MINUTES
GEOGRAPHIC INFORMATION COORDINATING COUNCIL
August 18, 2004

PRESENT

Chair, Dempsey Benton. Members: Don Allen (for Carmen Hooker-Odom), Bryan Beatty, Tim Brewer (for Martin Lancaster), Bob Brinson, John Correllus (for James Fain), Jean Crews-Klein, Terry Ellis, Dianne Enright, Jeff Essic (for Hugh Devine), Mike Fenton, Derek Graham (for Mike Ward), Tom Gray, Jay Heavner, Linda Haywood (for Mike Wilkins), Jay Heavner, Bill Holman, Susan Johnson, Chris Kannan (for Jerry Ryan), Kelly Laughton, Tim Lesser, Dan Madding (for Britt Cobb), Lee Mandell, Joe McKinney, Rex Minneman (for Elaine Marshall), Carlton Myrick (for Gwynn Swinson), Stephen Puckett, Forrest Robson (for Lyndo Tippett), Norris Tolson, Rebecca Troutman, Charlotte Turpin, Jonathan Womer (for David McCoy)

PROCEEDINGS

A meeting of the Geographic Information Coordinating Council was held on August 18, 2004 in the Board Room of the Department of Public Instruction in Raleigh, North Carolina. Chair Dempsey Benton called the meeting to order. The Minutes of the May 20, 2004 meeting were approved. Mr. Benton said that the Council's Annual Report had been delivered to the Governor and the General Assembly. Council members received copies with their tentative meeting agenda. Former member Tom Newsome introduced Jonathan Womer who will now represent State Budget Officer David McCoy on the Council.

Status and Discussion of Priorities Before Council

Priority #1—New Legislation: Stream Mapping
Tim Johnson, Council staff, said that the legislature, through the Studies Act of 2004, directed the Council and the Department of Environment and Natural Resources (DENR) to develop and recommend a plan to improve the mapping and digital representation of surface waters in the state, including intermittent and perennial streams. That report is due in January 2005. Bill Holman was asked to accept this task on behalf of the Statewide Mapping Advisory Committee (SMAC). That committee will work with DENR and other agencies that are named in the bill or that have a stake in the designation of waters for economic development and environmental management purposes. The SMAC will give a progress report at the November Council meeting. Bill Holman asked for local governments to also contribute, especially since they are involved with storm water planning. Rebecca Troutman asked how this study bill related to the Floodplain Mapping Program. Secretary Bryan Beatty said the statute specifies the participation of several state agencies including the Division of Emergency Management, which includes the Floodplain Mapping Program.

> Action #1: The Stream Mapping legislation (part of Studies Bill 1152) was referred to the Statewide Mapping Advisory Committee to recommend a plan to improve the mapping and digital representation of the state's surface waters.

Priority #2—NC OneMap Implementation

Dempsey Benton said the Council approved the NC OneMap implementation plan one year ago. Good progress has been made on the 14 steps proposed at that time. Zsolt Nagy reviewed the brief history from the initial small demonstration with Mecklenburg County and US Geologic Survey (USGS) in August of 2003 to the first release and launch of NC OneMap the summer of 2004. He said the schedule was compressed to 10-weeks in an attempt to connect 65 communities that had existing web mapping capabilities, as revealed by the local government data inventory conducted last fall. Center for Geographic Information and Analysis and USGS staff led teams to identify requirements, enhance the design, develop new applications, and to assist local governments that needed technical expertise to link their web service to NC OneMap.

The requirements team conducted extensive interviews. The most important features for the first release included ease of use, an address locator, metadata, and a print capability. Those features were achieved. The design team looked at design elements for the web page that included data groupings, avoidance of clutter and animation, and a default strategy that determines which layers appear on the legend based on the zoom in/zoom out scales. Mr. Nagy said teams included USGS personnel, CGIA, state agencies, cities, counties and Councils of Governments. These relationships had been built through years of partnerships. As of August 18, there are 48 communities connected, out of 92 that have expressed interest. Mr. Nagy said the 15 communities currently sharing their orthophotography through NC OneMap represent a $4.5 million data investment.

Mr. Nagy reminded the Council that the data tapped by NC OneMap from local governments and federal agencies remains on their computer servers, wherever those servers are. He mentioned that the Help function is extremely good and showed how the 18 tools work, which will assist non-technical users. He showed the navigation tools and address locators and the "clip and zip" data feature that was developed in partnership with USGS which allows the user to down-load data to their own computer. A streets data model that would allow streets to seamlessly blend across county boundaries has not been completed by the Department of Transportation. An outside vendor is providing a temporary fix until this is resolved. Mr. Nagy pointed out the availability of elevation models to produce terrain models in NC OneMap.

