North Carolina
Geographic Information Coordinating Council

Minutes
November 15, 2012

PRESENT

Chair, Dr. Lee Mandell. Members: Scott Casey (for David Hoyle), John Dorman (for Reuben Young), Ryan Draughn, Dianne Enright, Jeff Essic (for Hugh Devine), Kelly Eubank (for Sarah Koonts), John Gillis, Derek Graham, Bliss Kite, Tom Morgan (for Elaine Marshall), Dan Madding, Anne Payne, Alex Rankin, Alex Rickard, Linda Rimer, Allan Sandoval, Colleen Sharpe, Richard Taylor, Arvind Wathore (for Jonathan Womer) and Ron York

Staff: Tim Johnson, CGIA

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 Dr. Lee Mandell called the meeting to order. Dr. Mandell noted that the meeting will be recorded to facilitate the preparation of the minutes and asked that everyone speak into the microphones.

The minutes of the August 8, 2012 meeting were approved with no changes.

Chair Announcements

The House of Representatives reappointed Ron York to another three-year term on the GICC. Kelly Laughton has resigned from the Council after many years of service, first as the LGC chair and later as a Senate appointment. Dr. Mandell asked for recommendations for candidates to fill this slot, noting that Ms. Laughton represented the private sector in recent years as a Senate appointment. He asked that names and contact information be submitted to Tim Johnson, who will forward suggestions to Senator Berger's office.

Dr. Mandell said that much of the hard work of the Council is done by the committees and working groups. He noted that he Council needs to periodically review the charters and mission statements of the committees to assure they reflect the role of these groups, particularly those not established by the enabling legislation. Dr. Mandell has requested that staff meet with the various committees and working groups to ensure the bylaws, charters and mission statements are up-to-date and reflect their rationale for being.

Dr. Mandell noted that an earlier version of the agenda had an incorrect date for the November 2013 meeting. The correct date is November 20.

Status and Discussion of Priorities Before the Council

NC OneMap Implementation
(see NC OneMap implementation file at GICC website - http://ncgicc.net/Meetings/tabid/138/Default.aspx)

David Giordano, NC OneMap Database Administrator, reported that it has been a busy quarter for data updates to the NC OneMap Geospatial Portal. Regular quarterly updates included datasets from NCDOT, DENR Division of Waste Management and the Natural Heritage Program, among others. Voting districts from the General Assembly IT Division and a prime farmland map service from the NC Department of Agriculture & Consumer Services are now available.

Mr. Giordano reported on upcoming activities. The team will update the version of the Geospatial Portal. The new version will support the Federal Geographic Data Committee's service status checker, which will enable a user to know if a map service is available or not.

The team is beginning to build infrastructure to allow redundancy for NC OneMap data and services. ITS and CGIA will procure, build and configure servers at the ITS Western Data Center in Forest City, install current versions of ArcGIS software, load all existing imagery dating from 2010 back to 1995. The team will install the latest version of the Geoportal and implement some customizations to support download of multiple years of imagery data from the Geospatial Portal.

Once the installation is complete, the Western Data Center will begin to serve as the production environment. Then the team will upgrade GIS software in the existing production environment at the Eastern Data Center in Raleigh. The goal is to ensure redundancy so that map services, image services and download functions of NC OneMap will never go down. With the servers stacked in the two data centers, the team will begin to load and create image services for the 2012 imagery for the coastal project area. Activation of a load balancer will ensure a load-balanced, redundant and fail-over enterprise system.

Dr. Mandell recognized CGIA for its quick response to concerns by the GIS community about redundancy. These steps will help ensure that NC OneMap will be available as close to 24/7 as possible. This reality seemed unlikely given the budget cutbacks. Dr. Mandell praised staff for their efforts and thanked the NC 911 Board for their support as redundancy of service, especially for imagery, is driven by their needs.

Private Sector Survey Results
(see NC OneMap implementation file at GICC website - http://ncgicc.net/Meetings/tabid/138/Default.aspx)

Jeff Brown, CGIA Coordination Program Manager, reported on the NC OneMap survey focused on private sector users. Staff and the M&O Committee developed an outreach survey that included 19 questions and took 5-10 minutes to complete. Mr. Brown acknowledged Alex Rankin, John Gillis, Richard Taylor, Kelly Eubank, Ron York, Jay Bissett and Gary Thompson for their help in identifying professional associations and other groups that represented likely OneMap users and encouraging them to distribute the survey. Staff also distributed the survey to private sector employees in the CGIA contact database and to the NC GIS list serv. A link to the survey was added to the Geospatial Portal.

