then share it with other governmental units. Local government collection of data exclusively for its use is exempt from requiring a board certified surveyor. The NCBELS is looking at the rules regarding temporary or contract employees who gather GIS data, but are not paid directly by the local government. NCBELS says it can not issue a general rule; therefore, the Working Group will generate a list of GIS data layers that need oversight by surveyors to present to NCBELS for consideration.

Presentation: "NC Street Map"

Ms. Janet Lowe, NC Department of Transportation and member of the Working Group for Roads and Transportation (WGRT) under the Statewide Mapping Advisory Committee, spoke about the process and the new "NC Street Map" tool. Thirty-five organizations participated in the WGRT to help solve a problem in the exchange of transportation data between local governments and the state. Ms. Lowe said it was complex to share local street data: Each local data steward received lots of requests from numerous state agencies and, conversely, state agencies had to contact 100 counties whenever they needed an update to their roads data. She said these inefficiencies on both sides were documented by the Local Government Committee. The WGRT wanted to move to a better model that allows all data stewards and all data requestors go to the same place, a data repository, to upload and download data.

A grant from the National Highway Traffic Safety Administration was awarded in November 2006 to create a tool to achieve this result. Nominal local government data uploads would be streamlined every 6 months, or more frequently. CGIA is hosting the site. Beta testing began in April and the general release of the tool was May 14. The website is: www.ncstreetmap.net Data users can create an account, which must be approved by the manager. The manager will phone and verify account details and can edit users and make account changes. The local governments can upload street centerline data several ways: using shape files, zip files, or geodatabases. The bi-directional information is quick and easy to follow for those uploading or downloading data. State transportation data stewards will also post data here for download by local governments (e.g. data on the width of roads for turnaround space for firetruck routing; planning transportation corridors).

The local roads can also be tied to NC OneMap through an optional checkbox. This checkbox will eventually allow the uploaded data to be accessed and downloaded from the NC OneMap FTP site. Mr. Doug Newcomb asked if "NC Street Map" would also be a transactional web mapping service available to others. The answer was no. Dr. Bill Willis asked if the \$92,000 cost of implementation was the entire project cost. Ms. Lowe said it was the grant amount.

Mr. Jim Dolan asked why the checkbox was needed for linking local street data to NC OneMap. Ms. Lowe responded that some local governments are still uncomfortable with sharing data at this time. Mr. Dolan said that that is a problem and this is bifurcation with two systems. Dr. Willis asked if the "NC Street Map" application could be used for other data sets. Ms. Lowe replied that the grant focused on transportation, but the tool could be a template for other data layers. Dr. Mandell said the implications for local government data sharing are larger than streets.

Dr. Mandell inquired about the relationship of "NC Street Map" to the data sharing guidelines adopted by the GICC. Ms. Payne said the WGRT pre-dated the Data Sharing *ad hoc* Committee's work and recommendations. WGRT created a tool for government to share data within a secure system. Dr. Mandell noted that the challenges of data sharing remain, but if the "NC Street Map" tool is good, perhaps this will influence peers for broader data sharing so everyone gets the benefits. Mr. Johnson said the new tool for streets is a building block. Dr. Mandell asked about a process for bringing "NC Street Map" and the data sharing recommendations together. Dr. Hugh Devine asked if metadata for streets was addressed. Ms. Lowe said the purpose of the tool was focused on transportation and they did not want to restrict local

government from participation. If the local government had metadata, that was great, but many did not. The upload tool does ask about the metadata and it can be included in the upload.

Ms. Colleen Sharpe said some local governments have concerns because all data given to the state must be shared, and some governments prefer to sell their own data. Dr. Willis wondered if much local revenue is generated by data sales. Mr. Dan Madding said that the “NC Street Map” tool will save state agencies and local government considerable time since the upload and download function makes it easier to acquire data from multiple counties than through NC OneMap. Ms. Payne said the Data Sharing *ad hoc* Committee did not recommend a central data repository, which is different from a street centerline database. Ms. Sharpe said this process is moving data toward a central data repository, and we need to think about upstream and downstream. Dr. Willis inquired about bringing archiving into the process, and looking at overall cost. Mr. Newcomb said the NC OneMap model can be used to achieve that purpose. Data can be served to NC OneMap and a tool can be developed that supports consolidation, sharing and archival of the data.