Mr. Nagy said that NC OneMap is the spatial data backbone for the entire state and is dependent on institutional relationships. Agencies, universities and schools can use this backbone and create their own custom views that pre-select data sets for their unique missions and work environments, and can even password-protect that custom view. He mentioned that NC OneMap was recently presented at the ESRI International Users Conference in California, and the NC OneMap team has been invited to present at the 2005 annual meeting of the National Association of Counties.

Jay Heavner asked if NC OneMap could offer a road index to major roads in a county. Mr. Nagy said that USGS in Sioux Falls could be asked about adding that capability. Chris Kannan said that the federal Department of Homeland Security is recommending a distributed services model, like that of NC OneMap. Susan Johnson said that the City of Charlotte and Mecklenburg County conducted "Summer Breeze," a bio-organism terrorist exercise and used NC OneMap and the National Map to find relevant data across jurisdictional boundaries. Susan said the connection to *The National Map* is important because some of the analysis required disease tracking in Florida. Rebecca Troutman congratulated CGIA on this progress as this model is a topic of discussion by the IT/GIS subcommittee of the National Association of Counties. Dr. Lee Mandell asked about

the remaining communities that have web mapping capabilities but are not part of this initial connection. Mr. Nagy says the NC OneMap team is working on those relationships; there are institutional issues in some cases, and some do not have the technology. Also, since CGIA is cost-recovery the agency needs the ability to financially support the work of the team. Mr. Benton said NC OneMap is a good investment and increased from 12 connections in April to 48 in August.

Priority #3—State Government Data Inventory
Zsolt Nagy reported that the state government data inventory was delayed by the NC OneMap launch. David Giordano is leading the inventory team and the Local Government Committee has been asked to support the design of the survey tool. The state government inventory will try to address both existing geographic data layers and potential layers that can be constructed from databases with an address, or other geocode information. A September rollout is expected and results will be reported to the Council at its November 10th meeting.

Priority #4—Data Content Standards
Rex Minneman reported that the final draft *Digital Orthophotography* standard incorporated all comments pertaining to better wording on accuracy and mapping standards, and also added sample metadata. He mentioned that both Gaston and Mecklenburg counties are using this new standard and it is ready for adoption.

> Action #2: The Council adopted the Digital Orthophotography standard with the sample metadata as presented by the Statewide Mapping Advisory Committee.

Mr. Benton asked how the standard would be published and promoted. Mr. Minneman said he would be speaking to the Carolina URISA meeting August 19 and to the NC Property Mappers Association (NCPMA) fall conference in October. Mr. Johnson said there would be continuing outreach to groups across the state. Dr. Mandell said he would also promote the standard at the October meeting of the NC League of Municipalities.

Zsolt Nagy reported that the NC Property Mappers Association is providing more feedback on the content of the Cadastral standard, the core information elements for the mapping of parcels. Mr. Nagy said he will attend the October meeting of the NCPMA.

Kelly Laughton asked about the status of the Transportation standard. Forrest Robson said NC DOT is looking at both the ESRI model and the Federal Geographic Data Committee (FGDC) model topology (geometry with attributes), and DOT has not resolved those issues.

Priority #5—Access and Distribution
Susan Johnson said comments have been compiled concerning the draft "Guidelines for Providing Appropriate Access to Geospatial Data in Response to Security Concerns." She said the Homeland Security Working Group of the Federal Geographic Data Committee (FGDC) expects to have a final document by the end of September. She stressed that this is not a cookbook, but a decision-matrix for officials to use in determining what data can or can not be made public, or should be restricted. She said that agencies must have discussions about restrictions within the context of their own culture.   Dr. Mandell asked if the Council needed to transmit any comment at this time. Ms. Johnson said the 30-day window for comment had expired, but a number of North Carolina municipalities had submitted comments. She said it would be appropriate for the Council to formally adopt this framework when it is released.

Action #3: The Management and Operations Committee will review the final FGDC Guideline document, "Providing Appropriate Access to Geospatial Data in Response to Security Concerns," and make a recommendation to the Council.

