

Geographic Information Coordinating Council
MANAGEMENT AND OPERATIONS COMMITTEE

March 13, 2017

1:00 to 3:00 PM

Center for Geographic Information and Analysis
301 North Wilmington Street, 7th Floor
Room 770A

MINUTES

1. Chair Stan Duncan welcomed Bob Brinson, John Farley, Bob Coats, Dan Madding, Tim Johnson, Joe Sewash, and Jeff Brown and on the phone Joseph Sloop, Kathryn Clifton, and Silvia Terziotti.
2. Minutes of the December 13, 2016 meeting of the Management and Operations Committee were approved for adoption as submitted.
3. NC GIS Conference Recap

Tim Johnson reported that the conference was successful with great weather, attendance exceeding 900, and a total of 40 exhibitors including 10 new vendors from as far away as Utah and the Czech Republic. David Giordano created a map showing locations of the addresses of attendees. People from neighboring states included the Geographic Information Officer of Georgia. A survey about the conference was sent out to attendees and all are encouraged to fill it out. For the purposes of planning the 2019 conference, feedback will be valuable. The format of Thursday morning went well including the “State of GIS in NC” plenary presentation by Stan Duncan and John Correllus and the keynote address by Keith Masback. Members of the Management and Operations Committee contributed to Mr. Duncan’s segment.

Planning for 2019 is underway, earlier than last time, with a Request for Proposals for a venue to go out in a month or so. A discussion added insight from other professional conferences in various North Carolina locations that may submit bids for the NC GIS 2019 Conference.

4. Working Group for Professional Land Surveying and GIS

Bob Brinson, chair of the working group, reported a subgroup will meet Thursday to refine and distill the use cases and prepare for the full working group to meet again and comment on the findings. Mr. Brinson anticipates having the use cases and issues ready for discussion with the GICC and NC Board of Examiners for Engineers and Surveyors (NCBEES) prior to the next Council meeting on May 10. He expects agreement on most of the concepts and issues between the Council and NCBEES, with nuances to clarify and perhaps a few remaining items needing more work to resolve. For example, a definition of “authoritative” data depends in part on the purpose of a dataset and more work is needed to clarify the concept.

Mr. Madding observed that a document on inclusions and exclusions (from PLS rules) generated in collaboration with the GICC in 2009 attempted to organize the Council's priority datasets by their status with respect to PLS rules. He pointed out use cases and dependencies would add value, particularly where a theme such as digital soils may or may not require a soils scientist and/or a surveyor. He urged the working group to revisit the document. Mr. Farley confirmed there are "shades of gray" within many data themes and the use case approach adds specific information. Also, a decision tree is expected to add more specific guidance than a list of inclusions and exclusions. Mr. Brinson added that the phrase "safety of the public" needs specific examples and an interpretation to make it more meaningful as a guide.

Mr. Duncan commented that Mr. Madding, in answering his survey questions in preparation for the State of GIS presentation, included questions about the PLS/GIS issue. What is the public role of the GIS practitioner in the context of professional licensing boards? Is the role what is left over after licensed professionals define their respective roles? Mr. Farley commented that a board to license and oversee GIS professionals and require compliance with geospatial standards would have value.

Mr. Johnson reiterated his intention to contact NCBEES to request a letter stating the board's understanding that the government exemption continues to be in place after changes in statutes in 2014 and 2015.

Also, Mr. Johnson attended the mid-year meeting of the National States Geographic Information Council (NSGIC) and reported PLS/GIS is an issue of discussion in Virginia, Maryland, Arizona and other states.

5. Committee Reports

Local Government Committee

Kathryn Clifton reported LGC members met on February 2 to discuss the National Emergency Number Association (NENA) GIS data model for Next Generation 9-1-1. They reviewed in detail the schema and public comments posted from around the nation. This review opportunity has prompted local government GIS coordinators to think about NextGen 9-1-1 and how to support it. GIS practitioners within a jurisdiction may work separately in various departments and 9-1-1 operations. She sees a need to bridge gaps within jurisdictions for the most effective application of GIS, particularly for NextGen 9-1-1. The next LGC meeting is scheduled for March 29.

State Government GIS User Committee

Mr. Farley reported he reached out to the Esri representative for NC state government in anticipation of discussions about the next Enterprise License Agreement. The plan is to start on terms and conditions, followed by software considerations.

Regarding a limited GIS services contract for state government, a subset of the SGUC reviewed the proposals received from vendors and will make a recommendation to the Department of Information Technology for selection of vendors.

SGUC needs to schedule its upcoming meetings.