The survey had 381 respondents who identified themselves as working in the private sector, of which 278 responded to at least 3 questions in the survey. The predominant business types responding to the survey were engineering (33%) and surveyors (21%), representing more than half of the respondents. Environmental consultants (19%) and the real estate industry (11%) were also well represented.

Mr. Brown reported that most respondents were either from large companies – 100+ employees (43%) – or small companies with fewer than 5 employees (24%). Results on how respondents use NC OneMap included:

- Have you searched for geospatial data on the Geospatial Portal: Yes – 65%
- Have you downloaded geospatial data from the Geospatial Portal: Yes – 61%
- Have you used a web map or image service from the Geospatial Portal to view data on your computer: Yes – 49%
- Do you stream data from NC OneMap into your business' map viewer or other computer application: Yes – 30%

Concerning the type of business need that is satisfied by the use the Geospatial Portal, only 23% said that no business need is satisfied. More than 77% identified various types of business needs satisfied covering transportation, forestry, farming, environmental features and real estate and economic development. See the PowerPoint presentation for the breakdown on responses.

Respondents were asked to identify data themes that are or would be of most value. Framework datasets were the most popular, including orthoimagery (89%), parcels (77%) and streams (74%). Other desirable data sets included flood hazard areas (69%), elevation (68%), street centerlines (54%), building footprints (49%) municipal (48%) and county (46%) boundaries and address points (37%).

Another set of questions addressed the value of the Geospatial Portal to users.

- Does the Geospatial Portal save you time? Yes – 80%
- Does the Geospatial Portal save you money? Yes – 72%
- Does the Geospatial Portal help you do things you could not do otherwise? Yes – 66%

Finally, the survey asked how the State should sustain NC OneMap as an online resource for geospatial data. Respondents were asked to rank five choices from most preferred (1) to least preferred (5). The results, in order of preference based on the responses, are:

1. Free service, funded by State budget
2. Free service, with on-page advertisements
3. Free data services, with a fee for value-added applications
4. Available for a fee, based on amount of use
5. Available by login, with annual paid subscription

John Dorman asked how the results will be used. Mr. Brown said that the results confirm the GICC's assessment of which datasets are most valuable and that the service needs to be free. Mr. Dorman asked if the survey only went to the private sector. Dr. Mandell replied there were almost 200 responses from the public sector, which have not been analyzed as yet. He noted that the public sector data will be valuable but the goal was to determine the extent of use and value of NC OneMap to the private sector to supplement previous anecdotal information. Dr. Mandell said that the results will be valuable in making the case to the General Assembly for greater support

for NC OneMap. The results are very positive and the data indicate that NC OneMap is valuable to the private sector and will help demonstrate that the efforts of the GICC are not solely focused on state and local government.

Alex Rankin said the information is a good foundation for approaching the legislature and making the case that NC OneMap is important to the private sector. He realizes the survey was anonymous but asked if there is any sense of which companies responded. He emphasized that in approaching the legislature to make the case for greater support, those folks with a vested interest in NC OneMap, those companies that report time and money savings are the advocates that can speak to the legislature and explain the value of NC OneMap to their business. The results and statistical value is good but nothing is as convincing as a face-to-face meeting with somebody with a convincing story on why NC OneMap needs support. Mr. Rankin suggested following up with the community that responded and solicit allies and advocates to help make the case.

Mr. Brown reported that respondents had the option of identifying themselves and some did so. Dr. Mandell asked staff to identify respondents who made positive comments and also encouraged the GICC members to identify senators and representatives who will be open to hearing the message.

ACTION #1: CGIA will review the survey responses and prepare a list of self-identified respondents who indicated value as users of NC OneMap Geospatial Portal and who may be advocates for sustaining NC OneMap.

Update: Coastal Orthoimagery 2012 and Eastern Piedmont 2013 Projects
(see Orthoimagery PPT file at GICC website - http://ncgicc.net/Meetings/tabid/138/Default.aspx)

Mr. Johnson reported that the Coastal Orthoimagery project is moving into its final stages and the Eastern Piedmont Orthoimagery project is beginning to ramp up. He described the accomplishments since the Council met in August.

