

Geographic Information Coordinating Council
MANAGEMENT AND OPERATIONS COMMITTEE

August 22, 2016

1:00 to 2:30 PM

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

MINUTES

1. Chair Stan Duncan welcomed Bob Brinson, Dan Madding, John Farley, Bob Coats, Anka Grozav (Demographic and Economic section of the Office of State Budget and Management), Tim Johnson, and Jeff Brown and on the phone Doug Newcomb, Kathryn Clifton and Ryan Draughn
2. Minutes of the July 18th meeting of the Management and Operations Committee were approved for adoption as submitted.

Note: Mr. Duncan modified the order of items on the agenda to accommodate schedules of some of the members.

3. Working Group for Professional Land Surveying and GIS

Bob Brinson reported that the working group met on August 2 and reported to the Council on August 10. The group is moving from anecdotal discussions to development of use cases to document and clarify how statutes and rules apply to various activities. This is preparation for a discussion with the licensing board to consider distinctions and overlaps between professional land surveying and GIS. Mr. Johnson will send the working group the use case template for review and comment along with other reference documents. After finalizing the template, working group members will submit use cases to Mr. Farley. He anticipates organizing use cases into categories. Use cases will relate to GIS in government and private organizations and the template will identify the type of organization. An example of distinct use cases is property mapping performed by a county property mapper (who may be state certified) and property mapping done by a contractor to the county.

An item from the first meeting was to consider a request to the Attorney General to refresh the advisory letter (April 2010) in the context of modified statutory language. The current thinking is to continue with the use cases, analyze the results, and reconsider a request for advice after clarifying the issues. Mr. Brinson explained that the Attorney General has three orders of advice, from highest to lowest: opinion, advisory opinion, and advisory letter. The latter is what the Council received in 2010; it is not published and takes the least time and effort of the three levels. This process requires careful consideration.

Considering language, the working group will be aware of differences in terminology, particularly “safety of the public” and “public safety” as they relate to professional licensed

surveying (PLS) and GIS. The NC Board of Examiners for Engineers and Surveyors (NCBEES) interprets geospatial data development by surveyors in terms of stated accuracy and precision. This is a broad interpretation. Statements of work involving geospatial data typically include requirements that are quantified. There are questions of accuracy to consider in the context of use cases. Other terms used in recent years include “inventory” of features. Mr. Farley added that the level of confidence in the precision of a digital representation of a feature is as important as the stated accuracy. For example, if for the safety of the public, a digital representation needs to be accurate within three feet for 99 percent of all features, that may require surveying techniques. For an inventory of features where the safety of the public is not a concern and data development follows applicable geospatial standards and practices, the accuracy may be within the same three feet for most of the features but the confidence level need not be near 100 percent to meet requirements and add value to a business practice. Innovations in technology have made higher accuracy in data collection more achievable in the practice of GIS. Again, use cases can help guide discussions. Also, Ms. Clifton explained that data collection subject to PLS rules can be done by unlicensed workers under the responsible charge of a PLS.

Consideration of economic impacts and other effects of statutes and rules would take place after the use cases are well defined and discussed. Regarding the impact of rules, Ms. Grozav explained that the Office of State Budget and Management (OSBM) looks at the impact of a rule before it is published in the North Carolina Register. The Rules Review Commission ensures that rule making adheres to requirements of the Administrative Procedures Act. If there is an impact on state government and/or an economic impact of \$1 million or more in a year (on public and/or private entities) an impact analysis requires a fiscal note that would be reviewed and approved by OSBM. If NCBEES issues a new rule it is that board’s responsibility to submit an impact analysis, and there would be a 60-day public comment period. There is no requirement for a fiscal note on the statutes related to PLS. It would be required for any proposed rule(s). OSBM does not have responsibility for interpretation of or application of current rules. The working group will need to distinguish between rules and policies regarding PLS and GIS.

Mr. Newcomb posed another question and/or use case to consider: is satellite imagery collected and published by an entity outside of North Carolina suitable for spatial reference, analysis and mapping by GIS professionals in the state, or does the satellite imagery fall under NC surveying rules when applied in NC?

Mr. Brinson and Mr. Farley concurred that it is best for the working group to proceed under the assumption that the government exemption from the provisions of the statutes regarding professional land surveying is still in place under the statutory changes.

Mr. Farley noted that PLS and GIS issues are evident in other states. There are variations in certification of surveyors. Mr. Johnson added that the Urban and Regional Information Systems Association conference will include a session on surveying and GIS, and the fall conference of the National States Geographic Information Council offers another opportunity to learn more about issues in other states. Work on this in North Carolina will be of interest to others.

