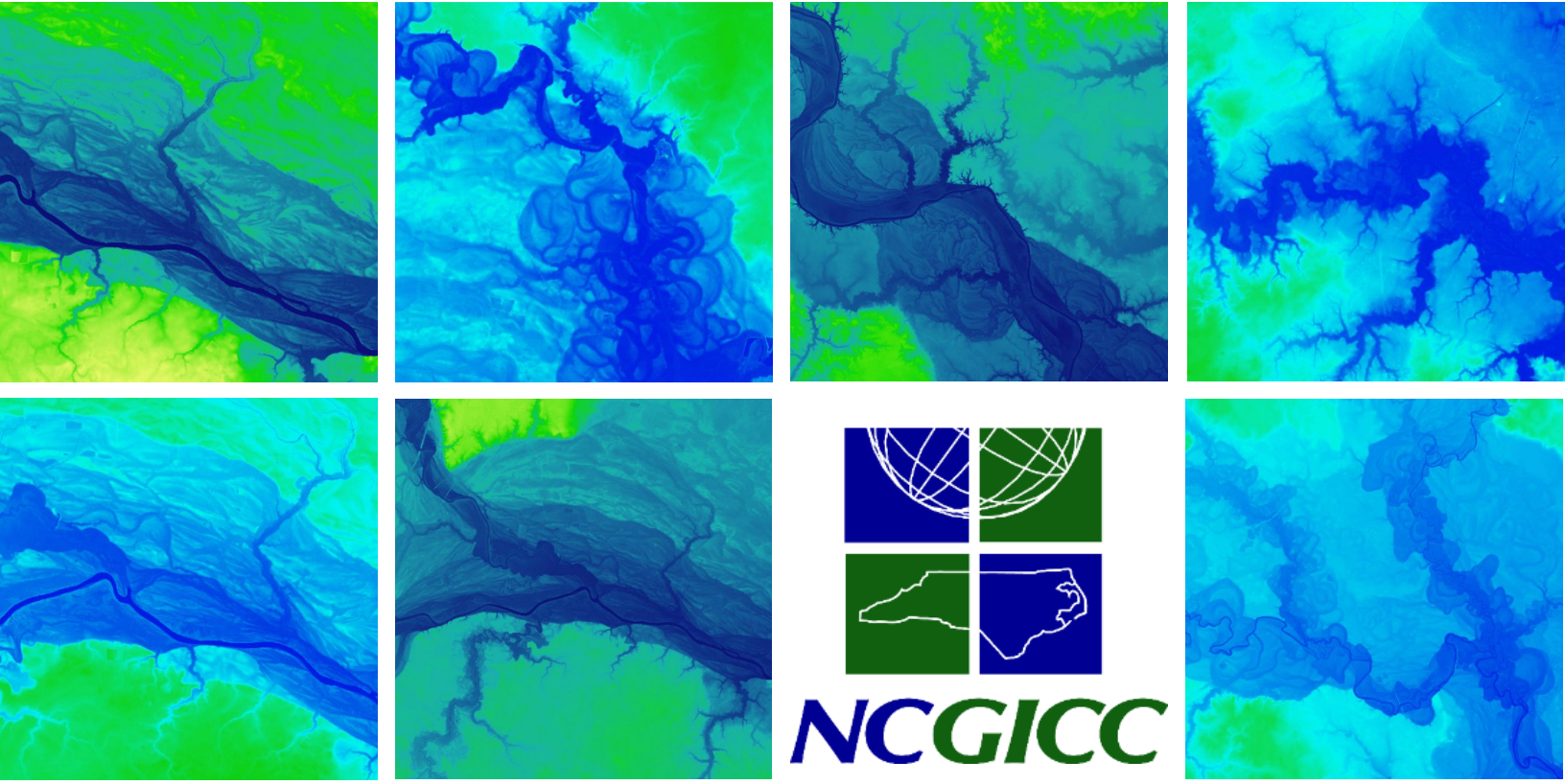

North Carolina Geographic Information Coordinating Council

2026 Annual Report

Fiscal Year 2025 – 2026

Presented to:

Josh Stein, Governor

Joint Legislative Commission on Governmental Operations

Nate Denny, Secretary and State Chief Information Officer

N.C. Department of Information Technology

Presented by:

Natalie Walton-Corbett, Chair

With Consensus from the

N.C. Geographic Information Coordinating Council

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Executive Summary

The N.C. Geographic Information Coordinating Council (GICC) was established by the N.C. General Assembly in August 2001 and is supported by the N.C. Department of Information Technology (NCDIT). The N.C. Center for Geographic Information and Analysis (CGIA), housed within NCDIT's Enterprise Data Office (EDO), staffs the council and its committees.

North Carolina General Statute (N.C.G.S.) §143B-1421(g) requires the council to report annually to the Governor and the Joint Legislative Commission on Governmental Operations. The council submits this report to share its strategic focus on data-driven collaboration, outline priorities and challenges, and update the Governor and the Commission on its Fiscal Year 2025-2026 accomplishments.

Over its twenty-five-year history, the GICC has coordinated groundbreaking geographic information systems (GIS) framework datasets and served as a model for other states' programs. Council coordination for important framework datasets such as orthophotography, seamless parcels, road networks, and addresses form the backbone of spatial analytics that support state, local and private sector initiatives. These mature datasets, supported by the work of the council, provide immense value to public and private programs.

The council coordinates to continuously improve data and services while supporting the residents and governments of North Carolina. Geospatial data is the backbone for broadband expansion, regional planning, resource protection and economic development, and the council continues to coordinate projects that support a healthy North Carolina economy, environment and community. Support for Next Generation 911, adoption of standards for Hydrography and Parcels, increased federal coordination, and promotion of the value of GIS are just a few examples of council coordinated projects that support a resilient North Carolina.

The council's work involves not only data and analytic tools, but also the state's GIS community. It is the dedicated GIS community that volunteers for council working groups and creates successful projects. The GICC's leadership and forward-thinking members support a strong GIS community, and Fiscal Year 2025-2026 continued these successful efforts.

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Introduction

The N.C. Geographic Information Coordinating Council was established by the N.C. General Assembly in August 2001 and is supported by the N.C. Department of Information Technology (NCDIT). The N.C. Center for Geographic Information and Analysis (CGIA), housed within NCDIT's Enterprise Data Office (EDO), staffs the council.

The council is the state's central point for geospatial collaboration and mapping and supports local and state geospatial programs and services. The council serves to improve the quality, access, and cost-effectiveness of geospatial resources for state, federal, local, academic, and private organizations while promoting the value of geographic information.

North Carolina General Statute (N.C.G.S.) §143B-1421(g) requires the council to report annually to the Governor and the Joint Legislative Commission on Governmental Operations. The council submits this report to share its strategic focus on data-driven collaboration, outline priorities and challenges and update the Governor and the Commission on its Fiscal Year 2025-2026 activities.



Figure 1. GICC members during a quarterly committee meeting.

About the Council

The council meets quarterly to consider policies, issues, and initiatives. It is composed of a broad set of stakeholders representing perspectives from local, state, and federal government, higher education, and private business. The council's collaboration promotes better decision-making across all sectors in North Carolina. The council has three user-oriented standing committees: the Local Government Committee (LGC), the State Government GIS Users Committee (SGUC), and the Federal Interagency Committee (FIC). Two technical committees, the GIS Technical Advisory Committee (TAC) and the Statewide Mapping Advisory Committee (SMAC), address policy, guidance, standards, and technical issues in collaboration with the user-oriented committees. Chairs of all five standing committees as well as the council chair and council representative from the Office of State Budget and Management comprise the Management and Operations Committee (M&O), which handles the council's business between quarterly meetings.



Figure 2. GICC Members are appointed by a range of organizations to represent the entire Geospatial community in North Carolina.

Committee members, the state's geospatial community, and the public use the council's website (it.nc.gov/gicc) and NC OneMap (nconemap.gov) to keep current on initiatives, meetings, opportunities, and news about both entities.