- The team implemented the VOICE (Virtual Online Inspection, Checking, & Editing) quality control tool.
- PSAP, CGIA and NCDOT staff and county GIS coordinators have been using VOICE to review imagery tiles, identify problems and submit the problems to the contractors. Quality control review is complete for 24 of the 25 counties.
- The contractors have resolved the issues that were identified and CGIA has received final delivery for 16 counties.

The team awaits delivery of the imagery for Craven County. The contractor is expected to complete that work soon and Craven County will be released to the VOICE tool for quality control review.

Next steps are to take delivery of the remaining nine counties. Meetings with PSAPs will be scheduled in January for final delivery of the data. He anticipates the team will meet the schedule for delivery of the data for the final county – Craven County – in early February. Simultaneously, work is underway to load and serve the imagery on NC OneMap. Once the counties receive the data, they will have 60 days to conduct a final review. He said that the team does not expect that many problems will be identified during this phase because of the thorough review through the

online VOICE application. He showed a map with the status of data delivery and some examples of the imagery.

Technically, the Coastal Orthoimagery project ends in August when the final report is complete but the data will be in the hands of the counties and available over NC OneMap by the end of February.

Start-up of the Eastern Piedmont Orthoimagery project is well underway. Phase 2 is about 30% larger than Phase 1 and includes the important areas of Fort Bragg and Seymour Johnson Air Force Base as well as the Raleigh/Durham/Chapel Hill metropolitan area. Some areas in Phase 2 will require acquisition of special imagery to address potential problems with building lean. The team has permission to collect imagery over Fort Bragg and Seymour Johnson. The Fort Bragg imagery will be available only to Fort Bragg and the 911 office in each of the counties surrounding the base. Availability of the imagery for Seymour Johnson will be subject to review by the Air Force before any further release is granted.

As with Phase 1, the 25-county Phase 2 project will be divided into four study areas. The team is currently reviewing cost proposals from the four most qualified vendors. Negotiations will conclude next week and procurement is expected to be complete before the end of December. Flight planning will take place in January and acquisition will begin in February. Negotiations are also underway with NCDOT and NC Geodetic Survey to finalize contracts for the same roles these agencies handled in Phase 1. Final coordination with the military bases is almost complete.

The VOICE application will again be used for quality control review. The tool exceeded expectations and was embraced by local governments. Based on the Phase 1 results, Mr. Johnson is confident that data distribution for Phase 2 will be on time in January 2014.

Derek Graham asked what types of problems were identified during the quality control review. Mr. Johnson said road mismatches between image frames, warping of bridges and color balancing were the most common problems, all of which are correctable.

Dr. Mandell commented that an outcome of less than 12 months between flying and delivery is incredible. Richard Taylor said that the only way to complete a project more quickly would be for contractors to fly individual counties and in that situation the costs would be astronomical. The current process represents a 50% savings in NC 911 funds.

Presentation: "Federal and State Geospatial Investments at Work in Conservation Planning and Soils Analysis"
(see NRCS PPT file at GICC website - http://ncgicc.net/Meetings/tabid/138/Default.aspx)

Dr. Mandell introduced Matt Duvall, State GIS Coordinator for North Carolina with the US Department of Agriculture, Natural Resources Conservation Service (NRCS). On arriving in North Carolina, Mr. Duvall was immediately impressed with the quality of coordination among the GIS community. In Wisconsin, he participated with a group of GIS professionals whose mission was similar to the GICC's but he noted that they were not nearly as successful. Mr. Duvall attributes the success in North Carolina to the structure of the Council and its coordination process and the facilitation of CGIA.

The NRCS missions can be divided into two areas – soils and conservation assistance. NRCS is the sole federal authority for creating data about soils. NRCS and US Geological Survey have shared authority for creating data on the nation's watershed boundaries. Recently the National Watershed Boundary Dataset was integrated with the National Hydrography Dataset (NHD) to create a comprehensive dataset of the nation's surface waters. NRCS and USGS share authority for establishing stewardship for the watershed boundary and NHD data product.