Jean Crews-Klein said the Rural Center is in the process of updating the rural water and sanitary sewer data and adding urban areas in a 100-county data gathering effort. In their pilot question-naire, the Rural Center solicited a range of responses regarding data restrictions. Some areas won't give out their data, and other public utilities will provide everything they have. In response to her question about whether any cities have a policy on data restrictions, Ms. Johnson replied that most cities do not. These guidelines are to assist that process at the policy level.

Priority #6—NC OneMap Strategic Plan and Financing Strategy
Mr. Johnson referred the Council to the draft strategic plan narrative that summarizes the 5-year plan and financing strategy that was prepared by the Management and Operations Committee. The local government data inventory provided the context of the plan, which considered data required to serve their business needs and data that are highly useful to others across the state. Internet access is increasing and there is an immediacy to establish a firm foundation for NC OneMap and make the major initial investment.

The two cost components are: 1) Capital Investment, and 2) Operations and Maintenance. Within the Capital Investment component are data creation/acquisition and infrastructure costs. The Operations and Maintenance component includes data-related maintenance and infrastructure maintenance.

1) Capital Investment. Data creation/acquisition requires substantial investment dollars. The statewide Floodplain Mapping Program has an existing funding commitment of $16.2 million this fiscal year to develop flood hazard zones. Mr. Johnson pointed out that digital orthophotos are the foundation data asset most widely used by federal, state, and local agencies. Historically, local governments have paid to generate this data, but local funding uncertainties have resulted in significant age gaps in the data, especially in Tier 1 counties. The cost of statewide digital orthophoto acquisition on a four-year renewal cycle is estimated at $2.5 million each year. Other critical data sets include parcels, streets, building footprints, and elevation. He said that elevation data acquisition would cost $5 million in FY05-06 to complete the western counties and $800,000 per year thereafter to maintain the statewide LIDAR data. Regarding capital investment in infrastructure, Mr. Johnson pointed out that there is a cost to connect local governments to NC OneMap and for the essential hardware and software. Those expenses are expected to be $438,000 for FY04-05, with a $176,000 proposal pending that would reduce this amount. Of the $28.6 million needed in FY04-05, there is a shortfall of $12.3 million.

2) Operations and Maintenance. This category considers costs associated with updating data and metadata, updating infrastructure such as hardware and software, and paying for annual maintenance agreements. It factors in costs for maintenance of connectivity to all local and state NC OneMap nodes and CGIA staff positions related to database management, application development, and system management. The FY04-05 projected cost is $1.5 million.

The total five-year plan cost is $93.8 million; however, there are existing funding commitments of $16.2 million and another $7.9 million in pending funding commitments. Mr. Johnson said

there are clear benefits to the NC OneMap financing strategy. First, there will be data consistency across all North Carolina jurisdictions and local governments and the state will achieve cost savings in data collection. NC OneMap provides easier access for local, regional and state data users, plus this structure will make the most efficient use of CGIA and local government staff. Mr. Johnson encouraged the Council to adopt this five-year strategic plan and financing strategy to fully integrate NC OneMap into the business of government across the state, and he urged them to enlist the support of professional associations and groups.

      Action #4: The Council endorsed the NC OneMap Strategic Plan and Financing Strategy.

Mike Fenton said that recent legislation placed the State's Chief Information Officer in charge of duties formerly assigned to the Information Resource Management Commission. Mr. Fenton said he would assist streamlining the approval process through the Office of Information Technology.

Terry Ellis raised a concern that the large dollars in FY04-05, mainly for digital orthophotography, could be misinterpreted as the price tag of NC OneMap, rather than data costs. He said this proposal is a win-win situation. Dr. Mandell said it is hard to separate the data investment from technology investment in the NC OneMap proposal. Ms. Johnson said that NC OneMap is both the tool and the data. She commended the Management and Operations Committee for looking at lifecycle costs for this service. Mr. Robson suggested that the Council generate a cost-benefit analysis before taking this request to the General Assembly next spring. Stephen Puckett suggested looking at the economic development benefit as part of that analysis.

Mr. Benton said that this budget includes digital orthophotography to complete Floodplain Mapping work in the western part of the state as well as NC OneMap. It is all part of the larger picture and investment strategy. Mr. Fenton said the process comes down to investment choices that the General Assembly will make and it is up to the Council and staff to make a case for cost-savings to the Office of State Budget and Management. Ms. Laughton said that the investments being leveraged are not only state dollars, but local government investments in the data. Dr. Mandell raised the point that there is $12.3 million unfunded for this fiscal year and that would need more discussion. Mr. Benton said we will include it on the November agenda.

