

Geographic Information Coordinating Council
MANAGEMENT AND OPERATIONS COMMITTEE

June 24, 2019

1:00 to 3:00 PM

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

MINUTES

1. Chair Alex Rankin called the meeting to order, welcoming Hope Morgan, John Farley, Dan Madding, Tim Johnson, Brett Spivey, and on the phone, Paul Badr, Michael Cline (for Bob Coats) and Alice Wilson (for Jason Clodfelter).
2. Minutes of the April 1, 2019 meeting of the Management and Operations Committee were approved for adoption as submitted.
3. Access to Geospatial Data Representing Utility Infrastructure

Tim Johnson summarized the findings of the research to date. Regarding local government infrastructure data managers, as reported by Jason Clodfelter:

- Most do not provide public access to geospatial data representing water, sewer, or electricity facilities
- Even GIS coordinators have access constraints to infrastructure data from their own jurisdictions
- Written policies are rare
- Formal data sharing agreements are not common
- Perceived risk to the public versus value in easy access for users

Regarding private companies and data access, Hope Morgan found:

- Private companies involved in state emergency operations may share data for restricted access to assist in emergency response
- Gathering information on policies for distribution of geospatial data for facilities

Regarding statutes, directives and case law, Jessica Middlebrooks found:

- GS - Role of CGIA: CGIA shall manage and distribute digital geographic information...
- GS - Sensitive Public Security Information: “detailed plans and drawings of public buildings and infrastructure facilities or plans, schedules, or other documents”
- GS – Public Records: qualified exception for GIS
- US – Homeland Security Act, Presidential Directive: “critical infrastructure protection”
- NC Case Law – geographic information may be used as evidence, but no clear definition of geographic information or terms

Mr. Johnson reminded the committee that Jessica encouraged Council members to think through the state statutes concerning data access and data restriction, keeping in mind the authorization to

continue to manage and distribute geographic information under the mandated roles of the Council and CGIA.

Hope Morgan added that she talked with members of [NC Water Warn](#)—a 501(c)(3) organization that coordinates a group of utilities that help each other in emergency response and recovery operations for water and wastewater. Kenneth Waldrup, chair, suggested that the GICC request a data access policy from NC Water Warn. This is timely because the organization has been working on a policy, standards and rules for data sharing. She added that NC Water Warn sent her a set of current guidelines for context.

Hope also explained that power companies do not have data distribution policies; requests are handled on a case-by-case basis. She suggested to the committee that a request for a policy may help companies consider and clarify policies. A request should make clear what would be valuable and why it's important to the GIS community. Who-what-why? The first step is compilation of specific information about how state and local governments and private organizations would benefit from data access for a range of compelling business needs. The goal is to benefit data users without creating a cumbersome process for data providers. There is a lot of time and money involved in not knowing where utilities are located. Findings would provide a justification to create a data access policy and lead to the second step—request a policy from NC Water Warn. Sample formats would support consistency in policies for various infrastructure datasets, with customization by dataset.

Action on data distribution policies needs to account for a new initiative that emerged in recent months under an Executive Order.

John Farley explained that a vendor approached the State to build a repository of utility data for access by NCDOT. The initiative is specific to broadband, but it is more inclusive of other utility data. Governor Cooper issued [Executive Order 91](#) (March 14, 2019) that includes development of a “Dig Once” policy. John has commented to NCDOT that this is a coordination opportunity. Under an engineering services contact with NCDOT (not an IT contract), the vendor KPMG has been engaged to build a utility data repository to be housed at NCDOT.

John pointed out to NCDOT that the GICC is working on this topic as one of its priorities. The Executive Order is not specific about data and related efforts. Although limited to policy so far, the result of GICC efforts will be data access in some form. John displayed diagrams from KPMG that included language about deliverables at a high level. The vision is to “develop a centralized depository of demographic and public infrastructure data, leverage information to support ‘Dig Once’ policies, optimize investments, and improve ROI to encourage employment growth and commercial and residential development.” The plan of action is to develop a communications plan, identify data, determine accessibility, frequency and data stewards, define a platform, identify a pilot project, and develop a prototype to showcase data aggregation. NCDOT is funding the project.

John recited Section 8 of the Executive Order: “No later than July 1, 2019, DOT and DIT will jointly develop and issue a Dig Once policy to reduce the scale and number of repeated excavations related to state road projects...” and “DOT and DIT will jointly develop model Dig Once policies for potential adoption by county and municipal governments. DOT and DIT shall

seek input from the North Carolina League of Municipalities, the North Carolina Association of County Commissioners, and other stakeholders in developing these model policies.”