NRCS's cornerstone product is the Soil Survey Geographic Database (SSURGO). Soils are mapped for each county and include slope classifications and other characteristics. State and local investments in geospatial data are leveraged by NRCS to improve the soils mapping. Derivatives from LiDAR acquisition enable NRCS to analyze broad areas of soils mapping for accuracy and classification. Similarly, NRCS uses NC Floodplain Mapping Program data to evaluate the quality of NRCS's floodplain soils mapping.

It is important to make the soils maps accurate but also useful. The Web Soil Survey is a national web-browser mapping product that provides users with simple access to soils representations and some basic reports. The limitation of the tool is that it does not support the ability to simultaneously view other GIS data nor does it provide analytic capability. NRCS recently entered into an important partnership with the NC Department of Agriculture & Consumer Services (NC DA&CS) to provision across the web soils interpretation data layers that are acceptable in a desktop GIS environment to overcome some of these limitations. Currently the tool simply supports a web mapping services. Future iterations will support analytical capabilities.

Prime farmland soils are an important dataset to the development community, to local planning and zoning boards and to NCDOT for transportation corridor planning. Mr. Duvall said he looks forward to collaborating with NC DA&CS to provide other soils interpretations such as depth to water tables, depth to bedrock, land capability classifications, and hydric (wetland) soils ratings. All data sets that are provisioned to NC DA&CS are discoverable through NC OneMap. NC DA&CS has also created several web-based, value added products that access SSURGO soils data. He displayed a realistic crop yield indicator, developed jointly by NC DA&CS and NC State University. Mr. Duvall expressed his pleasure that North Carolina agencies are adding value to the cornerstone NRCS soil data product.

In the area of conservation assistance, NRCS is collaborating with the NC Clean Water Management Trust Fund to identify all surface waters in a 30-county area in western North Carolina that are classified as outstanding resource waters, high quality waters, water supply designated waters, NC Division of Water Quality (DWQ) impairment classifications, the Natural Heritage Program's national and state significant habitat, and the NC Wildlife Resources Commission's wild trout streams. He displayed an example of how GIS supports this analysis, showing orthoimagery, agricultural parcels and NHD 24K surface water with a 300-foot buffer around main streams and all tributaries with ½ mile of main streams.

Through this federal and state collaboration, NRCS will target farmers with agricultural parcels within the 300 foot zone. The program provides direct assistance of $21M of water quality program incentives. The program and the money will have a real impact on the water quality of priority waters identified by the State. The ability to achieve success depends entirely on the collaboration with State agencies and the completeness and accuracy of the NHD.

The completeness and accuracy of the NHD is one limitation of this effort. He displayed synthetic flow lines modeled by CGIA as part of the North Carolina stream mapping project. He displayed another set of lines are excellent candidates for stream restoration practices to mitigate against stream bank erosion, based on the 1:24,000-scale NHD data. But land application of conservation practices that prevent erosion is only applicable in the head waters and small tributaries, represented by the CGIA data, which unfortunately are explicitly missing from the 24K NHD product.

The Streambed Mapping Advisory Committee under the SMAC, which Mr. Duvall chairs, is focused on developing a memorandum of understanding or stewardship agreement that will provide a mechanism by which local resolution watershed datasets, such as that developed several years ago by CGIA for 19 western counties, can be incorporated into the federal NHD product. Collaboration and consensus by all stakeholders is critical to accomplish this. He noted that staff from many agencies represented in the room are involved but encouraged others engaged in hydrography mapping to engage in the work of the Streambed Mapping Advisory Committee to define the stewardship process in North Carolina.

NRCS professionals use GIS to support conservation assistance planning. They need current orthoimagery, county tax parcels, NCDOT roads data, soils data interpretations, particularly those that are accessible in a desktop GIS environment. Also critical are the NHD and watershed boundary datasets, both of which are federal products. Mr. Duvall reemphasized that the door is open for state and local improvements at a local scale resolution. In the meantime, NRCS provides access to the 19 county local resolution data from the North Carolina stream mapping project as well as similar products developed by the NC Floodplain Mapping Program, where available and appropriate for use. NRCS regularly uses DWQ stream impairment classifications and the drinking area source water data. These data are used for planning purposes but also for ranking areas for financial assistance. LiDAR products, including hill shade, elevation and topographic contour lines, are also regularly used for flow accumulation modeling for erosion management planning and the design and assessment of water control structures.

