



North Carolina Geographic Information Coordinating Council

Minutes

February 14, 2024

PROCEEDINGS

The council held its quarterly meeting in the William G. Ross, Jr. Environmental Conference Center, 11 W Jones St, Raleigh, and via Webex.

Welcome and Chair Announcements

Ms. Hope Morgan called the meeting to order at 1:00 pm.

This meeting is being held in accordance with the Open Meetings law, Chapter 143, Article 33C (Meetings of Public Bodies).

She introduced Ms. Heather Freeman, DIT Deputy General Counsel to review the state ethics statement below with the council:

In accordance with the State Government Ethics Act, it is the duty of every Council member to avoid both conflicts of interest and the appearances of conflict.

If any Council member has any known conflict of interest or is aware of facts that might create the appearance of such conflict, with respect to any matters coming before the Council today, please identify the conflict or the facts that might create the appearance of a conflict to ensure that any inappropriate participation in that matter may be avoided.

If at any time any new matter that raises a conflicts issue arises during the meeting, please be sure to identify it at that time.

Council members should exercise appropriate caution in the performance of their public duties should conflicts of interest or potential conflicts of interest related to issues that come before the Council. This would include recusing themselves to the extent that their interests would influence or could reasonably appear to influence their actions.

Ms. Morgan noted that during the voting process, members will be offered an opportunity to recuse themselves should there be a need.

Ms. Morgan introduced the newest member, Mr. Ed Spitler, representing the North Carolina Community College System. Mr. Spitler, a professor and chair of the Department of Engineering, Construction, and Computer Technologies at Sandhills Community College, was welcomed by the council.

Attendees were reminded to sign their names or QR codes on the attendance sheet, as this is the official record of their attendance.

Approval of November 1, 2023 Meeting Minutes

The next item on the agenda was the approval of the minutes for the November 1, 2023 meeting. The minutes were provided beforehand and were open for discussion. A motion for approval was made, with no objections or recusals noted. The meeting minutes were unanimously approved.

Geospatial Maturity Assessment

Mr. Tim Johnson was given the floor to discuss the 2023 Geospatial Maturity Assessment, a national effort conducted by the National States Geographic Information Council (NSGIC). The assessment provides a biannual report card on the state of geospatial infrastructure within each state, aiming to identify areas for improvement and recognize contributions. Mr. Johnson highlighted the significance of this assessment in shaping national spatial data infrastructure and shared insights into North Carolina's performance.

The assessment evaluates various data themes and coordinating functions within states, emphasizing factors such as data completeness, regular updates, stakeholder involvement, and open data sharing. North Carolina received an outstanding grade of A, distinguishing itself as the only state to achieve this rating. Mr. Johnson attributed this success to collaborative efforts and sustainable funding mechanisms for data initiatives in the state.

Attendees engaged in discussions regarding the assessment criteria and comparisons with other states with high ratings. Mr. Johnson provided insights into the performance of states like Pennsylvania, Indiana, and Arizona, highlighting the importance of coordination, funding, and stakeholder involvement in achieving high ratings. Specific data themes, including addresses and next-generation 911, were discussed, with emphasis on the evolving nature of geospatial data initiatives and the challenges faced by some states in achieving statewide coverage and data sharing agreements. The discussion topics included the following:

- **Grading and Evaluation:** The conversation started with a review of the grades assigned to different states based on their GIS efforts, with North Carolina being highlighted as a leader.
- **Data Completeness at County Level:** There was a discussion about the completeness of GIS data at the county level within each state, with some states having incomplete coverage due to various reasons such as opting out of certain programs.
- **Challenges and Opportunities:** States discussed challenges they face in achieving higher grades, such as funding, staffing, and coordination across state boundaries. They also highlighted opportunities for improvement, such as sharing best practices among states and focusing on specific areas like broadband mapping and NextGen 911.
- **Economic Impact:** The economic impact of GIS initiatives was emphasized, including how GIS data can lead to securing additional funding, as seen in the example of broadband mapping in North Carolina.
- **Collaboration and Knowledge Sharing:** There were suggestions for increased collaboration and knowledge sharing among states, including organizing meetings with neighboring states and participating in national conferences like the National Geospatial Advisory Committee (NGAC).
- **Return on Investment (ROI):** There was interest in quantifying the ROI of GIS investments to demonstrate the value of GIS initiatives to stakeholders.