In discussion, observations included:

- The GICC was not involved in preparation of the Executive Order despite the geospatial aspects of a Dig Once policy and related data.
- To date, the GIS community is peripherally involved. The GICC findings on access to infrastructure data should be part of an effort to understand stakeholders.
- KPMG has talked with NCDOT, NCDPS, and NC Commerce to date. Outreach to other members of the geospatial community is not apparent.
- A vendor could add a lot of value by analyzing the return on investment (ROI) based on the cost of not having access to infrastructure data and the opportunities lost. ROI findings could be used to justify specific access policies.
- There may be a data access solution that falls somewhere between no access and full access.
- Utilities need assurance that the specifics of data sharing do not contradict Homeland Security concerns or liability.
- Broadband technology is advancing in ways that include satellites that would lessen underground broadband infrastructure.
- Local governments would benefit if data consumers could go to a single source for infrastructure data instead of making requests directly to local governments.
- Learning what KPMG is collecting in terms of data and user needs will inform the efforts of the GICC in defining who-what-why? and making a specific request to NC WaterWarn and others for data access policies.
- Communications companies are required to submit maps (typically PDF format) to the Secretary of State; could the Secretary request geospatial data representing areas?
- In some cases, approximate representations of locations may be sufficient and easier to obtain.

Given the July 1 date for a policy, the next steps for the GICC:

- Tim Johnson will ask GICC Counsel Jessica Middlebrooks for advice regarding the Executive Order.
- John Farley will coordinate a conference call for Management & Operations Committee to learn about details of the project from KPMG (through NCDOT).

Concerning the larger question of access to infrastructure data:

- CGIA will work with SMAC and SGUC to identify needs of state agencies for infrastructure data.

4. Working Group for PLS/GIS

Mr. Johnson reported that a few comments were received. He walked through the comments. In discussion, committee comments included the following:

- GIS professionals are unlikely to create soils data. Soil scientists are licensed, and most applications of soils data rely on US Department of Agriculture soils for reference.

- Geology practices were acknowledged.
- Local government data development for inventory purposes are within GIS practice.
- The government exemption covers state and local governments.
- The question of the status of a volunteer fire department producing data with respect to the government exemption may not need to be answered given the purpose of data production—an inventory. Adam Blythe works with the State Fire Marshal and may have more information.
- The purpose of data development is the key. While technology continues to advance, tools and methods were not factors in defining GIS practice with respect to land surveying.
- The Geospatial Body of Knowledge was discussed by the working group and should be included in the documentation.
- Building measurements, e.g., in an airport, are survey products.
- The purpose of creation of contours matters. Interpolation and geospatial modeling in general can be GIS practice depending on the purpose.
- A risk is that an engineer will use contour data without reading a disclaimer and use the data for a purpose for which it was not intended. Not every service provider does due diligence.
- Paul Badr advocates for licensing GIS professionals, similar to the licensing of photogrammetrists.
- Members of the GIS community, if not satisfied, may pursue changes in statutes, separate from the efforts of this working group.

The next steps:

- The M&O Committee needs to acknowledge and appreciate the comments received.
- The working group needs to report to GIS practitioners on approach, use cases, and a disclaimer. Considering that the use cases are specific and a subset of possible use cases, Tim will revisit a draft decision tree from early in the process that could be updated and serve as a graphic representation of the concepts in the use cases.
- The report can serve as a recommendation to the North Carolina Board of Examiners for Engineers and Surveyors (NCBEES).
- Propose replacement of the document on the NCBEES website that lists datasets that are included or excluded from professional land surveying. That older approach is superseded by the analysis of use cases by the working group.
- Tim will send the comments on wording of the disclaimer to the M&O Committee for review.

5. Working Group for Enhanced Emergency Response

Hope Morgan reported that the group has explored two functions: sharing geospatial data for emergency response and engaging GIS practitioners in assisting counterparts needing assistance. The group is ready to write a report. In brief, the group will take advantage of the ArcGIS Online platform for sharing data made ready before an event and data generated in response to an event. The group will take advantage of FEMA’s story map template and the “lifeline” structure they use for reporting. The group is working with CGIA and the State

Government GIS Users Committee to use the state's ArcGIS Online instance to organize downloadable data and map services. This involves data sharing by state agencies as well as local governments. There will be rules about what data to add to the platform, and it will be secure for access of approved users.

Regarding personnel, there is a mechanism in NC Emergency Management to create mission-ready packages that can be applied to GIS practitioners based on requirements and criteria from the National Alliance for Public Safety GIS (NAPSG). North Carolina Local Government Information Systems Association (NCLGISA) will continue to organize IT strike teams including GIS from NCLGISA members. There are preset financial processes that will be described in the report. The working group will complete the document by its next meeting on July 18 and be ready for presentation to the Council on August 14.

6. Quick Updates

a. Census Geospatial Data

Michael Cline, State Demographer, reported that the 2020 New Construction Program is in progress. This is the final opportunity to update address data before the 2020 Census. He will be updating group quarters addresses. A count review will occur in January-February. Statewide promotion is in progress including local complete count committees.

b. Statewide Orthoimagery

Tim Johnson reported that imagery for 2019 Southern Piedmont and Mountains is about to enter the visual quality control process. A webinar on July 16 begins the 6-week process. For the 2020 Coastal project, the annual Qualifications-Based Selection process begins in August with contracts awarded by November. Products in 2020 will include color infrared imagery for the first time. He asked Ben Shelton to figure out what imagery users need out of the color infrared product in order to advise the imagery contractors. The NC 911 Board approved funding for the color infrared line item along with the 2020 project.