Using accurate LiDAR elevation data, in collaboration with data from the NC Natural Heritage Program, enables NRCS to target landowners with parcels in locations where wildlife habitat incentive investments will be effective in benefitting target species. Even in very flat areas, LiDAR is helpful in identifying low-lying areas for wetland restoration on fields that were formerly under row crops.

Federal, state and local collaborative investments in accurate and complete GIS data enables NRCS to target financial resources where they have a higher likelihood of being effective. Targeting money at the correct location dramatically increases the likelihood of success. This is only possible by access to geospatial information that is relevant and accurate at a local scale. The data can only be developed by collaboration with local and state government agencies that create the local resolution data.

Mr. Duvall described the Afghanistan sport of Buzkashi where each rider plays for himself. In one game he watched, it took ten hours before a rider won. Mr. Duvall made the point that in the least collaborative environment, someone may eventually appear to be the winner. In the GIS arena, this may not be the best path for collaboration among local, state and federal governments. Mr. Duvall suggested that the appropriate question is not how much an effort may cost an individual agency or what an agency stands to gain. Rather how will our collective efforts, as public servants, benefit the

citizens we serve? When local, state and federal government sit around the same table and openly collaborate to fully leverage the investments of each of the agencies represented here today, only then will we maximize return to the taxpayers. He commended the GICC for its efforts, expressed his pride in being a part of the GICC initiatives and expressed hope that the Council will continue to encourage collaboration.

Dr. Rimer said that Mr. Duvall served on the FIC Executive Committee both before and after his service in Afghanistan and thanked him for his presentation. Dr. Mandell expressed his appreciation for Mr. Duvall's observations about the value of the Council in bringing the GIS community together. The Council has been successful for more than 20 years in a highly collaborative and voluntary forum. He echoed Mr. Taylor's earlier comments that each county can independently acquire and pay for orthoimagery but it is much more cost effective to do it collaboratively.

Dr. Mandell said the continuing challenge is making the case to the General Assembly about the effectiveness of collaboration and the need for greater support. He reminded the members that this past summer the General Assembly considered cutting back on the number of members on the Council and significantly reducing local government representation on the Council. Part of what makes a collaborative effort successful is having the right number and the right representation around the table. Cutting out some constituencies weakens the effort.

Dr. Rimer said that Mr. Duvall's presentation reminded her of the importance of GIS data for so many applications. She asked how the GICC can better market the importance of the various ways geospatial data is used. Can the GICC create a list of activities that cannot be effectively accomplished without geospatial data? How can the Council communicate the importance of geospatial data, which underlies so many of the products or outcomes that the General Assembly may recognize as important?

Mr. Duvall said that all regulations related to water from the Clean Water Act are tied to the National Hydrography Dataset. EPA's use of reach codes, which involves assigning classifications for different levels of water quality enforcement, are tied to the NHD. Yet the 1:24,000-scale NHD product, the highest resolution currently available, is essentially useless to a local community. Wake County has invested considerable resources in developing a very powerful, higher resolution stream dataset because of the limitations of NHD. Unfortunately, that creates inefficiency in terms of how Wake County does business because this very useful data product is not tied to the regulations they have to follow. Only when the higher resolution local data is integrated into the NHD will agencies be able to achieve the savings from leveraging each other's investments.

John Gillis was reminded of an image from the coverage of the Hurricane Sandy. GIS datasets were available to show where impacts were likely to occur. The picture that had the most effect was that of New York City with the lights out over major sections of the city. Mr. Gillis suggested that the projected areas of impact from the GIS data overlaid on the image of the areas with the light out would be very powerful and get more attention at a time when emergency preparations are underway. Effectively presenting the data to legislators is the key.

Dr. Mandell thanked Mr. Duvall for his very informative presentation.

Committee Reports

Statewide Mapping Advisory Committee (SMAC). Gary Thompson, vice-chair of the SMAC, presented for SMAC chair Ryan Draughn, who was unable to attend due to a conflict. The SMAC met on October 10 and heard reports from the various working groups. The Board on Geographic Names (BGN) received two requests to rename creeks, one in Ashe County and one in Wake County. There was no local support for the proposed name change in Ashe County and the BGN recommended the request be denied. The request in Wake County was to rename a creek after a new development. One of the principals of the NC BGN and the US BGN is not to name features after commercial developments. The NC BGN recommended this request be denied. The SMAC approved both recommendations.