Mr. Brinson reiterated that the working group will proceed on its use cases, issues, and definitions before engaging NCBEES in discussion of the specifics.

4. Committee Bylaws and Update Needs

Regarding the bylaws of the Council, Mr. Duncan reminded the committee that meetings may be conducted in an informal manner by the Chair. Roberts Rules of Order may be invoked. The business of the Council, including binding actions, is conducted at Council meetings which are therefore open meetings. Mr. Duncan and Mr. Johnson recently learned that meetings of working groups and standing committees are not required to be open meetings. Revision of language in committee bylaws may be considered to clarify.

Regarding procedures, for reports and recommendations from committees to the Council, the Chair may ask the Council for a motion as Mr. Duncan did on August 10. Also, a committee chair may make a motion for a Council decision on a report or recommendation from that committee. Mr. Draughn asked to clarify that a committee chair may vote on a seconded motion regarding that recommendation.

Mr. Brown displayed the bylaws of the Management & Operations Committee as an example of committee bylaws and opportunities to clarify meeting status and update the revised statutory reference for the Council (and committees). Mr. Brinson and Mr. Farley offered examples where an open meeting may impede the progress of a working group or committee developing a report or recommendation. A definition of an open meeting, with consideration of attendance and participation, will be useful in considering revisions to bylaws. Also, minor inconsistencies from committee to committee in required number of days prior to a vote on committee bylaws may be revised to be consistent. There are no references to the number of days for review of a new or revised standard in current bylaws. The practice has been a 30-day review of a standard by SMAC and, after SMAC approval, a 30-day review by the Council before the Council takes up the SMAC recommendation for a decision. These practices may be considered as suitable to specify in bylaws.

Mr. Johnson pointed out that the bylaws lack a provision for a committee or Council to vote electronically. Committee members concurred that voting via email has worked in practice and that option should be consistently stated in the bylaws.

Regarding Council meetings, Mr. Duncan requested a list of visitors in attendance to be added to the Council minutes as a regular practice.

5. Next Generation 911 and GIS in NC: review of Council presentation

In the context of Richard Taylor's presentation to the Council on August 10, Mr. Duncan recalled a series of meetings about addressing data and other foundational geographic data that involved CGIA, NCDOT, NCDOR, OSBM, the League of Municipalities, NC 911 Board and others. The emphasis was on address data as well as roads, parcels, and governmental boundaries that would be valuable to the Census Bureau in improving census geography but, to a greater extent, would benefit state and local government services and programs. Mr. Duncan was under the impression that Next Generation 911 would be implemented in 2022 but he heard 2017 for implementation from Mr. Taylor during the Council meeting. Mr. Duncan acknowledged that

there is an April 2017 deadline for a piece of implementation that stretches to 2022.

Considering the interest around the Council table in integrated datasets and the need to get a Census 2020 count that is accurate and defensible, Mr. Duncan emphasized the value of statewide addresses, roads and parcels. From the national perspective, addresses and parcels are of increasing interest with understanding that federal agencies will rely on state aggregations of local authoritative data to assemble a national resource.

Recent publicity about shortcomings in 911 call answering (prior to Next Generation 911 implementation) underscores the importance of geographic data and the need for the Council to be informed. During the Council meeting, Mr. Duncan offered assistance from the Council and its collaborators. NC 911 Board is funding statewide imagery to the benefit of all. Imagery is being delivered to counties extending 7 miles beyond their borders. Address points across county boundaries are essential, too. He observed that much of the geographic data most applicable to Next Generation 911 is in place or in progress in North Carolina. Mr. Duncan, as Chair, cannot advocate for Next Generation 911 to the General Assembly. The role of the Council is to ensure that geographic datasets for Next Generation 911 are complete and maintained.

Mr. Farley pointed out that address points have not yet been integrated with street centerlines, and routing functionality is not included in the forthcoming dataset for all public roads. Mr. Farley identified the need for a high level design of a process for applying geospatial data to Next Generation 911 in North Carolina. Answers are needed for who provides what and how it gets from source to application. NCDOT plans to meet with Mr. Taylor to diagram a process at a high level. For example, if the state is going to maintain address information on street centerlines, one program, i.e., *AddressNC*, should do that. NC 911 Board and *AddressNC* should not be collecting and compiling the same information. Also, the data used for call answering should be the same data used for response including vehicle routing. In brief, committee members concluded there is a long way to go in a short time frame, and if paths diverge there may be duplication of data development and maintenance.