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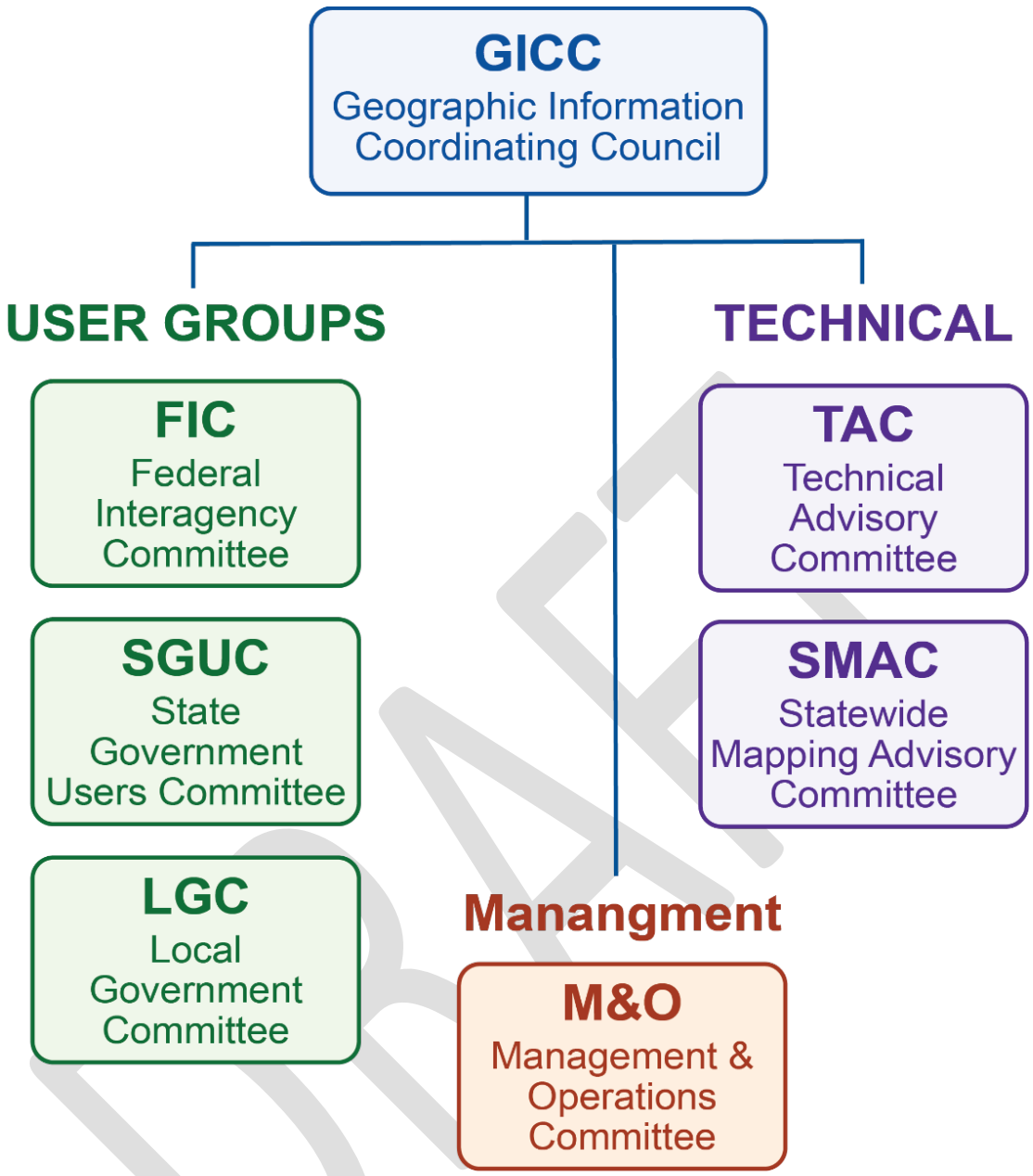

Figure 3. GICC Statutory Committees

What is GIS?

More than just map-making or cartography software, Geographic Information Systems, known as GIS, are information technology systems that connect data to maps, supporting planning and decision-making across a wide range of industries and users. Most people already use GIS-enabled applications in their daily lives every time they route themselves to work, order rideshare, or get packages delivered. GIS is more than a static map; it is a powerful tool that ties together spatial and non-spatial data to support critical decisions.

GIS data forms the foundation for daily decisions in transportation planning, emergency response and public safety, economic development, public health, and more. Addresses and road networks may be the two datasets most often used by the public, yet the

coordination involved in collecting addresses and roads from local governments into a standardized, regularly updated, statewide database is invisible to most people in their daily lives. When these datasets are not complete or accurate, online purchases are delivered to the wrong location, households are missed when expanding access to broadband internet, or emergency responders take longer to find the correct home. Without GIS data, many of the tools we use daily would not exist.

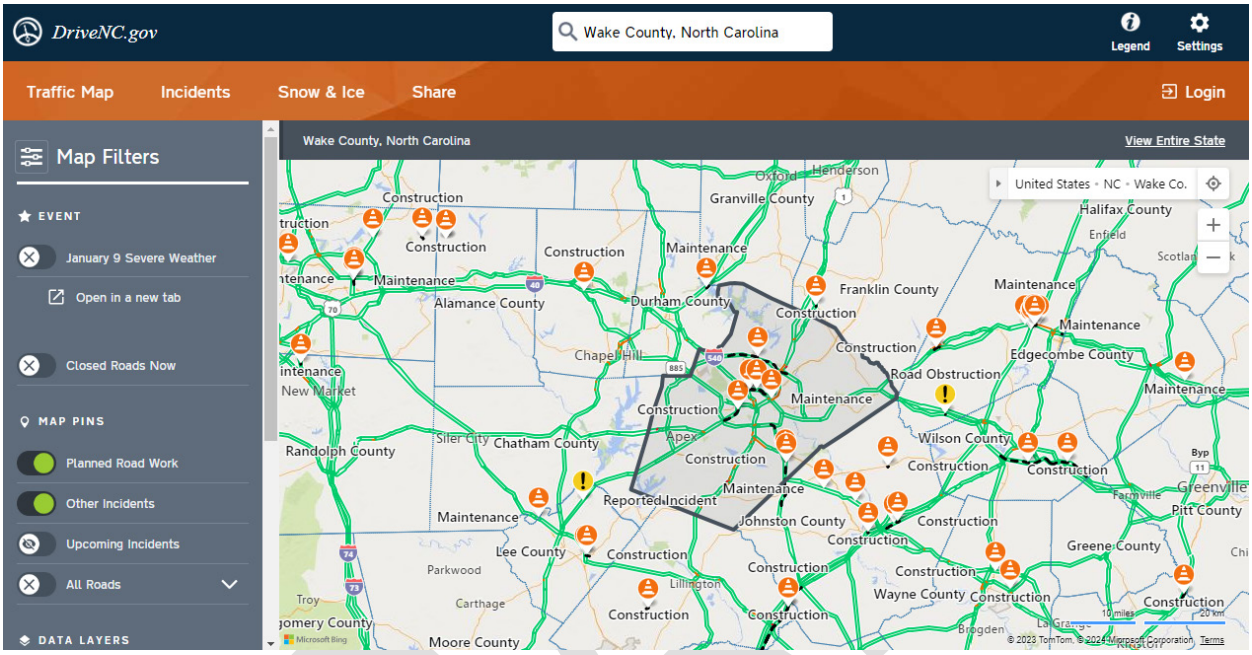

Figure 4. GIS is the foundation for decision-support tools that make government more transparent and efficient. Tools like DriveNC's Traffic Map are critical to communicate road closures and detours during natural disasters like Hurricane Helene.

Because of the critical importance of GIS to government functions as well as the private sector's reliance on accurate, well-maintained data, the council must include a wide range of stakeholders in its committees and working groups to ensure that geographic data produced in North Carolina meets the needs of our citizens. These local, state, federal, private sector, and education stakeholders direct the data-driven collaboration necessary to meet the needs of North Carolinians now and in the future.

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FY25-26 Council Highlights

Introduction



Figure 5. The newly appointed chair of the GICC, Natalie Walton-Corbett

The GICC meets quarterly; for Fiscal Year 2025-2026, the council met August 20, November 5, February 18, and May 20. At the February meeting, the Council Chair, Hope Morgan, announced she was stepping down and thanked the council for the opportunity to serve as chair. Prior to the May meeting, a new chair was appointed by the Governor's Office. The State of North Carolina Geographic Information Officer, Matthew McLamb, announced Natalie Walton-Corbett of the City of Greenville as the new chair of the GICC. Chair Walton-Corbett expressed her gratitude and excitement towards continuing the council's efforts to strengthen and expand North Carolina's GIS efforts.

Agendas for the quarterly meetings include committee and working group updates/recommendations, presentations on state projects that rely upon GIS data for decision support, discussion of issues and needs of the GIS community, and discussions on how to best integrate and promote GIS as a decision support tool. Select highlights from council meetings can be found in this section, while more detailed information about project progress and issues discussed both within the GICC and within its committees will be covered in the accomplishments section of this report.

Geospatial Maturity Assessment

North Carolina scored in the top 25% nationwide, receiving an overall grade of A- in the National States Geographic Information Council's (NSGIC) 2025 Geospatial Maturity Assessment (GMA). NSGIC conducts the GMA every two years to assess national progress on a set of common data themes and other coordination activities such as Next Generation 911. The GMA's common grading system allows a comparison of state progress and encourages states that lack geospatial maturity to learn from mature state GIS programs, such as North Carolina's. State of North Carolina Geographic Information Officer Matthew McLamb presented North Carolina's GMA results to the Council in February of 2026. The 2025 GMA yielded a set of letter grades for nine geospatial layers as well as coordination activities as shown in Figure 6.