Metadata Committee. Mr. Thompson asked Steve Averett, chair of the Metadata Committee to report. Mr. Averett reported the SMAC approved the committee's charter, which includes a review of incentives for metadata creation and maintenance and recommendations for state metadata standards. The committee has held two very productive meetings. He recognized the committee members for their knowledge and commitment.

Initial discussion focused on current and emerging metadata standards, including a review of the existing FGDC standard as well as the existing and forthcoming International Standards Organization (ISO) standards. The committee examined custom tools for managing metadata. The committee is considering an application for a CAP grant from the FGDC in the amount of $25,000 to conduct outreach and education on the importance of metadata and the available standards.

A primary goal is a solution for creating and maintaining metadata that is easy for local governments to implement. For incentives to work, it must be easy for local governments to maintain metadata. He acknowledged the valuable assistance from Lynda Wayne, a contractor to the FGDC whose primary work focus is metadata. Ms. Wayne provided background on the ISO standards. The expectation is that the new ISO standard will be adopted in May 2013. The committee is leaning toward recommending the new standard, which addresses many of the current issues of concern.

The committee will hold its third meeting on November 16, which will include a report from Esri and the compliance between the latest version of ArcGIS and the new ISO metadata standard. Integration of the new ISO standard with Esri software, which is so prevalent at the local government level in North Carolina, will be important. The committee will report on its progress at the 2013 NCGIS Conference.

Dr. Mandell stressed the importance of the committee's work because metadata is so important to enabling discovery of geospatial data through NC OneMap. He thanked Mr. Averett and the committee members.

Working Group for Seamless Parcels (WGSP). Jeff Brown reported on behalf of Tom Morgan, co-chair of the WGSP. The project is entitled the Integrated Cadastral Data Exchange to develop online tools for ingesting, transforming and sharing county and tribal land parcel data, funded by EPA. The project team includes NCDOT, the Land Records Management Program in the Secretary of State's Office, the Eastern Band of Cherokees and CGIA. The ITS Project Management Office is providing assistance.

The project team met on November 6 with the WGSP to reactivate the group in its technical advisory role. He commended Pam Carver, Henderson County and co-chair of the WGSP, for traveling to Raleigh for the meeting. The meeting addressed key project elements, the data dictionary, the project goals and the requirements for the contractor selection process.

The next steps are more detailed planning and design and the upcoming competitive procurement process for a vendor to develop and host the application. He anticipates a request for proposals will be released in January 2013. The goal is to build not just the tools but a process for creating and maintaining statewide parcels. Mr. Brown believes that the team will be energized by Mr. Duvall's presentation on the effort to add value at a local scale in a true collaboration between federal, state, tribal, local and regional partners. The GICC's coordination structure made it easy to identify and communicate with the stakeholders on this statewide project.

Dr. Mandell expressed his appreciation to CGIA for taking official ownership of this project.

Working Group for Roads and Transportation (WGRT). Alex Rickard, co-chair of the WGRT, reported the FGDC grant to build a street centerline translator officially ended on October 23, after many delays. The project successfully developed the translator and the team met the goal of having 25 counties submit street centerline data. The final report will be submitted in January. Mr. Rickard said he will share the report with Council staff. He expressed hope that the WGSP and CGIA will benefit from the lessons learned in the WGRT project in developing a similar tool for parcels.

He reminded the members that the translator tool takes local street centerline data and standardizes the attribute tables so that NCDOT can more easily incorporate local roads and build a statewide dataset that includes the NCDOT's statewide referencing system and centerline files.

Mr. Rickard reported that he met with GIS staff from regional councils, Rural Planning Organizations (RPOs) and Metropolitan Planning Organizations (MPOs). The RPOs and MPOs do transportation planning for North Carolina and are customers and end users of the transportation datasets from NCDOT. They discussed the idea of the RPOs and MPOs taking responsibility of uploading the county centerline data every quarter. As Mr. Brown mentioned, the process may be more important than the product. The hard part is doing the work every quarter to maintain the dataset.

Twenty RPOs cover 95 counties and 5 MPOs that are responsible for Wake, Guilford, Forsyth, Mecklenburg and New Hanover counties. The RPOS and MPOs are best positioned to support the maintenance. Mr. Rickard is delighted to report that as of today, 82 counties are now loaded into the translator, up from 25 on October 23. He expressed confidence that all 100 counties will be loaded by the NCGIS Conference.

