

# North Carolina Geographic Information Coordinating Council

#### Minutes

### August 20, 2025

#### **PROCEEDINGS**

The Council held its quarterly meeting at the William G. Ross, Jr. Environmental Conference Center, 121 West Jones Street, 4th floor, Raleigh, North Carolina, and via virtual meeting connection.

#### **Welcome and Chair Announcements**

Ms. Hope Morgan, GICC Chair, called the meeting to order after confirming a quorum was present.

The Chair reminded everyone that the meeting was being held in accordance with open meeting laws, aligning the GICC with other statutory boards and commissions.

Ms. Hope Morgan read the ethics statement to 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 informed in-person attendees of the required QR code attendance registration process and acknowledged those attending online, noting that their attendance information was already recorded.

Ms. Morgan announced important changes to the meeting schedule. The November 2025 meeting has been moved from November 12th to November 5th. The meeting will take place at the Carolina Pines Regional Council, 4307 Emperor Blvd, Suite 110 in Durham, NC.

# **Approval of March 2025 Meeting Minutes**

A motion was made to approve the March 2025 GICC meeting minutes as written, which was carried unanimously. There were no recusals.

## **Datum Change Panel Discussion**

Ms. Morgan opened the panel discussion on the upcoming datum change, noting it was originally scheduled for 2022 but is now scheduled for 2026. She acknowledged the significant impact this change will have on much of the data used daily and introduced the panel consisting of Gary Thompson, Vice Chair of GICC and North Carolina Geodetic Survey (NCGS) Chief; Charlie Geoghegan, National Geodetic Survey (NGS) Regional Geodetic Advisor for the Mid-Atlantic States; and Melita Kennedy, Principal Product Engineer on Esri's Projection Engine team.

Mr. Geoghegan explained that NGS is the agency responsible for the new datums as part of their mission to provide the national spatial reference system. The updates to both horizontal (NAD 83) and vertical (NAVD 83) datums are long overdue, reflecting improvements in technology and the ability to derive better, higher precision, and more accurate solutions. The rollout for the new datum has already started in beta form. The beta website now contains North American Pacific Geopotential Datum (NAPGD) 2022. State plane coordinates parameters have been finalized. North American Terrestrial Reference Frame (NATREF) 2022 has been released to beta. Four reference frames are being released with one for each plate covering US territories including the Caribbean, Marianas, Pacific, and the continental US. The rollout process involves a public review period on the beta site for feedback and comments, followed by review by the Federal Geodetic Control Subcommittee (FGCS) consisting of 24 federal and non-federal organizations, then a vote by FGCS, and finally the official release. Mr. Geoghegan emphasized that NGS is working to make the transition as simple and painless as possible and stressed the importance of feedback during the beta period.

Mr. Thompson explained that the state's timeline depends on NGS completion of the national process. North Carolina has legislation already in place (General Statute 102.1-2) that will automatically adopt the new datums once NGS officially releases them. The state plans to incorporate the new datum into statewide products when phases reach a new cycle after the datum is adopted. The Statewide LiDAR project, which will fly twelve counties in western North Carolina to complete statewide collection in 2026, will use the current datum. The new horizontal and vertical datums will be used for the 2027 coastal phase, though implementation remains funding dependent. The 911 Imagery Project will finish capturing imagery for the state on current horizontal and vertical datums, then switch to new datums when the project returns to the coast in 2028. Flood maps will remain on NAD 83 and NAVD 88 until further guidance from the Federal Emergency Management Agency (FEMA).

Ms. Kennedy explained Esri's approach to supporting the new datums. Their implementation strategy involves targeting ArcGIS Pro's second release (Fall 2026) to avoid premature implementation of changing specifications. Updates for ArcGIS Enterprise and Server will follow approximately one month after Pro, and ArcGIS Maps SDK will pick up changes in their semi-annual releases. Since the new datum will switch from use of the US Survey Foot to the International Foot, Ms. Kennedy clarified that Esri will continue to support US Survey Feet, but not for the 2022 datums

Ms. Kennedy clarified that in their technical approach, Esri obtains underlying grid files from NGS transformations rather than including the NGS Conversion and Transformation Tool (NCAT) directly. The Coordinate Systems data setup, which is separate from Pro/Enterprise setups, contains transformation grids, and workflows are already established to incorporate new transformation grids. Ms. Kennedy recommended conducting a "spring cleaning" of existing data, to verify actual versus reported datums, to update data to NAD 83 (2011) before transitioning to 2022, to assess data accuracy requirements, and to determine appropriate transformation methods.