- Future Directions: Participants expressed interest in exploring new frameworks and data sets for GIS, such as those related to smart cities, transportation corridors, and critical infrastructure.

Overall, the discussion highlighted the importance of GIS in various state initiatives, the need for collaboration and knowledge sharing among states, and the potential for quantifying the economic and social impact of GIS investments. Mr. Johnson concluded his presentation by reaffirming the importance of sustained efforts in geospatial data management to support state and national objectives. Attendees expressed appreciation for the insights provided and discussed potential strategies for further improvement in North Carolina's geospatial initiatives.

LiDAR Business Plan

Mr. Gary Thompson provided an update on the LiDAR (elevation) data business plan in North Carolina, emphasizing the significance of elevation data collection historically for supporting floodplain mapping programs. He highlighted North Carolina's pioneering efforts in statewide data collection, noting that it was one of the first states to undertake such an initiative. The initiative, which began after hurricanes Fran and Floyd, has since progressed through three iterations of elevation data collection, with funding sourced from various channels, including the Floodplain Mapping Program and grants.

The purpose of the business plan is to demonstrate the benefits of elevation data to potential partnering agencies. He referenced a 3D nation study from the USGS to underscore the value of elevation data and outlined the structure of the business plan, which includes sections on introduction, overview, goals, benefits, and case studies. Notably, the plan aims to continually update case studies to reflect evolving uses of elevation data.

Mr. Thompson provided an update on ongoing data collection efforts, including current and future phases, and plans for transitioning to a new horizontal and vertical datum. Additionally, plans to enhance the story map about elevation data in North Carolina were discussed, involving the recruitment of an intern to assist with the project.

Standards for elevation data in North Carolina were discussed, with Mr. Thompson highlighting adherence to the 3DEP standards. However, he noted challenges in securing grant funding due to the state's advanced data quality, which exceeds the base requirement for 3DEP grants.

The presentation also touched upon the history of data collection and distribution, particularly through partnerships with the Department of Transportation (DOT) and NC Division of Emergency Management agencies. Recommendations included aligning the elevation data collection schedule with imagery project timelines to ensure timely availability of updated data.

Discussion followed the presentation regarding the incorporation of new 3DEP requirements into future iterations of the business plan, with the possibility of inviting USGS representatives to provide insights on upcoming plans.

The LiDAR business plan will be reviewed by the Working Group for Orthoimagery and Elevation and the SMAC and will be presented to the GICC later this year.

Land Cover Working Group Update

Colleen Kiley provided an overview of the Land Cover Working Group's recommendations and recent developments. She emphasized the significance of the state-funded land cover data, highlighting that the last such funding occurred in 1996. The existing statewide land cover data, at 30 m resolution, was acknowledged as outdated and limited in scale.

The Land Cover Working Group was established in response to a directive from the SMAC in 2018 to evaluate the need for improved land cover data. A report was produced in 2019, and subsequent developments in 2023 prompted a review of the group's recommendations. Ms. Kiley outlined the primary objectives of the 2018 report, which included achieving a 1 m resolution or better product, reliable distinction between various land cover categories, and a frequency of at least annual classification. Upon review in 2023, the working group agreed that the annual update was likely not feasible, and that an update cycle of every 5 years would be in line with the Coastal Change Analysis Program (C-CAP) update cycle and meet most stakeholder needs.

The presentation emphasized the importance of collaboration with national efforts and highlighted the C-CAP as a cost-effective partnership for obtaining land cover data. The transition from a 30 m to a 1 m product within the C-CAP was discussed, along with its potential benefits for change detection and wetland mapping.