Mr. Johnson thanked Mr. Rickard for his leadership. It is remarkable what he and the WGRT have been able to accomplish, despite the delays in getting the project underway.

Working Group for Standards. Tom Morgan, chair of the Standards Committee, reported that Gary Thompson has agreed to review and make recommendations for updating the statewide GPS standard for the use of GPS units. In reviewing the list of previously adopted GICC standards, several other standards are linked to the GPS standard and the work of the NC Geodetic Survey. These include the Vertical Datum Standard, adopted in 1988, the National Digital Elevation Program guidelines, and

the Geospatial One Stop geodetic controls. Mr. Thompson has also agreed to review and make recommendations for upgrading these standards.

The committee plans to review the orthophotography standard after reviewing the lessons learned from the 2012 Coastal Orthoimagery project. He reminded the members that the GICC recommended that the Secretary of State's office adopt the LiDAR standard, which was supported by the Secretary of State's Land Records Advisory Committee. Secretary Marshall is committed to adopting the standard as soon as the public notice period is complete. Final adoption is anticipated by January.

The committee has asked Mr. Rickard and the WGRT to produce a roads and transportation standard. The WGSP has made a similar commitment on a parcel standard once the current project is complete. Dan Madding with the NCDA&CS has volunteered to review the old land cover standard. Mr. Rickard noted that the WGRT did rewrite the centerline exchange standard prior to applying for the FGDC grant. Following the completion of the project, he anticipates that NCDOT will review the standard and recommend adjustments. He hopes that by February or possibly May, the WGRT will submit a revised standard to the GICC for adoption.

Dr. Mandell emphasized the need for periodic review of standards, noting that many things have changed since 1988. He expressed his appreciation to Mr. Thompson and others for agreeing to review existing standards. He said that the expertise of GICC and committee members along with the constituencies that everyone represents enables the GICC to leverage this expertise to keep the standards fresh and up-to-date.

Working Group for Orthophotography Planning (WGOP). Gary Thompson, chair of the WGOP, said that the committee met on October 8 and received an update on the Coastal and Eastern Piedmont Orthoimagery projects as well as an update on the 2012 agriculture imagery (i.e., NAIP) effort.

Mr. Thompson gave a report to the WGOP on the adjustment to the geodetic control network, NAD 1983 (2011). The adjustment has been completed and adopted by NC Geodetic Survey. A key part of this effort is transformation software for all of the realizations of NAD 83 from 1986 to 2011. The transformation software is scheduled to be released today. He hopes that Esri will quickly incorporate the transformation tool into their software to enable users to easily accomplish the transformation.

Mr. Thompson serves on the National Geospatial Advisory Committee (NGAC). Mr. Thompson chaired a NGAC working group, which prepared a paper supporting the three dimensional elevation program as an outcome from the National Enhanced Elevation Assessment. A second NGAC effort is a paper on addressing.

Local Government Committee (LGC). Alex Rickard, chair of the LGC, reported that the LGC met on August 28. Jerry Simmons, who represented the NC Property Mappers Association, has taken a new position and will come off the LGC. Mr. Simmons had expertise in local government use of orthophotography and LiDAR and has been a real asset to the committee. NCPMA appointed Lucy Cardwell, Currituck County GIS Coordinator, to the LGC.

State Government GIS Users Committee (SGUC). Dianne Enright reported for SGUC chair John Farley. The SGUC Executive Committee met on November 7. The committee discussed

the response to Hurricane Sandy. NCDOT captured post hurricane imagery and posted links for download of the imagery on the NCDOT website as well as on ArcGIS online. NCDOT generally posts the raw, un-rectified imagery first and then replace that with the orthorectified imagery when processing is complete. The Division of Emergency Management generated shapefiles showing the differences between the 2010 imagery and the post hurricane Sandy imagery.

The SGUC received a report from Mr. Brown about the parcels project and discussed which state agencies are collecting parcel data from county government. The goal is to improve collaboration by having one agency collect and share data with other state agencies, with the approval of the local governments. NCDOT and the Division of Emergency Management will take the lead on this effort.

There was discussion about ArcGIS online and the impact on the Enterprise License Agreement (ELA). There were two amendments to the ELA, one in August and one in October. One dealt with the pricing schedule and the credit structure for ArcGIS online. An amendment will allow agencies to individually purchase a license for $2,500 and $100 for 1,000 credits. The other amendment dealt with sharing of credits among state government agencies. The allocation of credits will be similar to the current ELA arrangement.