The 2025 grading system changed from previous years to include a more rigorous and detailed assessment of each topic. Overall, North Carolina received a grade of A-. At the detailed level, geospatial investments in recent decades for both the state and local government resulted in A grades for addresses, cadastral (i.e., parcels), elevation, and an A+ for NextGen 911. North Carolina's only C grade is related to the orthoimagery leaf-on

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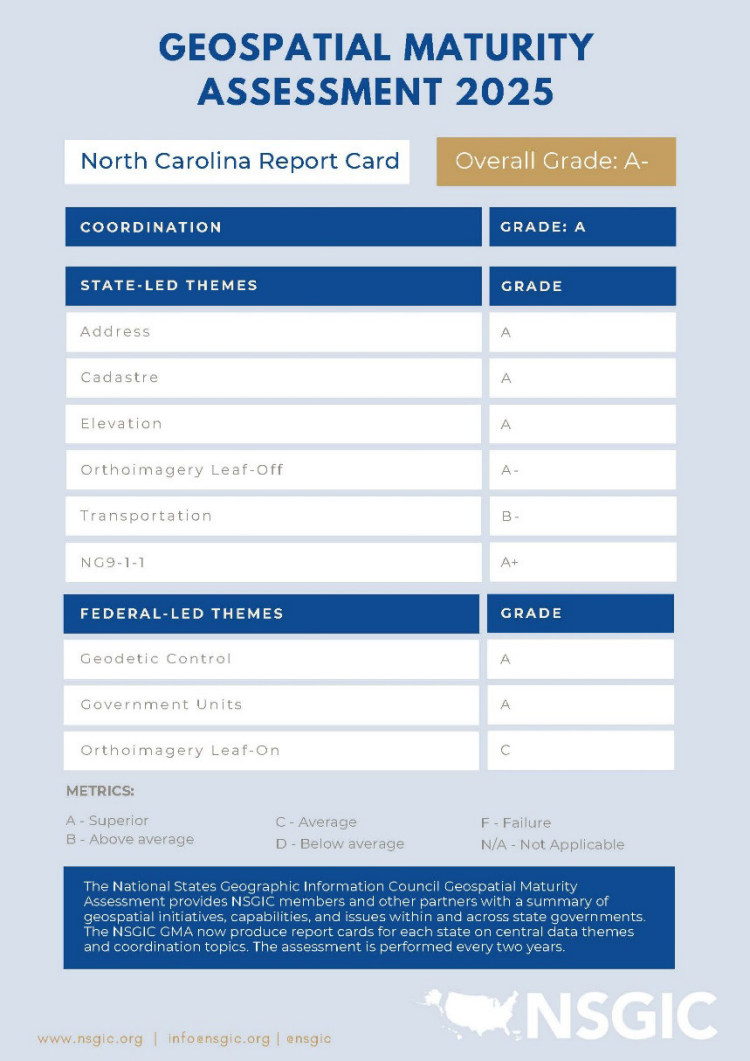

Figure 6. The official 2025 GMA report card for North Carolina

program. The updated grading methodology automatically assigns a C grade for the leaf-on program for states that do not enhance the United States Department of Agriculture (USDA) provided National Agriculture Imagery Program (NAIP) imagery. The state received an A- for our mature leaf-off imagery program. Eastern and western states differ in their need for leaf-on versus leaf-off imagery, with most eastern states investing more heavily in leaf-off imagery. Transportation received a B- due to the North Carolina Department of Transportation (NCDOT) road network dataset excluding address range information. Lastly, North Carolina received an A in both federally led themes of geodetic control and government units. North Carolina continues to be recognized as a national leader overall.

North Carolina's Coordination Program received an A grade due in part to the statutory authorization for the GICC, GICC support staff appropriated positions, the Geographic Information Officer state position, regular GICC meetings and activities, and the NC OneMap data clearinghouse. These activities, state-funded positions, and engaged stakeholders demonstrate a commitment to excellence as well as strong community support for GIS in North Carolina. They also reflect substantial investments made through the legislature over the years. Continued investment in maintenance and updating of these critical datasets will be required long-term to maintain North Carolina's leadership in data quality and availability.

HurriUp Workshop for Local Government

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 its 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, N.C. 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.



Figure 7. Julie Stamper with Pasquotank County presenting at this year's HurriUp meeting

The comprehensive disaster preparedness checklists developed by the Local Government Committee were presented at the meeting. The checklists are organized into four phases: annual tasks, pre-event tasks, during event, and post-event tasks. 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. Th LGC has created a comprehensive disaster preparedness website that serves as a central repository for checklists, emergency response tools and applications, training materials and documentation, contact information and coordination protocols, and links to state and federal resources.

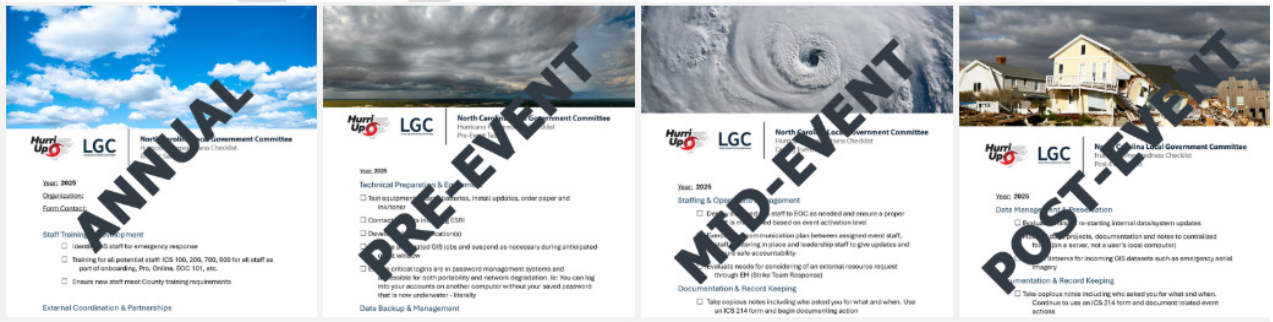

Figure 8. Disaster Checklists available on the NC Disaster Preparedness GIS Resources page

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Use of Artificial Intelligence in GIS

At the GICC meeting in November 2025, I-Sah Hsieh, Deputy Secretary for AI & Policy at NCDIT, presented North Carolina's artificial intelligence strategy, emphasizing that trust is core to successful AI adoption. Governor Stein issued Executive Order #24 establishing the AI Accelerator for rapid prototyping, agency-level AI oversight teams, and a Governor's AI Leadership Council to develop AI strategy in the state. Hsieh introduced a four-step, minimum viable governance framework:

a) define what AI means for your organization;
b) create an inventory of projects to pilot AI use, evaluate using the RIDE method (risk, impact, data sensitivity, ethics);
c) establish evaluation and monitoring plans, and;
d) sharpening your AI skills.

Council members shared current applications of AI, such as Python scripting, dashboard development, and inventory of map services and web maps, as well as machine learning for mapping digital surface models and building footprints, and use of large language models for developing advanced SQL queries. The discussion highlighted the importance of monitoring model performance and being cautious about combining datasets to avoid inadvertently sharing sensitive information. The AI Accelerator received 34 project ideas from nine agencies in the first eight weeks since its inception and plans to publish case studies to facilitate knowledge sharing.

Both the Local Government Committee (LGC) and the State Government User Committee (SGUC) had multiple presentations related to how AI can be used with GIS. Esri demonstrated to the SGUC their AI assistant to find documentation more easily as well as the AI assistant in ArcGIS Online to quickly write Arcade code. The LGC had members share their experiences with using AI for the development of StoryMaps. Other presentations given to the GICC, LGC, and SGUC demonstrated how AI could be used to help transition map applications to be compliant with the new accessibility requirements.

NC GIS Job Classifications Study

The State Government GIS User Committee (SGUC) Executive Committee raised concerns about hiring, retention, and compensation for positions in the state working with GIS for the majority of their job duties. The State of North Carolina does not have a job classification designated for GIS, which requires managers to post open positions under classifications such as Application System Analysts, Environmental Program Consultants, Hydrogeologists, and Engineering Technicians. Discussions within the Executive Committee and surveys given to managers across several agencies showed that this results in managers having a harder time finding employees with the correct set of skills for the positions, and managers cannot provide competitive pay or upward mobility as seen in other surrounding states. This prompted the Executive Committee to engage NCDIT's HR team to discuss options.

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The NCDIT HR Compensation and Classification team, informed by an analysis of other states' practices, drafted classification descriptions for both IT and non-IT GIS positions. The Executive Committee reviewed education/experience requirements and each description in detail to provide suggested alterations. NCDIT's HR staff then brought the proposal to the State of NC Office of Human Resources (OSHR). OSHR informed NCDIT HR of the need to have multiple agencies identify this effort as a priority before it can move forward. By the end of the 2025-2026 fiscal year, the Executive Committee developed plans to document all agencies involved in the effort to date and begin communication efforts to agency leadership to express this priority to their HR teams.