Mr. Geoghegan outlined NGS transformation tools, specifically NCAT. The tool is currently in beta format on the beta website and initially limited to state plane coordinate system transformations. Future

versions will include datum-to-datum transformations, while the current NCAT tool works for existing datums (NAD 83 and previous). Mr. Geoghegan recommended stakeholders take different approaches for determining accuracy of coordinates depending on their accuracy needs. To get the best 2022 coordinates, he recommended re-observing data and processing with 2022 coordinates. The second-best approach involves processing observational data through 2022 products. The least accurate method uses transformation tools, which are model based with associated error. However, Mr. Geoghegan noted that Mr. Thompson's diligence with GPS when supplying observational data on benchmarks will provide North Carolina with a superior transformation model, particularly for heights, compared to most other states.

For state agency coordination, Mr. Thompson announced the restart of the Datum Change Working Group to engage all state agencies, assess needs, and provide preparation assistance. The working group is scheduled to meet on August 28, 2025. Projects that span the transition period will result in datasets existing on both current and new datums, making metadata critical for proper data management. Horizontal coordinates will have dramatically different numerical values, which provides a built-in accuracy check, while vertical differences of approximately 3/10 of a meter in North Carolina will require careful attention. The transition from US Survey Foot to International Foot will add further complexity to the implementation process. Quality control measures will require survey plats to include datum information per board rules, with professional surveyors providing metadata information including datum specifications. Review procedures for incoming datasets and certification requirements will also be enhanced to ensure accuracy during the transition period.

Mr. Thompson reported extensive education efforts with the surveying community including workshops with North Carolina Society of Surveyors, Secretary of State workshops for land records manager, and an additional workshop planned for November. Former NGS director and current Geodetic Survey Advisory Committee chair Dave Zilkoki wrote articles about new datums in "The Tarheel Surveyor" publication. Council members inquired about neighboring states' adoption plans. Mr. Geoghegan indicated he was not aware of any states choosing not to adopt the new datums, though the adoption process may vary by state legislation.

NGS will focus on supporting small businesses because software vendor coordination shows that while major vendors including Esri, Trimble, and Leica are coordinating with NGS, smaller shops may face challenges with software update costs. Mr. Paul Badr mentioned that in the private sector, many companies are sending their leaders and project managers to attend classes with survey societies to be informed and prepared.

To determine whether a survey product is using the new datum, Mr. Thompson clarified that board rules require professional surveyors to provide datum information on survey plats, which will serve as the primary check for incoming data accuracy. Regarding transformation between legacy datums, NGS transformation tools will handle conversions from older datums (including NAD 27), though accuracy may be reduced due to model limitations. Mr. Thompson emphasized the critical importance of maintaining accurate metadata throughout the transition period, with particular attention to horizontal and vertical datum specifications, foot unit specifications (US Survey vs International), and project start/completion dates relative to datum adoption. North Carolina will utilize fixed coordinates rather than implementing velocity components, simplifying the state implementation. A new tidal datum is expected as well but timeline remains uncertain.

#### HurriUp Update and Disaster Preparedness Checklists

Ms. Natalie Walton-Corbett, Chair of the Local Government Committee (LGC) and GIS Coordinator for the City of Greenville, provided an update on the HurriUp meeting and disaster preparedness efforts. The

HurriUp program originated after Hurricane Matthew (2016) and Hurricane Florence (2018), which significantly impacted eastern North Carolina. The first meeting was held in 2019 to address the need for local government GIS professionals to collaborate, share resources, and build support networks for disaster response.

The second HurriUp meeting was held on July 31, 2025, hosted by the City of Greenville in their Council Chambers. The event featured attendance of 70+ participants in person and 273 unique visitors via live stream, with the full day event recorded and available on YouTube. Participants included state, federal, local, and private sector partners. The City of Wilmington and Pasquotank County shared hurricane response experiences during their presentations, and multiple state agencies and federal partners presented tools, resources, and protocols. Key presentations included a Working Group for Enhanced Emergency Response (WGEER) overview by Mr. Christian Vose, NC Emergency Management (NCEM) applications and tools overview, National Oceanic and Atmospheric Administration (NOAA) Digital Coast data and information, a new Blueprint application preview from the NC Department of Environmental Quality (DEQ), and Esri disaster support team resources and cloud capabilities.