Dr. Mandell remarked that NC OneMap was conceptualized as a decentralized network. Now, there is the new orthophotography repository and the streets data repository. Repositories are a way to share data, he stated, but we need to look at other local data sets that change continuously, thus requiring more time logging into and uploading data. Less human intervention is needed in the future. Mr. Benton asked if “NC Street Map” would have current road detours. Ms. Lowe said no. Ms. Lowe asked the GICC to send a letter to local governments to encourage participation in NC Street Map, and use email list services and the LGC and SGUC to conduct outreach.

ACTION 1 GICC to send a letter to local governments soliciting “NC Street Map” participation and communicate through appropriate list services.

Committee Reports

All Council committee representatives reported on their group’s activities.

Statewide Mapping Advisory Committee (SMAC). Mr. Bill Holman reported that the Committee met on April 9, 2008 with 19 people attending. They heard updates from the National Geospatial Programs Office, Floodplain Mapping Program, Streambed Mapping, NC OneMap and the NCSU Library of Congress Digital Preservation project. Mr. Holman mentioned that Dr. Wayne Walcott, University of Charlotte, is retiring this summer as chair of the NC Board on Geographic Names and that the SMAC will propose a formal process for selecting a new chair at the August GICC meeting. The next SMAC meeting is July 9, 2008.

Working Group for Orthoimagery Planning. Mr. Gary Thompson said the group met April 7. The draft white paper, “Traditional Aerial Film Camera vs. Digital Camera,” is in member packets for comments. The paper gives an overview and details the differences between film and digital cameras for orthophotography. It will help local government officials. Dr. Mandell suggested that the important decision points be summarized, and he recommended they be placed in the front of the paper.

Thirty-one counties flew orthophotography this winter with help from the NC OneMap cost-share program and the Floodplain Mapping Program. At this time, it appears that USGS cost-share funds will be available for up to seven counties, specified by USGS, in the 2008-2009 winter flying season. CGIA, the USGS National Geospatial Programs Office, the Floodplain Mapping Program and Secretary of State's Land Records Management Program met with the counties to encourage their participation.

Mr. Benton noted that the Governor's budget includes \$635,000 to cover a 25% state match for the acquisition of this imagery, and asked if the Working Group had given any thought on how that would be distributed. Mr. Thompson said the Working Group is looking at this. Mr. Dolan said the state share of orthophotography cost should be discussed by the GICC's Management and Operations Committee as directed in the GIS Study recommendations. Secretary Marshall asked if the \$635,000 was clearly designated for orthophotography acquisition. Mr. Dolan replied, yes.

The next USDA Natural Resources Conservation Service statewide flyover for leaf-on orthophotography will be summer 2008.

Regarding the aerial calibration range at NC A&T University, Mr. Thompson said there is a new technique for digital aerial camera calibration and USGS will help to configure the range.

Working Group for Seamless Parcels. Mr. Tom Morgan, co-chair of the Working Group introduced the other co-chair representing the North Carolina Property Mappers Association, Pam Carver of Henderson County, and mentioned the members of the committee. The purpose of the Working Group is to document the barriers and explore solutions for sharing parcel data, using the National Academy of Sciences' National Land Parcel Data document as a starting point. Members of the working group represent the Federal Interagency Committee, the Local Government Committee, the State Government GIS Users Committee, CGIA, and the FGDC Cadastral Committee. The first meeting will be held in June and the working group will identify issues concerning obstacles for participation in statewide seamless parcels, discuss overall benefits for participation in statewide seamless parcels, and develop a roadmap for success. He said the roadmap will include identification of layers, attributes, and metadata needed, and also the methods for data transfer. Mr. Morgan noted that the earlier discussion on roads is relevant to parcels.

North American Vertical Datum 1988 (NAVD88). Mr. Holman said a SMAC subcommittee is reviewing the NAVD88 vertical datum that replaced the 1929 vertical datum. Mr. Thompson said the newest vertical datum was completed in 1994, but North Carolina never officially adopted it. There is a Vertical Datum issue paper (#2) on the Floodplain Mapping website <http://www.ncfloodmaps.com/pubdocs/issuepapers.htm> for members to read. Mr. Thompson said there would be a motion to adopt the NAVD88 datum at the August GICC meeting and he asked for the GICC to seek comments from the various committees.

ACTION 2 State Government GIS Users Committee and Local Government Committee to review and comment on NAVD88 issue paper.