Ms. Clifton observed that the NC Parcels project proved the concept of an online tool for local government to upload and translate source data as-is to a standardized version for integration to a statewide dataset. Could this workflow apply to other datasets? Mr. Brown explained that *AddressNC* used a variation on the approach whereby the state applied offline models to shared local datasets to aggregate and integrate into a statewide resource. Mr. Madding asked if Public Safety Answering Points should receive address points in the same county-plus-7-mile area as the delivered imagery. Mr. Farley explained that Next Generation 911 applies call locations to address ranges along street centerlines, not to the nearest address point. NCDOT's roads will have some address ranges, but address points need to be applied to street centerlines comprehensively and maintained.

Mr. Johnson expressed a concern that this very important Next Generation 911 program in North Carolina will take a different direction than what is in the best interest of the Council and the Department of Information Technology. The enterprise data management approach has value for Next Generation 911. Mr. Farley offered concepts for getting started: evolving *AddressNC* into the address repository for the state, gathering address data, applying statewide street centerlines,

taking an enterprise approach that NCDOT is willing to support, and assuring quality in maintenance of the resource. He described the concept of a single reporting mechanism for local governments to share geospatial data that can be disseminated to state systems (e.g., parcels, roads) as well as tools for systematic corrections and additions by local sources as part of maintenance. Mr. Coats added that the charter for *AddressNC* is in progress and observed that getting started is important with the understanding that local source datasets are imperfect and will improve. Luis Carrasco of CGIA is managing the *AddressNC* project. Mr. Johnson added that the final budget has nonrecurring money for this year and \$180,000 in recurring funds. Mr. Farley observed that whether that amount is sufficient or not, address data will need to be developed and maintained for Next Generation 911, and a central resource is the best approach. Mr. Duncan concluded that more information is needed about the approach and timeline for elements of Next Generation 911. A timeline for who needs what and when will be valuable.

6. Quick Updates

a. Population Estimates and GIS

Bob Coats explained that OSBM has met several times with the Department of Information Technology to analyze needs and opportunities for modifying how official state, county and municipal population estimates are developed. The project name is Access North Carolina Anytime (ANCA). The State Demographer (currently a vacant position) has applied models for population estimates based on the decennial census, annexation information, building permits, housing unit construction data, and other local information that are collected by mail-out surveys and maps. This process collected boundary and address data that were already collected digitally by other agencies. Ms. Grozav and Mr. Coats have led an effort to improve and streamline the data collection process. This includes consideration of how geospatial data can inform the estimates and potentially take the place of some of the survey questions posed by the State Demographer to local governments each June. Questions to consider include, how do we look at what is being developed for *AddressNC*? What types of buildings do address points represent (e.g., single-family homes, group quarters, commercial structure, etc.) and what is the update schedule for address points and municipal boundaries? OSBM plans to work with subject matter experts to find electronic ways to verify and update local boundaries and other data. There may be opportunities to consolidate data between a county and the municipalities within. Information received by the State Demographer would be quality checked and shared with programs that update address points and municipal boundaries.

Mr. Farley added that NCDOT and the Department of the Secretary of State are collaborating to improve and maintain a set of municipal boundaries that will integrate all reported annexations. Mr. Duncan pointed out that, in addition to value for population estimates, accurate municipal boundaries are essential for fair taxation and revenue distribution. Mr. Coats added that promotion to county and municipal governments will be important. He explained that OSBM needs to automate a version of a questionnaire by next June. A full integration of an online tool is targeted for 2018. Communication will be important. The Council may consider outreach. Promotion in conjunction with Census 2020 will be an opportunity, particularly regarding some of the smaller municipalities. Mr. Draughn emphasized that a message needs to go out in multiple forms repetitively. A timetable is important for planning promotion. Ms. Grozav plans outreach about the approach and will coordinate with the NC League of Municipalities (NCLM).

Ms. Grozav asked the committee what is available to tap into so OSBM is not asking for data already provided to the State. Also, how can the tool be structured to tap into data that is not currently available but is likely to be available sometime. OSBM will have contractors developing an application in the near term, but not through 2018. The data will be tabular in the short term, but local geospatial data will have value. How can the design take advantage of current systems for geospatial data? Mr. Farley observed that address data will be collected frequently for Next Generation 911; OSBM's requirements need to be met by a common set of address information. A local sign-off process on what has already been submitted to the State may be the approach. For population estimates, street centerlines alone are not applicable, but address ranges on centerlines and/or address points are valuable in identifying changes over time. Mr. Farley emphasized the business case for address points and street centerlines with address ranges as a well maintained statewide resource.