Ms. Sally Vaughn, Person County GIS Manager, presented the comprehensive disaster preparedness checklists developed by the Local Government Committee. The checklists are organized into four phases:

- Annual tasks include verifying staff ICS training, coordinating with local communities and
  participating in EOC exercises, documenting and updating operations plans, assessing equipment
  and infrastructure (including generator access and plotter mobility), compiling emergency contact
  information (including Esri subscription managers and credit allocation contacts), developing and
  testing data backup plans, creating emergency response templates, and establishing data
  management and quality procedures.
- <u>Pre-event tasks</u> involve creating maps and preparing templates, executing and testing data backups, coordinating with Emergency Management, contacting the LGC and WGEER, identifying and mapping critical infrastructure, training staff on damage assessment and search andrescue tools, and distributing tools to first responders.
- <u>During event</u> tasks encompass following EOC operations procedures, documenting and maintaining record keeping protocols, coordinating with IT for GIS services monitoring, and preparing for offline operations. Coordinating with EOC and maintaining flexibility along with sustaining communication procedures are critical during active events.
- Post-event tasks include preserving event documentation covering high water marks, flooded areas, and response data, maintaining records throughout the entire event cycle, executing demobilization procedures, managing public information and communication protocols, supporting damage assessment efforts, reviewing data accuracy for incoming information, and preparing dashboards for command staff inquiries.

The checklists are designed as living documents that will be updated annually or bi-annually based on new lessons learned, feedback from users, technological changes, and evolving response procedures. A feedback survey is available on the <u>disaster preparedness website</u> for continuous improvement. The LGC has created a comprehensive resource website that serves as a central repository for disaster preparedness checklists, emergency response tools and applications, training materials and documentation, contact information and coordination protocols, and links to state and federal resources.

#### **Legislative Action Updates**

Ms. Morgan provided updates on legislative actions affecting GIS and geospatial activities. <u>House Bill 923</u> did not pass and would have required cities and counties to remove personal identifying information from geographic information systems under General Statute 132-20. The bill would have impacted city

and county, GIS information and increased the workload for local GIS data maintenance. While it did not advance, Ms. Morgan noted the potential for similar legislation to reappear. Active legislation with GIS components includes the Farm Act (Senate Bill 355) which passed last year and contains GIS disclaimer provisions. House Bill 1002 (Section 2526) addresses electric grid and energy supply legislation containing geospatial components. House Bill 765 covers local government land development regulations. House Bill 74 covers appropriations for infrastructure improvements and mentions GIS in the context of its for value for planning and identifying locations. Mr. Rich Elkins noted that Senate Bill 493 addresses land use clarifications and changes (including property ownership requirements for siting school buildings), contains restrictions on ETJs, has passed the Senate, and is still under House consideration. Mr. Elkins also added that House Bill 295 requires DOT to identify property corners for right-of-way acquisitions.

Ms. Morgan noted that AI-assisted searches have improved bill tracking by identifying GIS and geospatial references in legislation that might not be caught by traditional keyword searches. She recommended regular searches using terms like "geospatial," "GIS," and "survey." Mr. Elkins mentioned that he is tracking over 100 bills with potential GIS impacts, including legislative initiatives, charter amendments, and various land use restrictions.

#### **Committee Updates**

<u>Technical Advisory Committee (TAC)</u> - Matt Helms: Reported by Ms. Colleen Kiley in Mr. Helms' absence. The current focus is the big data best practices guide, with completion expected by next quarter. The upcoming focus includes continued work on big data solutions and recommendations for moving beyond physical media transfer ("sneaker net") for large dataset sharing.

Statewide Mapping Advisory Committee (SMAC) - Paul Badr: The past quarter focus included the Hydrography Working Group's development of a Memorandum of Agreement between DOT, DEQ, and DIT, including a governance document for geometry changes, updates, approval processes, and specifications for map and hydrography alignment with ATLAS and DEQ business processes. A governance group will be created to approve changes.

The next quarter focus will continue Atlas Hydrography and Hydrography Working Group coordination. The Seamless Parcels Working Group will continue to work with counties to pull data directly from CAMA vendors. The Administrative Boundary Working Group will focus on preparation for 2026 Census Boundary and Annexations survey. LGC support will address opportunities for improvement related to data availability for disaster response and emergencies.

<u>Federal Interagency Committee (FIC)</u> - Jeremy Baynes: The current focus involves building and nurturing relationships with open channels of communication between local, state, and tribal partners. Activities include a successful joint meeting with SGUC completed, an upcoming joint meeting with the LGC planned, working to increase NASA engagement, and personnel changes including Erik Hund's upcoming retirement from NOAA. Federal data dependencies continue to emphasize documenting federal data uses and tools to help federal agencies understand the necessity of maintaining resources.

State Government GIS Users Committee (SGUC) - Melanie Williams: Recent activities include a successful joint meeting with FIC, a NSGIC accessibility webinar, and preparation for 2026 accessibility deadline affecting state GIS resources. The SGUC is beginning discussions on developing a statewide GIS strategic plan, examining funding resources, implementation approaches, and lessons learned from other states.

<u>Local Government Committee (LGC)</u> - Natalie Walton-Corbett: Major accomplishments include the HurriUp meeting and disaster response documentation as detailed above. The group consistently has over

100 participants in their general meetings and continues to pursue efforts to expand the community. Goals include arranging speakers from federal agencies to give presentations at these meetings.