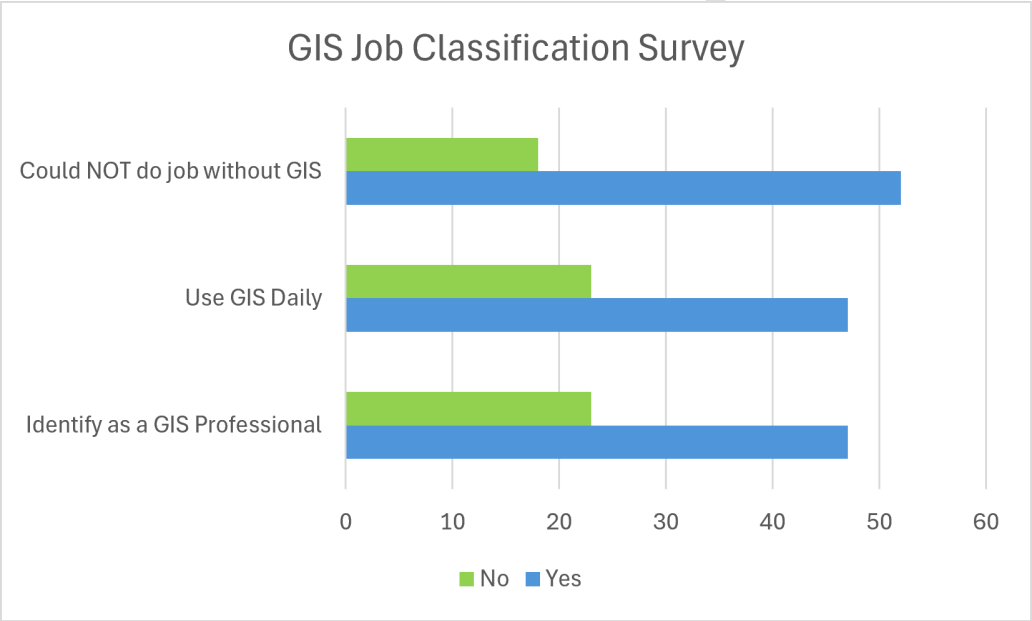

Figure 9. GIS Job Classification Survey results from the June SGUC meeting.

LGC Contact Explorer

The LGC Contact Explorer is a statewide ArcGIS Experience Builder application that provides a centralized, interactive database for viewing, searching, and updating local government GIS contact information. The tool integrates Survey123 for submitting new contacts or updating existing entries, and it draws on NC OneMap datasets for accurate geocoding and location context.

During FY25–26, the contact explorer saw meaningful improvements, including enhanced map-layer selection, a sidebar legend for easier navigation, clearer integration between the map and survey components, and verification that all municipal FIPS codes were properly represented. Demonstrations during committee meetings generated strong interest, helping the explorer quickly become an essential tool for statewide coordination. Applications include supporting disaster preparedness workflows, LGC quarterly meeting outreach, and cross-agency communication between GIS professionals and stakeholders. Continued efforts on the contact explorer directly strengthen intergovernmental efficiency, reduce the burden on local governments, and maintain a modern, authoritative system that supports collaboration across all statewide geospatial initiatives.

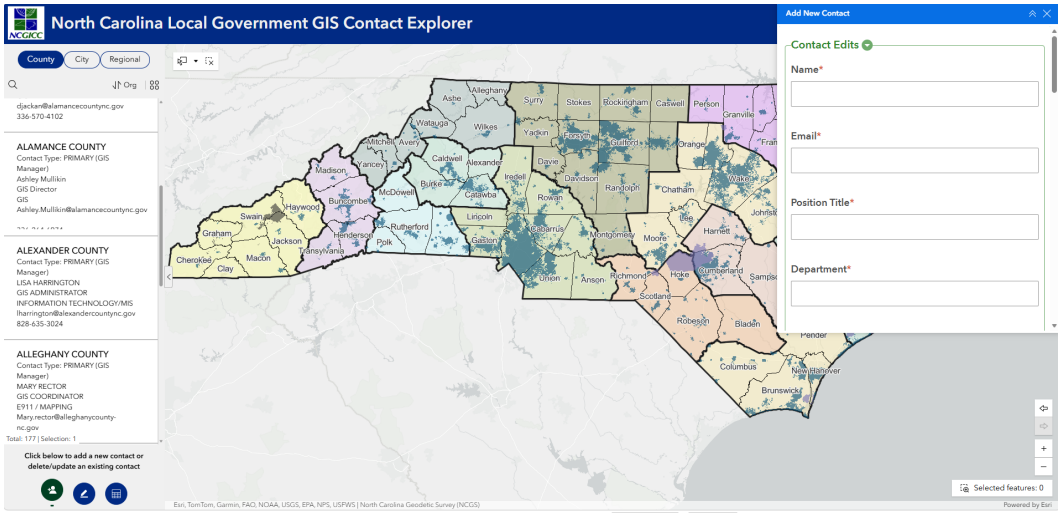

Figure 10. The NC Local Government GIS Contact Explorer main view showing the 'Add New Contact' editor pop-up.

State Government GIS User Committee Strategic Planning

The State Government GIS User Committee collaborated with Indiana's Geographic Information Officer, Megan Compton, on the subject of developing a statewide GIS strategic plan and planning process that enabled it. Compton shared the significant challenges Indiana faced, including fragmented data systems, outdated infrastructure, and minimal staffing. These issues led to the development of a five-year strategic plan. The plan led to several positive changes and additional targeted funding, increasing their return on investment in a short period of time.

With North Carolina facing similar issues, the SGUC Executive Committee began exploring how a strategic plan could be developed to support future GIS efforts across North Carolina. Compton explained how Indiana, through the assistance of a consulting firm, conducted interviews, stakeholder workshops, and a comprehensive analysis of statewide needs. A key outcome of this work was a clear prioritization framework that helped the GIO's Office determine which initiatives were both urgent and foundational, such as stabilizing funding, establishing advisory groups, and modernizing technical infrastructure.

Several transformative results of the plan included a detailed roles-and-responsibilities assessment that justified expanded staffing, and a values-and-benefits study that quantified the economic impact of coordinated statewide GIS services. These efforts contributed directly to Indiana securing $7.1 million in ongoing annual funding to improve geospatial data quality and enterprise services. Compton emphasized that North Carolina is well positioned to undertake a similar statewide planning process.

The SGUC Executive Committee ended the 2025-2026 fiscal year by identifying a North Carolina GIS strategic plan as a priority in upcoming years. Collaborating and learning from other states about both their successes and failures on efforts such as this allows North Carolina to evaluate the more effective and efficient path forward. This would not have been possible without the strong national partnerships CGIA has developed over many years.

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Strategic Direction of the Council for Data Driven Collaboration

Every two years, the council reviews its goals and priorities to plan its strategic direction for the coming two years. Historically, the council has not written a formal three-to-five-year strategic plan but has relied on a biennial planning process to remain nimble and respond more quickly to pressing needs and user priorities. The council's priorities and goals are a mixture of long-term and short-term projects, and this biennial process allows the members to more often assess progress, assign tasks, and define new goals or priorities.

The goals listed below represent the 2025-2027 priorities for the council. Any new goals discussed and planned during this fiscal year will be effective at the beginning of the 2026-2027 fiscal year.

Table 1. NC GICC's 2025-2027 Goals and Priorities.

Goal 1. Improve, expand, and support statewide geospatial data and applications.	
1.1. Promote free and open discovery of and access to geospatial data created and maintained by local governments and support efficient local to state data sharing.	
Need: *Accessible local data is essential for the success of most GICC initiatives.*	There were 157,000 new addresses added/updated within AddressNC which the LGC continued to support the importance of the contributions made by local governments.
	Local Governments signed an agreement with the state to submit a statewide Municipal Boundary Agreement Survey leading to the development of a more complete municipal boundary layer. This layer is available publicly via NC OneMap.
	All counties contributed to AddressNC increasing the accuracy of a highly viewed public data layer.
1.2. Recommend utility infrastructure solutions that maintain data sharing security to aid discovery and ease of access to geospatial data.	
Need: *Emergency response, planning and development communities need a better understanding of security concerns for infrastructure data and better resources for how to request data and securely treat requested data.*	TAC provided recommendations for the redevelopment of a Utility Working Group to be housed under the SMAC. This recommendation was approved and the GICC is currently seeking a Working Group Chair.
	Template disclaimers, non-disclosure agreements and data sharing agreements provided in final report.
1.3. Support priority initiatives that compile and maintain statewide geospatial datasets that benefit the businesses and citizens of North Carolina.	
Need: *Continuously improve existing datasets and compile new datasets as needed by stakeholders with improved transparency and discoverability.*	Municipal boundary data continued to receive updates.
	Advancement of the statewide hydrography dataset, including the establishment of a dedicated internal team to accelerate efforts towards public release.
	2025-2026 LiDAR collection completed. Updates to the spatial data download system to accommodate larger data transfers.
	Building footprints were updated statewide using imagery through 2023.
	A table of framework datasets including links, dataset owners, and a POC is available on NC OneMap.

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1.4. Request all state agencies to make the council's priority geospatial datasets discoverable and accessible through the NC OneMap Geospatial Portal.	
Need: *NC OneMap should serve as a single portal for state GIS data discovery.*	NextGen 911 road centerlines are now available.
	The municipal boundary tool became available on NC OneMap.
	Priority datasets were defined (elevation, hydrography, municipal boundaries, and building footprints) to improve NC OneMap accessibility.