US Board on Geographic Names and the Geographic Names Information System

Lou Yost is the chief of the Geographic Names Project at the U.S. Geological Survey and has been a member of the American Name Society for nine years. He said the U.S. Board on Geographic Names is the national recognized authority. Scientific exploration in the 1800s created the need for consistency and standardization in naming. The Board provides uniformity and formulates principles, policies and procedures, and geographic nomenclature. No federal agency can change or add any name on a product (like a map), without going to the Board on Geographic Names. The Board meets monthly to set names. Many states are involved in the maintenance of their names in the Geographic Names Information System (GNIS) through state boards. Mr. Yost invited North Carolina to be part of the new maintenance model that several states have adopted to update the GNIS through electronic submission. Mr. Yost said adding new names can be accomplished with on-line data entry forms that can be submitted in batch, for example all schools within the state, by recognized partners. The Geographic Names Information System (GNIS) is one of eight federal data layers offered on *The National Map*. It is the most complete record of names (USGS topographic quadrangles miss 30% of known

named features). All federal government agencies must use the GNIS names for federal maps or reports.   The Board on Geographic Names has a geographic names design team for *The National Map* and works with state names authorities, such as the North Carolina Board on Geographic Names, and local authorities.

Bill Holman read from a draft resolution that would authorize the US Board on Geographic Names to be the "Official Repository for North Carolina Geographic Place Names." Dr. Mandell questioned the third paragraph which assigned the responsibility directly to the Council's North Carolina Board on Geographic Names, a committee of the Statewide Mapping Advisory Committee, instead of the SMAC. He also asked if tribal lands are included in the GNIS. Rex Minneman asked if the resolution covers governmental unit names since only the North Carolina General Assembly is empowered to change county and municipal names. He asked if a name can be added or corrected in the GNIS repository, if the state makes a change. Mr. Holman said if a new municipality gets incorporated, this gives us the ability to send the new name into the Board on Geographic Names. Mr. Nagy said that the NC Board on Geographic Names has worked cooperatively with the US Board since 1996. This resolution to identify an "official" North Carolina repository would acknowledge that practice.

> Action #5: The Council adopted a resolution recognizing its partnership with the US Board on Geographic Names. It acknowledged the Geographic Names Information System (GNIS) as the official repository for North Carolina geographic place names.

Committee Reports

Statewide Mapping Advisory Committee (SMAC). Bill Holman said that Jackson County responded to the Council's letter regarding three named features that were previously known by an offensive name. They have another name in common usage at this time and wish to officially change the feature names to Cedar Valley Road, Cedar Valley Creek, and Cedar Valley Mountain. The SMAC subcommittee, the North Carolina Board on Geographic Names, recommends the names be forwarded to the US Board on Geographic Names.

> Action #6: The Council endorsed the recommendation of the Statewide Mapping Advisory Committee to forward a name to the US Board on Geographic Names for three Jackson County features formerly known by an offensive name.

Gary Thompson reported that the Orthophotography Implementation Planning committee is continuing to investigate funding sources to help local governments obtain orthophotography. He said the partners have met twice with the E911 Wireless Board and they are working with local officials in the western part of the state. The group has also met with the Department of Transportation.

Jay Heavner said the regional color orthophotography effort administered by Centralina Council of Governments has released a Request for Qualifications to 18 national vendors. Initially, 16 counties were invited to participate in this group purchase, but when they each had to contribute $3,000 to Centralina Council of Governments for administration, the number dropped to 10. The only "donut hole" in the coverage area is Catawba County, which flew in 2002. Mr. Heavner

recommended that Councils of Government are best situated to lead these regional efforts for a contiguous jurisdictional approach. This project will involve 5,000 map tiles (100-ft to 200-ft scale). Unfortunately, two of the project counties (Rutherford and Cleveland) do not have free LIDAR elevation data because they have not yet been flown as part of the Floodplain Mapping Program; therefore their costs will be higher. Within the project group one county has not been flown since 1989 and will need digital terrain models created. The flights will occur in winter/ spring 2005 and the final delivery of the product will be July 2006. No single vendor is large enough to handle a 10-county area in the short, leaf-off flying season. Each county will pay its share, plus any add-ons, such as contours and building footprints, they selected. Mr. Benton said he would like to hear another report on this project at the November Council meeting.

State Government GIS Users Committee (SGUC). Dianne Enright reported that the SGUC met in July and had a presentation on ArcGIS 9, an ESRI product, and a presentation from Zsolt Nagy on the state government data inventory. There has been no further word from ESRI about the feasibility of a state government license.