The next general meeting of the SGUC will be November 29. She reminded everyone that the GIS Day event is Friday November 16 at the Raleigh City Museum and encouraged everyone to attend.

***Federal Interagency Committee (FIC*).** Linda Rimer, chair of the FIC, reported that elections for the FIC Executive Committee were conducted. Chad Ferguson, NRCS, is a new member and Lynn Phillips, US Marine Corps, Drew Pilant EPA, and David Wyatt, Eastern Band of Cherokee, were reelected. They join Doug Newcomb, US Fish & Wildlife Service, Tom Colson, National Park Service, and William Beatty, Federal Highway Administration, and Dr. Rimer on the FIC EC.

Dr. Rimer acknowledged that Mr. Johnson is going to report on the NC GIS Conference but wanted to express her excitement that Dr. Asbury Sallenger from USGS will be one of the presenters. A recent article in the Raleigh News & Observer reported that North Carolina is part of a hot spot for sea level rise along the Atlantic coast running from Nags Head to Boston. Dr. Sallenger was the principal investigator for that study.

Technical Advisory Committee (TAC). Colleen Sharpe, chair of the TAC, said the TAC met on September 5. The TAC reviewed the NC OneMap technical architecture and made recommendations regarding redundancy, on which Mr. Giordano reported earlier. She expressed her pleasure at the progress on this concern.

The TAC discussed open source opportunities and will continue to consider them in the future as they become more feasible. The TAC also reviewed and provided feedback on the plans for the enhancing of NC OneMap. In the future, the TAC will consider ArcGIS online and its potential applications and uses.

Management and Operations Committee (M&O). Dr. Mandell said that most of the issues on the agenda of the M&O and the NC OneMap Governance Committee have been reported by the various

committees. The M&O devoted considerable time to the EPA parcels project and is pleased with the progress.

The M&O reviewed the 2013 GICC Annual Report, which will be distributed to the GICC soon. Generally, the M&O takes advantage of the release of the Annual Report to present to the Joint Legislative IT Oversight Committee on the activities of the GICC and CGIA. In light of the election and the early date of the legislative session in 2013, it is unclear if the committee will meet before the legislative session convenes. Dr. Mandell does anticipate the opportunity for individual meetings with the offices of the Speaker of the House and the President Pro Tem of the Senate. Meeting with the Governor's Office is more problematic given the transition will likely take several months.

NC OneMap Governance Committee. Dr. Mandell reported that the committee worked very closely with staff on the NC OneMap survey. He expressed hope that the survey will help establish base line data on the use and value of NC OneMap to support the assessment of accountability measures.

2013 NC GIS Conference

Mr. Johnson said that by the time the GICC meets on February 13, everyone will have experienced the GIS conference. He expressed hope that all the members will attend. The conference will be at the Raleigh Convention Center February 7-8. He is pleased to announce the registration fees were maintained at the 2011 level. The Carolina URISA chapter will sponsor workshops on February 6.

The online registration tool is now live at the conference website - http://www.ncgisconference.com/2013/. Exhibitors are already reserving their booths. He directed members to the conference flyer to see the new permanent conference logo. He also referred the members to the Herb Stout Award announcement. There are three categories: city/town; county and regional. He encouraged local government members and everyone to promote this award, which is sponsored by the GICC. The due date is December 21 and the application process is not onerous. The 2011 winners were Wake County, City of Asheboro and the Metropolitan Sewerage District of Buncombe County. Mr. Johnson knows that there are many applications around the state that are worthy and hopes to see many submissions.

Anne Payne, co-chair of the Program Committee, said the committee has been hard at work since May. The program is close to completion and many GICC members and GICC committee and working group members will be on the program. She believes that the program is outstanding and hopes everyone will attend.

GICC Member Announcements

Dr. Mandell encouraged everyone to attend GIS Day tomorrow and to register for the GIS Conference.

ADJOURNMENT

There being no other business, the meeting was adjourned. The next meeting will be February 13, 2013 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 Website: http://ncgicc.net/Meetings/tabid/138/Default.aspx. Click on "GICC Meetings." Presentations and documents presented during the meeting are available in a Zip file for easy download.