Statewide Mapping Advisory Committee

Joseph Sloop reported he has talked with Tim Johnson and will meet with Mr. Johnson and staff to get up to speed on SMAC topics and work plan items. He is open to suggestions and requests from the Council and its committees.

Regarding geospatial data standards, Mr. Madding pointed out the land use/land cover standard adopted by the Council in 1996 may need an update. Mr. Johnson recalled it was based on USGS and Anderson classifications. Statewide land cover data since the one-time state version of land use/land cover in 1996 have been produced by the National Land Cover Data program under USGS. Mr. Madding asked if a land use standard would be applicable to parcel use descriptions in county tax systems. The fields for parcel use descriptions in NC Parcels are being populated with many variations of terms or not being populated from source county data. Also, NC Parcels will have a new field to indicate that a property is in Present Use Value or not. The SMAC process would be to define the need, identify stakeholders, and propose an update to the land use/land cover standard. For example, stakeholders may include agriculture agents looking for changes in land use from agriculture to some other use. Others may be looking for representations of vegetated areas adjacent to streams for water quality analysis and best management practices. Silvia Terziotti pointed out simple classifications are available from LiDAR data. LiDAR specifications enable classification of vegetation, for example. She has not seen an example nor a standard for deriving land cover from LiDAR in classes comparable to the National Land Cover Data.

Federal Interagency Committee

Silvia Terziotti reported on behalf of Doug Newcomb. FIC members met at the NC GIS Conference. NRCS reported all 100 counties are in the SSURGO dataset and soil attributes have been corrected for consistency from county to county. FIC plans to organize a meeting between federal and state agencies to review geospatial data availability and flows during Hurricane Matthew and find ways to sift through a wealth of data to focus on specific datasets for specific purposes.

USGS recently announced 3DEP awards, and North Carolina received funds to help with the Phase 4 LiDAR collection. Also, the Stream Mapping Advisory Committee plans to coordinate a discussion with USGS about watershed boundary data. One question will be should LiDAR-derived watershed boundaries be integrated in the national dataset to serve NC and USGS?

Regarding National Agriculture Imagery 2016 for North Carolina, Ms. Terziotti recommended Mr. Madding continue to communicate with Mr. Newcomb about when to expect access to the data.

Technical Advisory Committee

Mr. Madding reported he has identified a GIS specialist to describe installation of GeoServer. He has not found other users of this open source software who could assist.

6. Council Items

a. Annual Report

Mr. Duncan reported the Annual Report has been submitted to the Governor and legislative leaders. Mr. Duncan emphasized the need to tell the Council's value story. Committee members echoed that need in their survey responses to Mr. Duncan in preparation for the conference. Council members and staff need to find multiple ways to communicate the value proposition of the Council and GIS. Mr. Duncan welcomes ideas on ways to get noticed by legislators during the long session. For example, Representative John Torbett's participation in the conference added a valuable perspective to the proceedings. Mr. Duncan added Census 2020, *AddressNC*, Statewide Imagery and NC Parcels are more than development and maintenance stories. We need to communicate how those data resources add value.

b. Council Priorities for 2017

Mr. Brown displayed the Council [priorities](#) from the Council website. Mr. Duncan endorsed the list of priorities, but observed the list does not tell a story. Ms. Clifton described an example in Davidson County that helps tell a story. She is reviewing all the street centerlines in the dataset maintained by the county. The dataset touches many operations within the county, e.g., tax mapping, 911, planning, Census, etc., and serves the public. Mr. Farley suggested that, instead of detail about activities and tools, descriptions of how GIS helps answer questions and find solutions related to hot topics in the state are more compelling. Mr. Duncan pointed out that how GIS is used in economic development, environmental analysis, transportation prioritization, and other topics can highlight the value of GIS. A few good stories can tie together imagery, LiDAR, *AddressNC*, and other geospatial data.

Mr. Sewash observed emphasis needs to be placed on business purposes, accomplishments, and return on investment in GIS and geospatial data. We are not mapping for mapping's sake. Mr. Johnson summarized the discussion—the Council needs to go beyond informing GIS professionals to tell stories that highlight business value and involve as many of the stakeholders of the Council as possible. Ms. Terziotti noted story maps can be an effective way to communicate a narrative. Ms. Clifton reminded the committee she has a story map on line for “Are You on the Map?” stories from local governments. She offered to contact Herb Stout award winners to request participation in the story map.