<u>Management and Operations (M&O)</u> - Hope Morgan: The current focus includes goal implementation across committees, meeting coordination and planning, participation planning for county councils and other groups, and information sharing about GICC existence and mission. Priority items encompass hydrography data, hurricane response integration, and Council visibility and outreach expansion.

## **Geospatial Maturity Assessment and GIO Report**

Mr. Matthew McLamb provided the GIO report, beginning with the geospatial maturity assessment. The 2025 assessment status shows submission completed with 11 themes including nine themes graded and two themes (geo-enabled elections and hydrography) for information gathering only. Themes included addresses, coordination, elevation, geo-enabled elections, geodetic control, government units (subdivided into municipal, county, and tribal government boundaries), Next Generation 911, orthoimagery, parcels, and transportation. Results are expected in the Fall of 2025, possibly at the NSGIC conference in September. The assessment contained significantly more questions this year (20-30+ per theme) versus 7-8 in 2023. North Carolina remains the only state with an A grade from 2023 assessment.

Mr. McLamb announced CGIA personnel changes. Colleen Kiley has been promoted to Assistant Director effective June 30, 2025, and the Coordination Program Manager position previously held by Colleen is now vacant and posted. The position went live August 19, 2025, with applications due August 26, 2025, though an extension is expected.

Mr. McLamb reported that the GeoGov Summit will be held September 8-10, 2025, near Dulles Airport outside Washington DC. The GICC will participate in various panels covering topics including NSDI, integrating emerging technologies, case studies, and emergency disaster preparedness. This third annual conference has growing attendance and provides opportunities to connect with federal partners, industry leaders, other states, and academia.

#### Adjournment

Following completion of all agenda items, the meeting was adjourned at 2:42pm, with thanks to all participants both in-person and virtual.

# **2025 GICC Quarterly Meeting Dates**

November 5<sup>th</sup> (Durham)

# **Member Attendance**

First	Present	Proxy	Agency/Organization
Steve	Yes		City of Greensboro
Paul	V-Yes		GPI, Geospatial Division
David			NC Association of County Commissioners
Amy	Yes		Duke Energy
Jeremy	V-Yes		US EPA
Lee			CBRE
Bob	Yes		Office of State Budget & Management
Jason			CACI, Inc
Stan			Retired, State and Local Government
Dianne			Department of Health & Human Services
Dean	Yes		Department of Environmental Quality
Joanne	V-Yes		UNC Wilmington
Pokey			NC 911 Board
Jason	Yes		Stewart Engineering
Matthew			Charlotte Water
Christie			Department of Information Technology
Sarah			Department of Natural and Cultural Resources
Elaine	P-Yes	Rich Elkins	Office of Secretary of State
Larken	Yes		Department of Justice
Норе	Yes		AECOM
Chris	Yes		NC League of Municipalities
John			Department of Administration
Allan	Yes		Department of Commerce
Allen			Cape Fear Council of Governments
Michael	Yes		Department of Revenue
Ed	V-Yes		NC Community College System
Gavin			NC Utilities Commission
Gary	V-Yes		Department of Public Safety
Linda	Yes		UNC Charlotte
Sallie	Yes		Person County
Christian	Yes		Department of Agriculture and Consumer Services
Natalie	Yes		Greenville - LGC representative
Melanie	Yes		NCDEQ - SGUC Chair
Eric	Yes		Department of Transportation
Jeremiah	<b>†</b>	<b>-</b>	Department of Public Instruction
	Steve Paul David Amy Jeremy Lee Bob Jason Stan Dianne Dean Joanne Pokey Jason Matthew Christie Sarah Elaine Larken Hope Chris John Allan Allen Michael Ed Gavin Gary Linda Sallie Christian Natalie Melanie Eric	Steve Yes Paul V-Yes David Amy Yes Jeremy V-Yes Lee Bob Yes Jason Stan Dianne Dean Yes Joanne V-Yes Pokey Jason Yes Matthew Christie Sarah Elaine P-Yes Larken Yes Hope Yes Chris Yes John Allan Yes Allen Michael Yes Ed V-Yes Gavin Gary V-Yes Sallie Yes Christian Yes Natalie Yes Melanie Yes Eric Yes	Steve Yes Paul V-Yes David Amy Yes Jeremy V-Yes Lee Bob Yes Jason Stan Dianne Dean Yes Joanne V-Yes Pokey Jason Yes Matthew Christie Sarah Elaine P-Yes Rich Elkins Larken Yes Hope Yes Chris Yes John Allan Yes Allen Michael Yes Ed V-Yes Gavin Gary V-Yes Christian Yes Natalie Yes Melanie Yes Melanie Yes Eric Yes

V- Virtual attendee

P-Proxy attendee