Ms. Kiley shared the good news that funding had been secured for statewide land cover mapping, including enhanced wetland mapping. Various agencies, including the Division of Marine Fisheries, Division of Coastal Management, Albemarle-Pamlico National Estuary Program, and the State Energy Office, have committed funding for different regions of the state. South Carolina is funding a portion of the state that includes watersheds flowing into the neighboring state. The presentation underscored the importance of continuous funding and maintenance of land cover data to avoid reverting to outdated datasets.

Finally, Ms. Kiley highlighted the recent executive order from the governor, which directed DEQ to update wetland mapping data and evaluate the feasibility of obtaining high-resolution land cover data. The presentation concluded with recommendations from the Land Cover Working Group, emphasizing the need for continued support from the SMAC and GICC to ensure the success of land cover mapping efforts.

Broadband Update

Mr. Ben Shelton presented broadband expansion initiatives with a comprehensive overview of the current landscape. He emphasized the critical role of broadband connectivity in addressing various societal needs, including remote learning, telehealth services, economic development, and agricultural applications. Mr. Shelton underscored the heightened importance of broadband infrastructure in the wake of the COVID-19 pandemic, which starkly highlighted the digital divide and the urgency of expanding broadband access.

Mr. Shelton proceeded to discuss the diverse funding sources fueling broadband expansion efforts in the state. He outlined the evolution from modest state appropriations to significant allocations from the American Rescue Plan Act (ARPA) and the Bipartisan Infrastructure Bill Act, amounting to over \$2.5 billion. This unprecedented funding presents a unique opportunity to tackle broadband accessibility challenges comprehensively.

The presentation delved into the technical aspects of broadband data collection, particularly focusing on the FCC's broadband data collection initiative. Mr. Shelton provided insights into the methodology of identifying unserved and underserved locations based on internet speed criteria, highlighting the complexity of accessing and refining this data. He elaborated on the rigorous process of challenging inaccurate FCC mapping to ensure the accuracy of broadband coverage maps, crucial for effective allocation of resources.

Mr. Shelton then shifted the focus to the utilization of GIS data, emphasizing the significance of building footprints in enhancing mapping accuracy. He detailed the innovative approach of leveraging artificial intelligence (AI) models and cloud computing to extract building footprints efficiently. By significantly reducing processing time, this approach enables expedited updates to statewide building footprint data, aligning with recommendations from the Governor's Institute on Community Design.

Demonstrating the challenge process, Mr. Shelton showcased maps indicating eligible locations for broadband expansion programs. He highlighted the importance of transparency and accountability, emphasizing the accessibility of all initiatives on NC OneMap. Through ongoing collaboration with the NC Division of Emergency Management, plans are underway to further enhance statewide building footprint data, ensuring its accuracy and relevance in broadband expansion efforts.

Transitioning to funding mechanisms, Mr. Shelton emphasized the critical role of address data in defining project areas and tracking funding allocations. He illustrated how previous projects, particularly those under the Growing Rural Economies with Access to Technology (GREAT) Grant Program, relied on address data to allocate resources effectively.

Mr. Shelton underscored the significance of GIS data in guiding policy decisions and ensuring accuracy in broadband mapping. He highlighted the essential role of local GIS data in improving the accuracy of FCC maps and facilitating effective resource allocation.

Mr. Shelton discussed the finalization of scopes of work for the Completing Access to Broadband (CAB) program and ongoing efforts to address protests from providers regarding mapping inaccuracies. He also outlined plans to leverage ARPA funding to prepare for the upcoming Broadband Equity, Access, and Deployment (BEAD) program. Mr. Shelton's highlighted the importance of community anchor institutions and their role in driving broadband adoption. He stressed the importance of ensuring these institutions have adequate internet access to support community initiatives effectively.

The presentation concluded with an interactive Q&A session, during which participants posed questions regarding the quality of outputs from different AI models and expressed appreciation for the impact of broadband expansion efforts on rural communities.

Committee Reports

Statewide Mapping Advisory Committee: Paul Badr provided an overview of the Statewide Mapping Advisory Committee's recent activities. Working groups leading Seamless Parcels, Orthophotography, and Land Cover are progressing well, and previous GICC presentations covered other topics on the SMAC agenda. He also expressed enthusiasm for the upcoming review of the North Carolina LiDAR business plan.