1.5. Promote geospatial metadata for standard documentation.	
Need: *Metadata is essential to allow users to understand appropriate uses for data and should be promoted.*	Hydrography working group developed FAQs documenting dataset standards and workflows
	MBWG conducted workshops and outreach before redesigning the boundary update tool with accessibility improvements.

1.6. Support enterprise applications that derive business value from geospatial data assets and analytics.	
Need: *Promote the understanding of the enterprise capabilities of GIS.*	Official DEM's were added to NC OneMap via web services and downloads.
	DEQ's Stormwater Permitting application relies on automated GIS methods to update dynamic statewide data from certain geographic changes or triggers.
	Enterprise data and visualization layers were made more readily available.

1.7. Promote efficient data sharing of large datasets by recommending technical solutions.	
Need: *Promote access to previously difficult to share datasets.*	NCDOT NCDEQ, and NCDIT collaborated on the development of a MOU and a data governance guide for a statewide hydrology layer.
	The Technical Advisory Committee worked towards completing a document outlining recommendations for sharing and securing big data.

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Goal 2. Collaborate and conduct outreach for more integration of geospatial data in information technology for expanded benefits in the geospatial community in North Carolina.	
2.1. Identify opportunities to collaborate on GIS solutions in all state departments including divisions not directly represented on the council to add value to state business processes.	
Need: *Collaborate with state agencies to add value and prevent silos.*	SMAC identified statewide building footprints as a high-priority derived product from orthoimagery and supported completion of the statewide building footprint refresh.
	SMAC advanced collaboration among state agencies by supporting the development of a statewide hydrography program led jointly by NCDOT, NCDEQ, NCDIT, and CGIA.
	Held monthly meetings to coordinate with NOAA's National Geodetic Survey and local, state, and private-sector partners to prepare North Carolina's orthoimagery, lidar, and derived data for the change to the 2022 National Spatial Reference System through planned case studies, outreach, and documentation.
2.2. Identify opportunities to collaborate on geospatial data and technical solutions on a regional basis, engaging councils of government, educational institutions, metropolitan planning organizations, and rural planning organizations.	
Need: *Eliminate silos and increase resources by working on a regional basis.*	Jeff Essic presented to the LGC on the ability of storing GIS data at NCSU library and benefits to housing backups at the NCSU library.
	LGC collaborated with DOT on how road closures are tracked and published
2.3. Reach out to jurisdictions with the least resources to find ways to add value with geospatial data and applications.	
Need: *Provide education to the many small jurisdictions that lack GIS capability or expertise.*	The GICC and LGC support small jurisdictions through targeted outreach and statewide resource hubs designed to improve GIS participation and accessibility.
	Hosted workshops, surveys, and open meetings that identify GIS needs and foster support.
2.4. Increase awareness and adoption of council initiatives and priorities through outreach and education.	
Need: *Increase participation in working groups and increase awareness of existing GIS resources to avoid duplication of effort.*	Repeat presentations across multiple committees to ensure communal awareness of current projects and resources.
	Changes in advertisement strategies for committee meetings to encourage more attendance

Accomplishments 2025-2026

Sharing Information and Knowledge

SGUC Training

The State Government GIS Users Committee (SGUC) coordinates Esri GIS training classes as part of the benefits available through the Esri enterprise licensing agreement. This training program ensures state agency GIS professionals have access to current skills and

professional development, directly supporting the quality of GIS services provided across state agencies. During Fiscal Year 2025–2026, the SGUC arranged multiple instructor-led training sessions. By the end of the fiscal year, 77 employees participated in these training courses.



Figure 11. Statistics of state employees who participated in the instructor-led GIS training.

GICC Accessibility Work Group

The N.C. Geographic Information Coordinating Council (GICC) established the Accessibility Working Group (AWG) in January 2026 in response to the U.S. Department of Justice (DOJ) issuing a web accessibility rule in 2024. This rule mandates that government digital services including GIS web content must be usable and accessible for all users, especially people with disabilities. Because digital accessibility in GIS and mapping poses unique challenges due to the inherently visual nature of geospatial data, a primary goal of AWG was to help state and local government geospatial teams navigate these requirements.

In four months, the group successfully delivered on all goals (Table 2) including the most notable of developing and publishing a sophisticated open public facing smart HUB site prior to the federal April deadline as well as reaching all known primary county and local government GIS Managers for a coordinated effort. The group was co-chaired by Faye Koenigsmark (NCDHHS) and Nancy Ross (Mecklenburg County) and supported by staff from CGIA.

Table 2. Goals of the Accessibility Working Group

Topic	Goal
Identify Common Barriers	Survey GIS professionals to pinpoint obstacles, such as limited staff capacity, legacy systems, and lack of resources.
Share Examples and Templates	Provide accessible GIS application templates
Inventory Tools for Accessibility Checks	Compile and rate tools for accessibility testing
Develop a Template Checklist	Create checklists for tracking accessibility compliance
Engage with Partners	Connect with DOJ and regional ADA centers to clarify compliance expectations and share resources, engage Esri's senior Accessibility Management Team, and assemble a group of diverse representatives around the State.
Create a Centralized Hub	Launch a public-facing hub on NC OneMap to share resources, information, and deliverables.

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Esri provided an accessibility workshop for both the Local Government Committee (LGC) and the State Government GIS Users Committee (SGUC) to assist with identifying available resources and how to use the tools. Presentations were also given at both committees from members sharing lessons learned, tips and tricks, as well as who AI could be used to alter map applications to meet accessibility requirements.

The SGUC also attended a detailed webinar from the National States Geographic Information Council which has one of the most comprehensive resource libraries on the topic.

Datum Change

The Council held a panel discussion on the upcoming datum change during the August 2025 GICC meeting, featuring Charles Geoghegan from NOAA's National Geodetic Survey (NGS), Gary Thompson from N.C. Emergency Management (NCEM), and Melita Kennedy from Esri. The switch to new national datums (NAD 2022 and NAVD 2022) is needed to provide more accurate and precise coordinates using modern technology and improved measurement methods. North Carolina has legislative framework in place to automatically adopt the new datums when federally approved in 2026, with state LIDAR and imagery projects transitioning to the new system in 2027 and 2028. The panel emphasized supporting local governments with the transition, and discussed various resources to help them manage the switch.

A Datum Working Group was formed through the Statewide Mapping Advisory Committee to meet with the LGC and the SGUC to discuss what needs they may have to assist them in preparation for the transition. Based on discussions during these meetings, the working group developed checklists, surveyed additional GIS professionals, and created draft guidance documents.

Presentations and Outreach

An important goal for the council is to educate the geospatial community and public about council initiatives and geospatial resources. As staff to the council, CGIA team members coordinate with working groups and committee chairs to present information and updates throughout the year. The following is a list of venues and topics presented this fiscal year outside of regular council and committee meetings.

Table 3. Outreach presentations for fiscal year 2025-2026

Venue	Topic
Throughout NC	Land Records Workshop
GeoGov Summit (September 2025)	NSDI, integrating emerging technologies, case studies, and emergency disaster preparedness
ESRI UC	DEQ Stormwater Project
2025 NC AUG Conference	North Carolina: Decisions, Data, Standards, and Coordination

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State and National Participation

GICC members and staff participated in numerous state, national, and professional organization events during fiscal year 2025–2026, promoting current work from North Carolina's geospatial programs, collaborating on possible solutions to challenging issues, and building relationships that support the council's mission. Members of the council also hold positions on other national organizational boards such as the United States Geological Survey (USGS) 3D Elevation Program (3DEP) Subcommittee, NASA's Advisory Board, the American Society for Photogrammetry and Remote Sensing (ASPRS), and the Management Association for Private Photogrammetric Surveyors (MAPPS), providing increased awareness nationally of North Carolina's work and allowing opportunities to better connect North Carolina's datasets to larger nationwide data efforts.

Collaboration for Data Governance and Consistency: Framework Datasets

Hydrography Working Group

North Carolina's hydrography data is a critical framework dataset supporting water quality management, flood risk assessment, transportation planning, and environmental regulation. The Hydrography Working Group (HWG) updated hydrography recommendations to align with the U.S. Geological Survey's 3D Hydrography Program (3DHP), which derives hydrography from elevation data, greatly increasing accuracy.

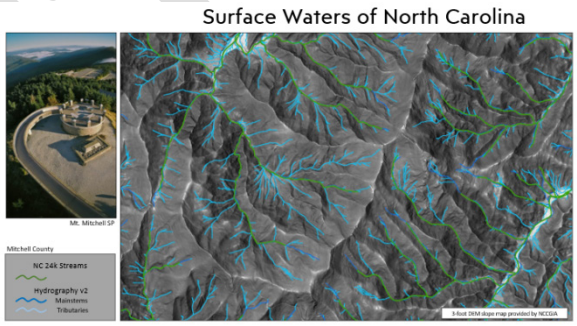

Figure 12. The NC Hydrography project uses elevation data to increase accuracy of mainstems as well as adding several tributaries not included in the NC 24K Streams dataset.