Mr. Coats suggested that a group of partners meet to discuss details. Mr. Brown suggested a technical discussion specific to NC Parcels to determine what is available for application to population estimates.

b. Census Geospatial Data

Mr. Coats reported that the Director of the Census Bureau, John Thompson, will be in Raleigh for a series of meetings with state officials August 31 and September 1, featuring an outline of the process for Census 2020. Mr. Coats invited the committee to attend a meeting at OSBM on August 31st at 2:45 PM. Information will include timelines. The partnership plan will be released in the fall. There will be opportunities to promote that Census with templates for outreach that Mr. Coats will share with NCLM and NC Association of County Commissioners (NCACC).

On a related topic, the Census Bureau has tested the concept of a rural statistical area for reporting demographics outside of metropolitan statistical areas. Renewed interest and a methodology from US Department of Agriculture have raised the possibility of defining one or more rural statistical areas for North Carolina as early as next year. Would statistics based on sampling from rural areas be useful for state needs in NC? Mr. Coats will meet with a steering committee in October in Washington, DC to review a prototype in preparation for an annual meeting in April. Also, the Governor's Office is in the process of verifying a Boundary and Annexation Survey (BAS) contact for the state. On a final note, the Census Bureau will use aerial imagery for verification of address locations; it is not known if North Carolina's statewide imagery will be utilized.

c. Statewide Orthoimagery

Tim Johnson reported that visual quality control is in progress for 13 of the 27 coastal counties. Thirty-seven local government reviewers have accounts for the QC tool, about one-third of which are from Public Safety Answering Points. The goal is to have all of the visual quality control completed by September. There are no substantial issues to report. Meanwhile, the Request for Qualifications for the Eastern Piedmont phase is expected to be released within two weeks. The goal is to get contracts in place in December well before the leaf-off flying season in early 2017.

d. NC Parcels

Mr. Duncan and Mr. Brown announced that the NC Parcels project received an award from the Urban and Regional Information Systems Association as the 2016 Distinguished Enterprise System in the Exemplary Systems in Government competition. The award presentation will take place on November 2 at the URISA GIS-Pro conference in Toronto. There will be a 20-minute presentation and a potential webinar after the conference. Mr. Duncan acknowledged the Working Group of Seamless Parcels led by Tom Morgan and Pam Carver and others on the project team for getting the job done. Mr. Duncan has reported the award to the Association of County Commissioners; the association may be in touch for more information. URISA plans a press release. Regarding the Land Records Management Program, Mr. Brown will follow up with Rich Elkins and John Bridgers in the absence of Tom Morgan (retired). Plans are underway for NC representatives to attend the conference in Toronto.

Mr. Brown displayed the latest map showing the status of NC Parcels by county, with 95 counties updated in 2016 to date. In an effort to reach out to other states and share lessons learned in the NC Parcels program, CGIA submitted an abstract for a presentation to the National States Geographic Information Council in October.

7. Committee Reports

Doug Newcomb reported that the Federal Interagency Committee (FIC) will have a general meeting on August 25. The session will feature three presentations on methods for classifying imagery and LiDAR to represent land cover and vegetation (NOAA, EPA, and USFWS). Mr. Newcomb will also describe Sentinel 2 satellite imagery now available for free in tile format.

Kathryn Clifton reported that LGC will meet this Wednesday at 2:00 and will have more information to report next time.

John Farley reported that the SGUC Executive Committee continues to work with DIT on the Master Purchase Agreement and a GIS services contract. The general meeting on August 25 will include an introduction to “What3Words” as an addressing concept. The SGUC Work Plan is updated.

Mr. Madding reported that the Technical Advisory Committee needs guidance from the M&O and Council on topics for the TAC work plan for 2016-2017. Mr. Farley suggested a white paper on a standard configuration for GeoServer, an open source software for a server, for state government users. He expects that most publishing of spatial services in state government is done at a basic level that could be handled well by GeoServer. Mr. Brown added that detail about available service formats is important to include in an analysis, considering the range of software used by consumers of web services and the value of consistent formats.

8. Council Items

a. November Meeting Agenda

The agenda is open at this time, to be determined.

b. Appointments

Three appointments are still pending. Names have been submitted to the Governor and the House. Regarding Council members by statute, Mr. Duncan visited the Community College System this morning, but the President was not available to discuss designation of a representative who can participate on the Council.

c. Annual Report

Mr. Duncan will work with Mr. Brown on drafting an annual report. Committee members are urged to obtain and submit stories from private sector users of statewide imagery, parcels, address points, and/or roads as source material for the Data Visualization Studio and for a story map for the Council.

9. Other Items

No other items.

10. Future Meeting Dates

The next meeting is scheduled for September 19, 2016.

The meeting adjourned at 3:13 PM.