Mr. Duncan returned to the public role of GIS professionals in the context of telling stories. Mr. Farley added the Council is not trying to stake out a territory given the pervasiveness of geospatial technology; the Council needs to advocate for appropriate and effective use of geospatial data, standards, and tools for business purposes.

c. Member Terms/Appointments

The committee viewed a list of Governor's appointments ending in May 2017, plus House appointments pending from 2015. Regarding the Governor's Office, the approach for Council staff and the Department of Information Technology is to ask active members with expiring terms if they are willing and able to serve another 3-year term, and prepare a recommendation to the Governor's Office for renewals as appropriate. The Governor may agree and/or appoint new members.

Mr. Duncan shared that Kevin Parrish will not be available for another term because of his responsibilities with his new employer. Mr. Duncan noted Mr. Parrish’s valuable participation as a local government GIS manager. Also, Anne Payne, retired, will not be available for another term as a private citizen and will be missed. Mr. Duncan and Mr. Johnson will follow up with the House leadership.

Congressional Matter

Mr. Duncan informed the committee of a proposed federal law of concern to GIS. US HR 482 and SB 103 are targeted to the collection, storage, and distribution of geospatial information, antiracism work, and affordable housing. The [text of the bill](#), “Local Zoning Decisions Protection Act of 2017,” include this key section:

SEC. 3. PROHIBITION ON USE OF FEDERAL FUNDS. Notwithstanding any other provision of law, no Federal funds may be used to design, build, maintain, utilize, or provide access to a Federal database of geospatial information on community racial disparities or disparities in access to affordable housing.

Mr. Coats added the immediate impact would be on the Department of Housing and Urban Development, but there would be wider impacts. Mr. Sewash added the NSGIC mid-year meeting included comments from Census Bureau staff warning the law could undermine the Census’s American Community Survey. Also, the Association of American Geographers (AAG) is taking a lead role in writing to the bill sponsors. The Coalition of Geospatial Organizations signed a letter supporting the AAG position, and NSGIC is preparing a response from states.

7. Quick Updates

a. AddressNC

Joe Sewash reported the *AddressNC* project received over 100 user stories for evaluation and development. The planning phase is moving along, and DIT has provided a new analyst to oversee project management.

The Federal Geographic Data Committee’s subcommittee for addresses has met four times since the beginning of the year. They have approved two theme definitions, and a charter is under review. A working group—including Mr. Sewash and counterparts from Minnesota and Montana—formed to articulate business value for state and local users of the National Address Database. Also, on the topic of Next Generation 9-1-1, the period for public comment on the NENA GIS data standard closed on February 28. There is a proposal to move the Address Points theme from “highly recommended” to “required” in the NENA GIS data model in anticipation of sub-addressing. Mr. Sewash explained that the address point layer can be used to validate street centerline address ranges and handle discrepancy management if not for call routing directly. This move would be a step forward.

b. Census Geospatial Data

Mr. Coats reported the Census redistricting program is in progress and will include outreach to county boards of elections. The Boundary and Annexation Survey is in the phase where non-

responses are the focus. The addressing process, the boundary process, and the State Demographer's process have overlapping time tables. The new State Demographer will work on automating the analysis of address points and jurisdictional boundaries to improve data processing methods for population estimates. Mr. Coats added the Department of the Secretary of State, Land Records Management Division, wishes to be the authoritative resource for governmental boundary data. Legislation could be involved. Mr. Farley explained NC DOT GIS provides resources for maintaining municipal boundaries for Powell Bill purposes. He has worked with Land Records Management Division on coordinating this. There could be efficiency to gain if local governments report completely and consistently to one state agency. Mr. Duncan observed that stakeholders include NC Department of Revenue regarding tax collection and distribution. Key elements include incentives for local governments to report.

The Census Bureau, Atlanta Regional Office, is in the process of scheduling brief meetings with local governments about the Local Update of Census Addresses (LUCA) and Census 2020 promotion. A series of LUCA informational sessions of 45 minutes are being scheduled for April in several locations in coordination with councils of government. Technical workshops are planned for October. LUCA materials will go out to jurisdictions in February 2018, followed by 120 calendar days to verify addresses. Mr. Coats would like to get out the message that the *AddressNC* resource will be in place for local governments to utilize and to fill gaps in LUCA responses. Mr. Coats has been asked about the cost for the State to apply *AddressNC* to assist in a complete address count. The Census Bureau will use an online story map to display participation and gaps during the process. A state web presence for Census participation is under development. Also, the NC League of Municipalities is hosting one of the LUCA training session.