During Fiscal Year 2025–2026, the HWG finalized a Memorandum of Agreement between NCDOT, NCDEQ, and NCDIT to formalize interagency roles in developing and maintaining the statewide hydrography framework. CGIA and NCDOT are now supporting NCDEQ in preparing NC Hydro for distribution through an enterprise server, while CGIA is beginning work on establishing an NC OneMap presence to provide public access once the dataset is ready.

Seamless Parcels Working Group

The Seamless Parcels dataset is consistently the most requested layer on NC OneMap and provides foundational data for broadband planning, tax assessment, emergency response, flood analysis, and dozens of other day-to-day applications. North Carolina's statewide seamless parcels program is recognized nationally, and council members provide guidance to other states through NSGIC on developing comparable programs.

The WGSP continued work in fiscal year 2025–2026 to improve data consistency and quality. Participation remained strong, with between 80% to 90% of counties updating quarterly through the fiscal year.

The Work Group for Seamless Parcels, along with the NC Data Sharing Committee, worked with North Carolina tax administrators and the North Carolina CAMA (Computer-Assisted

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Mass Appraisal) vendors to obtain parcel, building, and sales attribution with the goal of integrating this tax and CAMA data with the parcel and building geospatial layers available on NC OneMap. Directly populating geospatial layers, such as the NC Seamless parcel layer, with data from the tax administrators and CAMA vendors will create more complete and consistent field attribution across all 100 counties. Using CAMA data provided by Bi-Tek and Cox & Company, the WGSP worked a creating framework for integrating the CAMA data with the parcel and buildings footprints layers.

In addition, the Carbon Cloud Parcel Transformer, originally created in 2014, was officially retired on June 1, 2026, and replaced with an in-house parcel transformer managed by CGIA. This new transformer can accept a wide variety of upload formats and has the capacity to process both tabular CAMA and tax data as well as geospatial data from the counties.

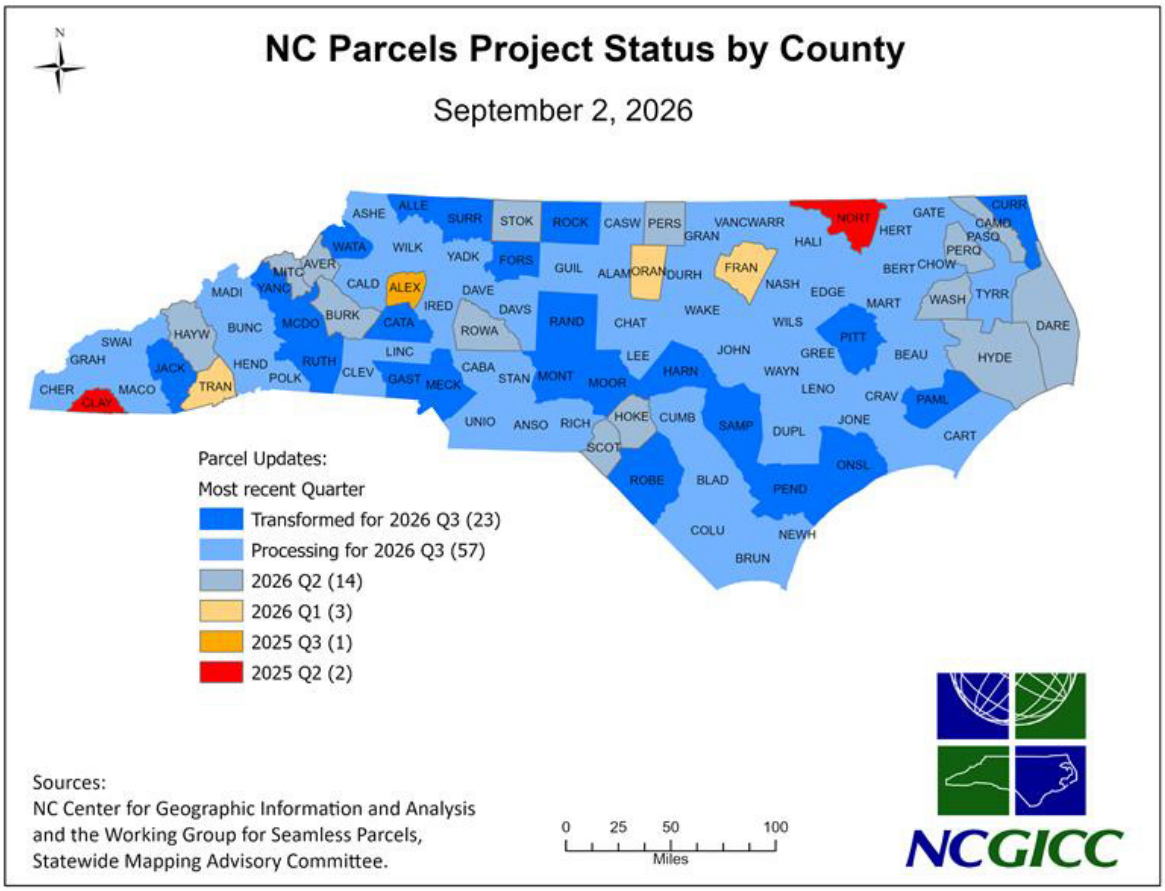

Figure 13. Status of NC Parcels Transformed through the new in-house process.

Orthoimagery Program

The Statewide Orthoimagery Program, funded by the N.C. 911 Board, delivers a consistent and current visual reference for emergency communications and serves as a foundational layer for most online mapping in the state. The program updates a quarter of the state's counties each year on a rotating four-year cycle. Imagery is available to local, state, federal,

and regional government agencies, the private sector, academic communities, and private citizens as map services and downloadable files from NC OneMap.

The 2025 Eastern Piedmont Orthoimagery Project, covering 26 counties, was completed on schedule with deliveries to county public safety answering points (PSAPs) in December 2025. This project encompassed over 15,000 square miles, including Raleigh-Durham, Fort Bragg, Camp Mackall, and Seymour Johnson Air Force Base. The 2026 Northern Piedmont and Mountains project, also encompassing 26 counties and over 12,000 square miles, was successfully flown between February 28 and March 25, 2026. Despite a challenging winter season and nearly four weeks of weather-related delays due to heavy snowfall throughout the project area, imagery acquisition was completed on time.

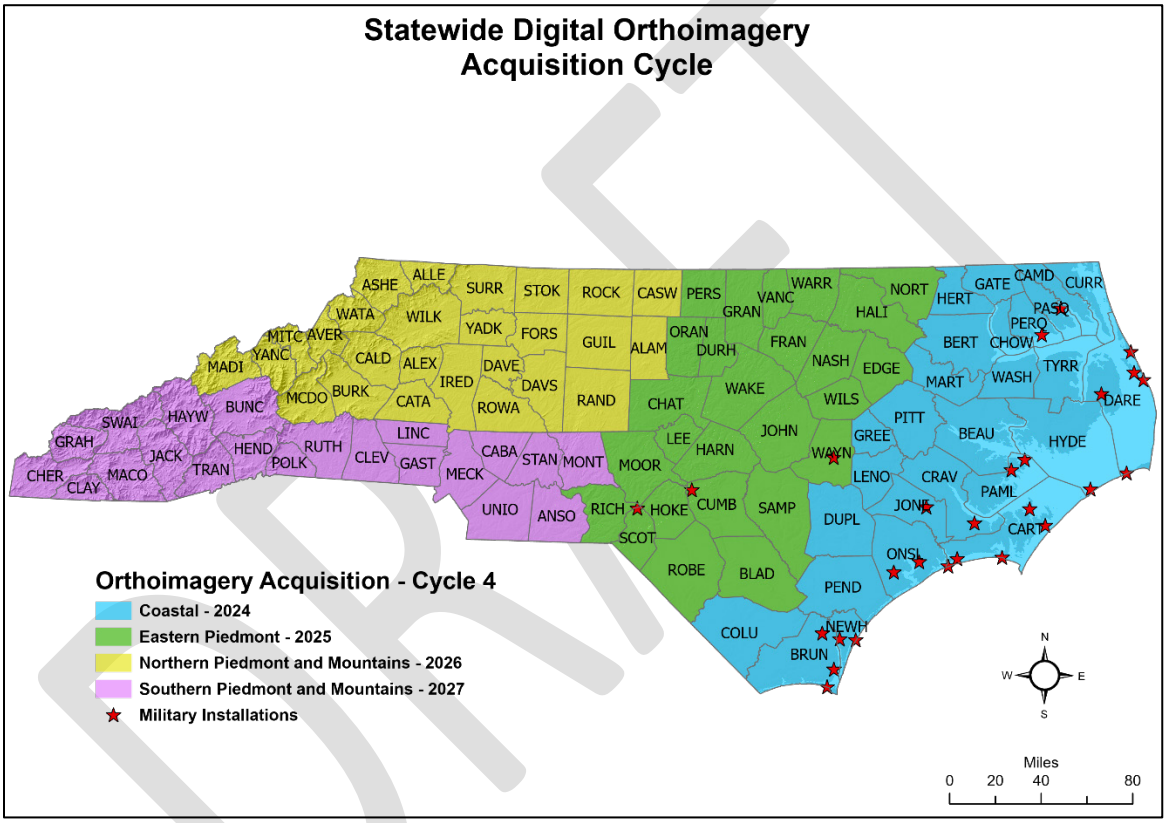

Figure 14. Current 4-year Orthoimagery Cycle

The Working Group for Orthoimagery and Elevation advanced several key initiatives during the reporting period. The group developed a Lidar Business Plan that defines the technical framework needed for more frequent and consistent elevation data collection across the state. In addition, the group began preparing for implementation of the 2022 Reference Frame and evaluating its impacts on future imagery and elevation projects.