Technical Advisory Committee: Matt Helms reported on the Technical Advisory Committee's discussions, particularly focusing on the status of the infrastructure working group. He noted a degree of uncertainty regarding the infrastructure working group's next steps and highlighted the need for further direction. He also mentioned an upcoming meeting in March to delve deeper into the Big Data task and announced the retirement of a longstanding member, Tobin Bradley, necessitating a replacement from the LGC.

Local Government Committee: Natalie Walton-Corbett outlined the recent activities of the Local Government Committee, emphasizing presentations on migrating to experience builder tools and lead pipe mapping by the City of Kannapolis. She discussed plans for future meetings, including topics such as

remote sensing, and underscored the committee's commitment to supporting and celebrating the efforts of local governments.

Federal Interagency Committee: Jeremy Baynes provided insights into the committee's recent endeavors, including presentations on the QGIS Slayer plugin and FEMA critical infrastructure. He also highlighted ongoing recruitment efforts for the executive committee and encouraged participation in the upcoming March meeting to enhance engagement.

State Government GIS Users Committee: Melanie Williams offered a detailed overview of the State GIS Users Committee's activities, focusing on discussions surrounding data sharing best practices, metadata editing, and the recognition of authoritative data sources. She emphasized the importance of collaboration and visibility of projects, highlighting successes from 2023 and setting goals for 2024.

Management & Operations Committee: Hope Morgan summarized the Management & Operations Committee's recent discussions, which included reflecting on achievements from 2023 and outlining plans for the upcoming year. She mentioned considerations for taking meetings on the road to engage with stakeholders and encouraged in-person attendance for select sessions. Additionally, she announced forthcoming presentations from census and other groups.

Adjournment

Ms. Morgan thanked the council members for their participation and adjourned the meeting at 3:00 PM.

2024 GICC Quarterly Meeting Dates

May 8th

August 21st

November 13th

Member Attendance

Last Name	First Name	Present	Agency/Organization	Proxy
Averett	Steve	Yes	City of Greensboro	
Badr	Paul	Yes	GPI, Geospatial Division	
Baker	David	Yes	NC Association of County Commissioners	
Barron	Amy	Yes	Duke Energy	
Baynes	Jeremy		US EPA	
Coats	Bob	Yes	Office of State Budget & Management	
Dowdy	Jason	Yes	CACI, Inc	
Duncan	Stan	Yes	Retired, State and Local Government	
Enright	Dianne	Yes	Department of Health & Human Services	
Grantham	Dean	Yes	Department of Environmental Quality	
Halls	Joanne		UNC Wilmington	
Harris	Pokey	Yes	NC 911 Board	Tom Rogers
Hedley	Jason		Colliers Engineering and Design	
Helms	Matthew	Yes	Charlotte Water	
Kempton	Dan	Yes	Department of Information Technology	Jim Weaver
Koonts	Sarah	Yes	Department of Natural and Cultural Resources	
Marshall	Elaine F.	Yes	Office of Secretary of State	Rich Elkins
McCracken	Marty		Department of Justice	
Morgan	Hope	Yes	AECOM	
Nida	Chris	Yes	NC League of Municipalities	
Cox	John	Yes	Department of Administration	
Sandoval	Allan		Department of Commerce	
Shankle	Bill		Tri South Commercial Realty	
Serkin	Allen		Cape Fear Council of Governments	
Simpson	Tony		Department of Revenue	
Tate	Brooks	Yes	NC Utilities Commission	
Thompson	Gary	Yes	Department of Public Safety	
Thurman	Linda	Yes	UNC Charlotte	
Vose	Christian	Yes	Department of Agriculture and Consumer Services	
Walton-Corbett	Natalie	Yes	City of Greenville - LGC representative	
Williams	Melanie	Yes	NCDEQ - SGUC Chair	
Wilson	Eric	Yes	Department of Transportation	
Wrenn	Vanessa	Yes	Department of Public Instruction	Jeremiah Jackson