Mr. Coats reported a Federal Register notice on December 14, 2016 requiring use of the Department of Homeland Security's Einstein tool:

“Consequently, with the passage of the Federal Cybersecurity Enhancement Act of 2015, the Federal statistical community has an opportunity to welcome the further protection of its confidential data offered by DHS' Einstein 3A cybersecurity protection program. The DHS cybersecurity program's objective is to protect Federal civilian information systems from malicious malware attacks. The Federal statistical system's objective is to ensure that the DHS Secretary performs those essential duties in a manner that honors the Government's statutory promises to the public to protect their confidential data.”

Also, the Census Bureau is updating a planning database that highlights variables that are related to uncounted residents for sub-county geographies. A display of areas at risk and potential revenue losses would be informative.

Mr. Coats confirmed the Census tests in Buncombe County were successful and informative.

c. Statewide Orthoimagery

Tim Johnson reported imagery has been captured for the entire 2017 Eastern Piedmont project. This early completion will help the project team reach its goal to deliver final products to Public Safety Answering Points (PSAPs) in December 2017 instead of January 2018. The project team is working on a proposal for the 2018 phase to present to the NC 911

Board on March 31. If approved by the Board, the project team will reach out to local governments in the Northern Piedmont and Mountains 2018 region to inform them of the opportunity to make use of project contractors to acquire additional products such as 3-inch resolution imagery. The project team would need to know local government intentions between July and November.

d. NC Parcels

Mr. Brown reported the Working Group for Seamless parcels met to specify minor changes to the master schema of the NC Parcels Transformer and discuss local government participation. Transformer updates are scheduled for this month. Mr. Duncan and David Baker offered to help with promotion of statewide parcels and municipal boundaries to local governments and their associations for the spring update. The working group recognized the value in developing more user stories for NC Parcels. Also, there was much interest in the session on parcels at the NC GIS 2017 Conference. Next steps include making and testing updates with the Carbon Project, Inc., covered under maintenance, and updating the NC OneMap database for publication of web services and downloadable data. The committee intends to find ways to promote metadata along with participation in NC Parcels.

On the topic of parcels and municipal boundaries, Mr. Brown demonstrated an example of applying parcel points (NC Parcels, center points of parcel polygons with associated data fields), address points (*AddressNC*), and municipal boundaries (NCDOT, Powell Bill) to determine which addresses in a county were within which municipal boundaries and which were outside.

Are situs addresses needed for locations of interest with respect to municipal boundaries? Using Burke County as an example, Mr. Brown concluded that the more geospatially reliable method is to use GIS to join the fields from municipal boundaries to each address point that falls within municipal limits. Address points are more likely to be placed near or on a structure at an address than parcel points that are more centrally located within a parcel. Address points are situs addresses by definition. Each point has an address. Parcel points have a field for situs address that is populated by many but not all counties at this stage in the NC Parcels program.

Using GIS to associate a municipality with an address point based on location is a practical method that produces a GIS file suitable for mapping and/or analysis. Mr. Coats explained the value of address points and governmental boundaries for the planned online tool for the State Demographer to display current datasets and get efficient verification or updates from local governments in support of annual population estimates by jurisdiction.

Is property information needed for locations of interest with respect to municipal boundaries? If this is the case, a method is to use GIS to join the fields from municipal boundaries to each parcel point record and its parcel information, depending on the location of each point. Given a reasonably complete and accurate dataset for municipal boundaries, using the GIS to join parcels and boundaries is more efficient than creating, populating, and maintaining a field in individual county parcel datasets.

In the example of Morganton's municipal boundaries and more than 6,000 parcels, all but 10 parcels had boundaries that were consistent with municipal boundaries. In those few instances, a

parcel point might be outside the municipal boundaries but part of the parcel polygon is inside. Mr. Duncan pointed out a land records solution in collaboration with the Department of Revenue could eventually eliminate the splitting of parcels by jurisdictional boundaries. In a related concept, NC Parcels data schema includes fields for parcel use description that are not consistently populated by counties. Parcel use descriptions are not standardized in tax systems across counties.

Mr. Sewash added *AddressNC* has reached out to NC Emergency Management and their “building footprints” dataset to help correlate the assignment of address points coincident with structures.

In response to a question from Ms. Clifton, Mr. Sewash added *AddressNC* will include the classification of the type of address (e.g., residential, commercial) in the technical schema. Also, NENA offers guidance on how a point may be placed to represent an address. In addition, the plan for *AddressNC* is to develop an Application Program Interface (API) so points can be processed dynamically to return business data for multiple purposes. For instance, an API could inform the Department of Revenue and the Division of Motor Vehicles by geocoding a point, compare it to jurisdictional boundaries, and return calculated sales tax. This process would not rely on a statewide database, but would apply authoritative addresses and boundaries and be reusable.

The meeting adjourned at 3:00 PM.