The Orthoimagery Needs Assessment was recently developed to gather input from North Carolina's geospatial stakeholders to evaluate how well the statewide imagery program is meeting current needs and to identify opportunities for improvement. The feedback collected will guide planning for future imagery cycles, informing decisions on update frequency, product offerings, delivery methods, and funding priorities.

AddressNC

Address data is one of the most frequently used GIS framework datasets identified by the GICC. It forms the basis for emergency response, navigation, broadband planning, Census enumeration, and hundreds of other public and private sector applications. The AddressNC program is an authoritative statewide database of point locations passed through from Next Generation 911, ensuring the data reflects the most current addressing maintained by local governments.

Figure 14 demonstrates growth in fiscal year 2025–2026, expanding by nearly 3% or 157,000 new locations, thus confirming a continual value-added contribution by all counties. AddressNC data continued to be incorporated into the USDOT National Address Database (NAD) and as a continual supplement to Esri's World Geocoding Service every quarter.

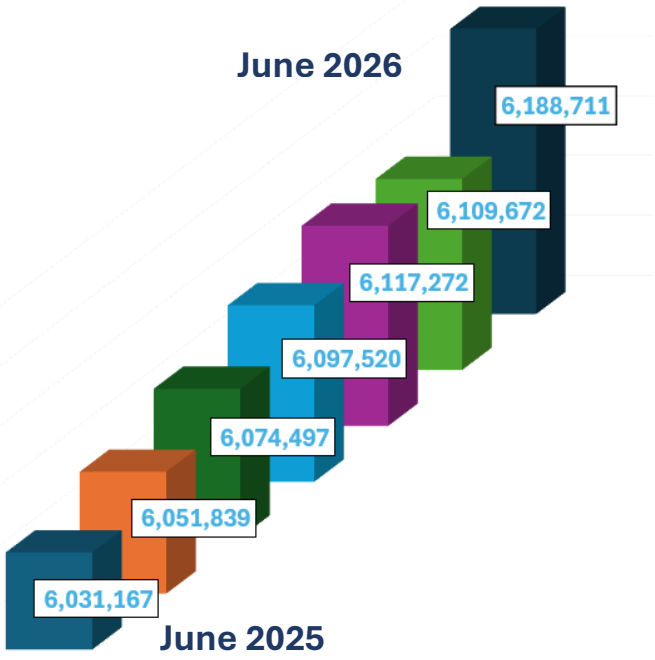

Figure 15. Fiscal Year 25-26 Address Location Counts.

Year after year, AddressNC demonstrates value-added use-cases to State agencies or community needs as was demonstrated by the contribution of accurate data to aid in Hurricane Helene or to quantify missing locations on maps used by the FCC and the NC Broadband and Digital Opportunity for infrastructure grants. This year the state, the Eastern Band of Cherokee Indians, and three North Carolina counties partnered with the U.S. Census as part of a testing program for the upcoming 2030 Local Update of Census Addresses (LUCA). LUCA allows tribal, state, and local governments to review and update the Census Address master set to help ensure a complete and accurate count. AddressNC data was used to perform a quantified assessment to determine a western target county to partner with. Criteria were based on recurring participation, continual growth, and minimal error, and the results yielded high confidence and reliability backed by years of statistical accumulated data. In total, the distribution of testing was well represented across the state.

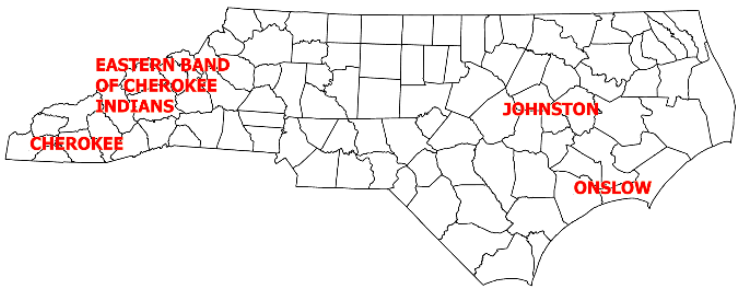

Figure 16. LUCA Participating Test Partners.

Building Footprints

Building footprint data, or the mapped outlines of all structures, is an increasingly critical dataset for broadband planning, emergency response, tax assessment, and post-disaster damage analysis. The program works with N.C. Emergency Management to coordinate building footprint updates, with staff and contractors supporting mapping across the state.



Figure 17. Due to the rate of development in North Carolina, building footprint data requires frequent updating.

During fiscal year 2025–2026, the statewide building footprints program made substantial progress, advancing toward complete statewide coverage and improving the quality and utility of the dataset. By June 2026, building footprints were fully updated through 2023 imagery, with integration of 2024 imagery already underway, and teams continued refining detection accuracy by combining LiDAR and imagery-derived methods. The program accelerated processing by leveraging contractors, interns, new analytical techniques, and raster-based workflows, enabling rapid completion of remaining counties and supporting high-priority applications such as 2D floodplain studies in western North Carolina.

Building footprints were also incorporated into updated Spatial Data Download tools, with planned coastal updates using new imagery and targeted change detection to identify structures affected by Hurricane Helene and coastal erosion. The importance of this dataset remained clear statewide, with survey results indicating that building footprints are the number-one product derived from orthoimagery, underscoring the value of ongoing modernization and investment.

Municipal Boundaries

The Municipal Boundary Working Group (MBWG) continued work to increase adoption of the statewide municipal boundary submission tool, which allows local governments to submit annexations through a single portal rather than independently reporting to multiple state and federal agencies. This tool ensures all state agencies and the U.S. Census Bureau receive consistent boundary updates.

During fiscal year 2025–2026, the Municipal Boundary Working Group (MBWG) delivered significant value to the state by strengthening the accuracy, consistency, and efficiency of municipal boundary management. This work directly prevents duplication of effort across agencies and reduces long-term operational costs. The group expanded adoption of the statewide municipal boundary submission tool, enabling jurisdictions to submit annexations once rather than reporting separately to multiple state and federal entities, ensuring aligned and authoritative data for all users. Targeted county-level outreach helped jurisdictions meet the March 1, 2026, Boundary Annexation Submittal (BAS) deadline and improved participation among the primary reporters of boundary data, supported through

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training opportunities like municipal clerk education sessions. The MBWG also advanced statewide data reliability by auditing boundary information, enhancing the integrated boundary layer, and identifying structural needs such as MOUs to ensure sustainable maintenance and continuity of the dataset. Additionally, the group produced reference materials, communication plans, and guidance designed to reduce reporting burdens on local governments and streamline Census-related boundary workflows across agencies.

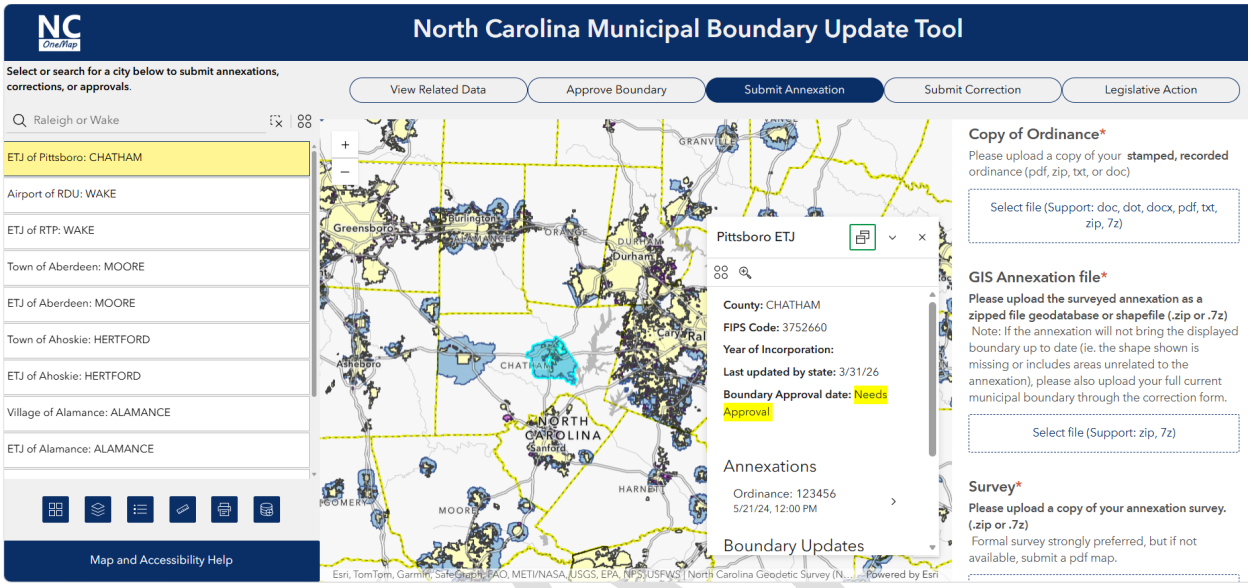

Figure 18. NC Municipal Boundary Update Tool with the annexation submission survey pop-up visible.