State Government GIS Users Committee (SGUC). Mr. John Correllus said the SGUC Executive Committee met four times to take a fresh look at their responsibility. At the general meeting on

April 17, the members discussed the mission, vision, goals and objectives that were drafted by the Executive Committee. The mission: To provide the collective voice of the leaders in the state government GIS community to influence and inform the utilization of geospatial resources. The vision: State agencies in North Carolina will fully utilize geospatial information in support of each agency's mission. Mr. Correllus summarized the five goals for the SGUC: Identify standards for acceptable GIS system architecture; Support GIS professionals; Support and sustain GIS-related enterprise license agreements; Self-sufficient training; Communication strategies and planning. He mentioned, for example, that self-sufficient training might include a workshop SGUC members could teach about preparing state databases for geocoding. He said a review of the FGDC metadata standard was added to the SGUC objectives. The members contributed ideas for topics and presentations at the general meetings. A SGUC list serve will be instituted this month to facilitate communication among state government GIS users.

Dr. Mandell mentioned that the objective on building base GIS skills for other state business professionals was good. He stated that continued use of NC OneMap and Google Earth to solve business problems, without knowing the best methodology, needs to be addressed with that group. Mr. Correllus said the SGUC will focus on training GIS analysts, but non-GIS people would benefit from knowing how common management tools, such as spreadsheets, can be geospatial enabled. Mr. Benton said that would benefit managers as well. Mr. John Gillis mentioned that case studies for land developers using GIS showed it can provide practical results. He suggested putting a case study in front of managers using GIS data. Dr. Willis said the SGUC Executive Committee is representing the state users very well.

Local Government Committee (LGC). Ms. Colleen Sharpe said the LGC met May 1. The LGC was tasked to take two assignments from the Public Private Partnership *ad hoc* Committee recommendations. One assignment was to discuss and consider incentives for local governments to adhere to standards. Ms. Sharpe said money is always helpful when asking local governments to do extra work. Outreach and education are also keys to demonstrating to city and county GIS workers the need to adopt standards. The LGC appointed a subcommittee, chaired by Amy Durden from Elizabeth City, to develop recommendations for incentives. The subcommittee report will be presented at the next GICC meeting.

The second assignment was to support the Secretary of State's efforts on digital recordation standards and expand standards to include digital submission of development plats/plans. Ms. Sharpe said she had a conversation with GICC member Herb McKim, a co-chair of the Public Private Partnership *ad hoc* Committee, to clarify the main issues. From a private sector standpoint, the problem is the currency of information pertaining to parcels and street centerlines. She remarked that "currency" is a business process in each county, therefore not consistent between counties. She noted that resolving policy issues will probably be more difficult than developing technical standards. The LGC felt it did not have the clout or expertise to tackle the larger business process issue, and suggested that a larger GICC committee be formed to look at processing, timing, and currency needs for the development review process, involving both developers and planners. Mr. Benton asked CGIA to follow up.

ACTION 3 CGIA to review information about digital recordation standards and digital submission and plan next steps.

Federal Interagency Committee (FIC). Doug Newcomb reported that the committee chair, Mary Combs, plans to circulate a letter to federal agencies on the ten recommendations for data sharing passed by the GICC. There is another letter being drafted to encourage federal agencies in North Carolina to actively participate in the FIC. Mr. Benton said that Mary Combs, whose term as chair of the Federal Interagency Committee expires at the end of May, will not be able to serve another term due to work commitments.

GIS Technical Advisory Committee (GIS TAC). Susan Johnson said the GIS TAC had no report.

Other Business

Floodplain Mapping Program. Mr. Ken Ashe said the statewide project continues and that 95 counties have their DFIRM maps, and all 100 will be complete by August. Money was received from the federal government to begin 29 county updates to the DFIRM maps. Floodplain Mapping Program provided cost-share dollars for orthophotography in eight counties in the just completed winter flying season.

Special Presentation. Mr. Tim Johnson thanked Chair, Dempsey Benton, for his service on the GICC and presented him with a series of North Carolina historic maps from the Division of Archives and History. Mr. Benton's appointment by the Governor expires May 31.

Mr. Bill Laxton said the Governor's FY08-09 budget recognizes the importance of funding GIS because of Mr. Benton's leadership. Mr. Benton acknowledged Jim Dolan's efforts and thanked everyone on the GICC for their involvement to make that important progress. He mentioned that both GICC members Susan Johnson and Colleen Sharpe were his GIS mentors when he was City Manager for Raleigh.

ADJOURNMENT

There being no other business, the meeting was adjourned. The next meeting will be August 13, 2008 from 1:00-3:00 pm at the Department of Public Instruction Board Room, Room 755, 301 N. Wilmington Street, Raleigh.

PowerPoint presentations and reports are on the Council Web site: www.ncgicc.org Click on "Meetings." Presentations and documents presented during the meeting are available in a Zip file for easy download.