Dan Madding clarified that an example of a use of color infrared imagery—deriving tree cover from imagery—would be up to the users to do or engage a vendor to do.

c. NC Parcels

Tim Johnson reported that the spring update is nearing completion. Randolph and Hertford will be updated by the end of June. Others that have not updated parcels this spring have experienced tax data publication delays, are implementing new tax systems, or have had staff turnover or illness. CGIA has a new staff person, Anna Verrill, who is taking over CGIA responsibilities for NC Parcels and will continue to collaborate with the Land Records Management Division of the Secretary of State. Anna comes to CGIA from Charleston, SC where she was a contractor for NOAA's Office for Coastal Management. She was responsible for property records in the Cayman Islands for several years.

7. Committee Status Reports

a. Local Government Committee

Alice Wilson reported that LGC met May 29 and discussed the NextGen911 effort and workshops, and members will reach out to their emergency managers and Public Safety Answering Points to urge participation. The committee discussed the municipal boundaries effort and a pilot project for improving a baseline statewide dataset. LGC also distributed use cases for GIS/PLS for review and comment. The committee also distributed information from Gary Thompson about the 2022 Reference Frame and state plane coordinates. LGC continues to participate on working groups including the group for enhanced emergency response. LGC members also contributed use cases to the GIS Technical Advisory Committee for its research on smart cities. The next meeting is August 28.

b. State Government GIS Users Committee

John Farley reported that the Enterprise License Agreement (ELA) with Esri is in progress, with state agencies making final updates to their inventories today. The next steps are to send the software needs information to Esri and to get a cost proposal back to DIT.

c. Federal Interagency Committee

No report today.

d. Statewide Mapping Advisory Committee

Since the SMAC met on April 17, several working groups have been active and making progress. The Working Group for Land Cover will collaborate with NOAA's Office for Coastal Management on a pilot project to create a 1-meter land cover product in Brunswick and New Hanover Counties, likely to be ready for the Working Group to evaluate in early 2020. By the end of 2020, new orthoimagery for the coastal region will be published, including color infrared imagery that can be evaluated as a source for land cover classification as well. The Working Group is considering alternatives for land cover products that could meet a variety of business needs identified by the group in a report to SMAC at the April meeting.

The Hydrography Working Group reviewed the stream data produced by the ATLAS project and found that the first version has geometry that is adequate for transportation planning, but not yet suitable for integration in the National Hydrography Data (NHD). The ATLAS team in collaboration with the Division of Water Resources intends to apply the newer LiDAR data in the models that create the stream locations in a higher resolution more suitable for multiple business purposes. Integration of geometry from the "Local Resolution" streams in 19 western NC counties is also being considered by the Working Group.

The Working Group for Municipal Boundaries reached out to Davie, Forsyth, Iredell and Pitt Counties for copies of local municipal boundary data to test in a pilot effort to improve a baseline dataset. Next SMAC meeting is July 17.

e. Technical Advisory Committee

Dan Madding gave an update on the Smart Cities document. There are sections that are hard to fill out and volunteers have not been forthcoming sufficiently. Tim Johnson offered more help from CGIA to complete the effort or close it out.

On another topic, John Farley suggested that migration to ArcGIS Pro is a technical issue for state and local GIS users.

8. Council Meeting Agendas for August 14 and November 6

Tim suggested that the November 6 GICC meeting, to be held at NC Emergency Management's Emergency Operations Center, feature the USGS 3D Elevation Program (3DEP) who have committee to visiting, as well as the Federal Geographic Data Committee (FGDC) to talk about the Geospatial Data Act of 2018.

For August, agenda items may include:

- Hope Morgan's report on enhanced emergency response
- Discussion of findings about public access to infrastructure data as a follow-up to the three-part presentation at the May meeting
- Recommendations about GIS/PLS

9. Other Items

Hope Morgan reported that Phase 5 of LiDAR is complete, and work is in progress on additional products at 30 points per square meter. Supplemental funding is committed to collect Quality Level 1 LiDAR in eastern NC. Cost share opportunities are available. USGS will manage the contractors and data for this next phase.

Alice Wilson added that local governments are advised to take into account displaced residents in preparation for Census 2020. Residents should be counted where they normally reside. Michael Cline offered to compile a fact sheet to help guide local governments. He acknowledged some gray areas as he understands the Census criteria. If construction is underway, residents are expected to return. If there is no structure to return to it can be a problem. Alice has been tracking this in GIS for the City of New Bern and would like to be sure other jurisdictions are doing the same.

10. Future Meeting Dates: October 14, December 16

The meeting adjourned at 2:50 PM.