Local Government Committee (LGC). Kelly Laughton said that the committee will participate in the state government inventory design. Email messages soliciting input from local governments about state data were sent to the list serves of the NC Property Mappers Association (NC PMA), Carolinas Chapter of Urban and Regional Information Systems Association (CURISA), and the NC Local Government Information System Association (NCLGISA). She spoke with Council member Steve Puckett about the *ad hoc* committee that will work with the NC Board of Engineers and Surveyors on changes recommended by the NCEES Model Law. The LGC has been informed of the time frame and will provide participant names to Mr. Puckett. Concerning standards, Ms. Laughton requests that the Statewide Mapping Advisory Committee releases draft standards sooner so they can be disseminated on relevant list serves to give reviewers more time. She recommended that every draft standard released should have a response deadline noted.

Dr. Mandell asked if the LGC and SGUC were meeting about not only a state government license, but a statewide government license with ESRI, the primary GIS software vendor. Ms. Laughton said they will meet soon.

Federal Interagency Committee (FIC). Chris Kannan said the LIDAR workshop sponsored by the FIC but hosted through NC State University was a success, more than 200 people attended. A list serve will be constructed out of the registrants. The levels of experience were extremely diverse and future workshops will have a more narrow focus. Mr. Kannan said there was a reorganization in USGS to consolidate geospatial data programs into the National Geospatial Programs Office, which will now include *The National Map*, the Federal Geographic Data Committee, and Geospatial One Stop.

GIS Technical Advisory Committee (GIS TAC). Susan Johnson said that the committee has one current item before it: metric versus English units. She mentioned that the increase in computing power has made conversion between those units much easier. However, the GIS TAC would like to meet with US Geological Survey, NC Geodetic Survey, and the Statewide Mapping Advisory Committee to decide on where the standard should be set. Mr. Robson said NC DOT can use both meters and feet. Mr. Kannan said data from either system can be displayed as one on NC OneMap.

<u>Other Business</u>

Tim Johnson said CGIA was asked to review Committee comments regarding the professional certification offered through the GIS Certification Institute (GISCI).   Staff concur this is a positive step for GIS professionals. The qualifications for the certification include education, work experience and service to the profession. He suggested that the Council send a letter of endorsement to GISCI noting their concerns about privacy and reasonable application fees.

> Action #7: The Council endorsed GIS Professional Certification Program. The Chair will send a letter to the GIS Certification Institute recommending that the Institute create a privacy statement for handling of personal information and that a reasonable application fee be maintained.

Derek Graham said the 2005 North Carolina Geographic Information Systems Conference will again recognize local government visionary use of GIS through the Herb Stout Award.   He encouraged local governments to apply for this prestigious award.

Tim Johnson said that North Carolina again successfully applied for several competitive grants awarded by the Federal Geographic Data Committee. Centralina Council of Government received an award in the Institution Building and Coordination category; the Center for Applied Geographic Information Science at UNC-Charlotte was awarded in the Metadata Implementation Assistance Projects category; and the Land-of-Sky Regional Council led a partnership that included Western Piedmont COG and Northwest Piedmont COG and CGIA in the category, Participation in the National Map. Joe McKinney, Executive Director of the Land-of-Sky Regional Council, said this grant will allow the Councils of Governments to build capacity to serve data to NC OneMap.

Mr. Benton stated that the Management and Operations Committee need to consider the shortfall in financing for NC OneMap this current fiscal year. All other issues, including the possible changes in the Surveyor's Model Law, the Stream Mapping study, and anything else going before the General Assembly should come before that Committee.

> Action #8: The Management and Operations Committee shall monitor progress on the Surveyor's Model Law, the Stream Mapping Study, and any other items to be raised in the 2005 General Assembly session.

> Action #9: The Management and Operations Committee shall consider issues related to the NC OneMap Strategic Plan and Financing Strategy, including ways to cover the $12 million shortfall in implementation funds for the current fiscal year.

ADJOURNMENT

There being no other business, the meeting was adjourned. The next meeting will be held November 10, 2004, 1:00-3:00 pm at the Department of Public Instruction Board Room, Room 755, 301 N. Wilmington Street, Raleigh.

All PowerPoint presentations and reports are on the Council Web site: www.cgia.state.nc.us/gicc, then click on "Meetings." The individual "Presentation" icons follow the Agenda and Minutes.