Collaboration for Public Access to Geographic Information

GIS Day Collaboration

GIS Day is an annual event celebrating GIS based technologies that was first introduced in 1999. Since then, GIS Day has grown into a worldwide day to recognize and share everything GIS with dozens of events hosted in North Carolina. During the February 2026 GICC meeting, members shared their experiences of hosting local GIS Day events. The City of Wilson and Wilson County partnered to hold a multi-day event including a GIS user contest, a children's event at the museum, and community panel event. The Person County event was more focused on training sessions and tool presentations. The City of Greensboro held their most successful and attended event to date. By combining resources from surrounding cities, counties, and colleges, the event was well advertised to a diverse range of age and interest groups and planners were able to begin planning several months in advance. Duke Energy held a virtual event drawing over 600 attendees with a main focus on the use of AI in GIS.



Figure 19. CGIA's booth during the Raleigh GIS Day event.

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Each of the presenters shared lessons learned including more robust advertising, targeting more specific audiences, and exploring ways to bring in early education attendees. Members were eager to share tips on what went well and things they will do differently in future events, there was also discussion surrounding collaboration during the planning phase in future years.

NC Broadband Expansion

North Carolina's broadband expansion continued to be a priority and shows the return on investment in the state's framework geospatial data. Because funding must be precisely targeted to unserved and underserved locations, the program relies on the state's mature framework layers, such as imagery, parcels, addresses, and building footprints, to translate location data between the FCC's proprietary Broadband Serviceable Location fabric and authoritative local sources.

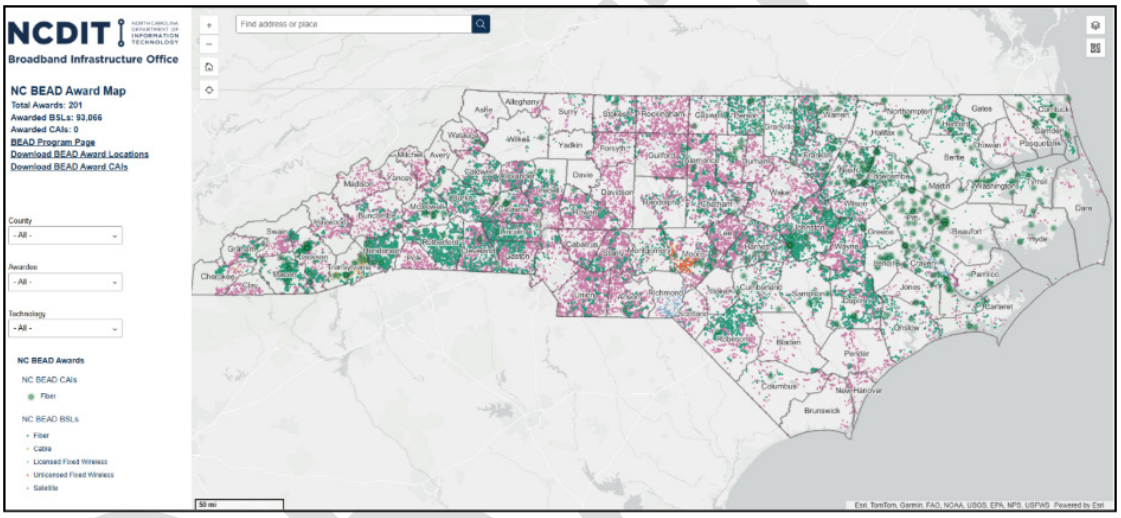

Figure 20. Statewide BEAD Awards mapped across North Carolina.

The North Carolina Broadband Equity, Access, and Deployment (BEAD) program Final Proposal and awards were announced at the end of 2025. As shown in the BEAD Awards Dashboard *(Figure 18)*, this spatial data-driven process resulted in 201 awards covering 93,066 locations and more than $300 million in investment to expand high-speed internet access for residents and businesses. The Stop Gap Solutions Program also leveraged geospatial data to determine eligibility and award over $25 million to serve more than 5,000 locations in early 2026. These outcomes would not be possible without the commitment to quality GIS data programs in the state.

NC OneMap

NC OneMap serves as North Carolina's authoritative geospatial data clearinghouse, recognized nationally as an example of governmental excellence. As the state's primary portal for discovering and accessing current, reliable, and well-documented GIS resources, NC OneMap supports users across all sectors including local, state, and federal government, private industry, academia, and the public.

With more than 1 million views per month on average, N.C. OneMap continues to demonstrate high value and sustained demand for statewide geospatial information. The platform provides access to a curated collection of foundational datasets, including imagery, parcels, addresses, hydrography, building footprints, elevation data, and other priority layers identified by the North Carolina Geographic Information Coordinating Council (GICC). These resources underpin a wide range of mission-critical programs such as broadband expansion, NextGen 911, environmental analysis, planning, and emergency response.

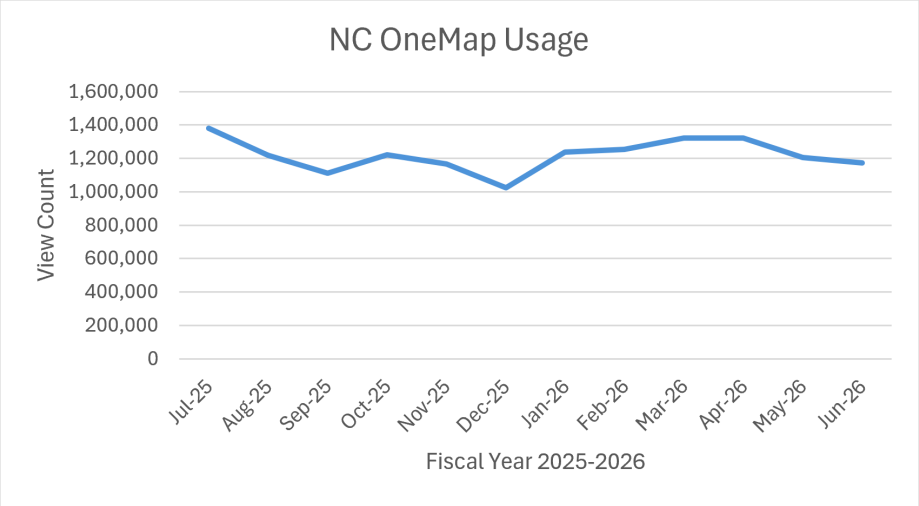

Figure 21. Usage of NC OneMap from July 2025 - June 2026.

Intergovernmental Collaboration for Efficiencies

BAS Submission

The first statewide Boundary and Annexation Survey (BAS) submission process was completed in March of 2026. The statewide submission is a new consolidated workflow developed between CGIA and the Secretary of State's office to improve the accuracy and completeness of boundary change submissions to the U.S. Census Bureau. Over 650 annexations were added to the 2025 dataset, 157 of which were annexations missing from previous years. A mapping application website launched in January 2026 that allows counties and cities to see which annexations are missing, submit PDF ordinances and corresponding GIS files, and review and approve boundary updates before they are submitted to the U.S. Census Bureau.

Federal Interagency and Local Government Committees Joint Meeting

The Federal Interagency Committee (FIC) held a joint meeting with the Local Government Committee (LGC) to share information about federal geospatial assets available to Local Government users. Representatives from US Census Bureau, USGS, FEMA, NOAA, Geodetic Survey, NASA, and EPA presented on various GIS efforts important to local governments in North Carolina. This collaboration resulted in local governments volunteering to participate in a national hurricane evacuation study, shared insight on how to improve a national road closure layer using local and state data, insightful feedback on disaster preparedness checklists, increased participation in the seamless parcels beta testing, and better awareness of a boundary and annexation update tool and the need to participate with AddressNC.

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This meeting marked the second annual joint meeting hosted by the FIC. Plans are underway for the third annual joint meeting to include all three GICC User Committees (LGC, SGUC, and FIC). The high attendance and volume of positive feedback are an indication of importance of the GICC goals to expand and evolve collaborative efforts to meet changing needs across the North Carolina GIS community.

Future Priorities

The council's priorities for 2025–2027 are centered on data-driven collaboration, improved disaster readiness, and continuous improvement of access to data products that save time, money, and lives. The goals formally adopted at the May 2025 council meeting provide the framework for this work. Priorities are organized around two overarching goals: 1) improving and expanding statewide geospatial data and applications, and 2) collaborating for broader integration of geospatial data across North Carolina. Priority areas for the upcoming 2026-2027 fiscal year are:

1. Big Data/Machine Learning/Artificial Intelligence
2. State Agency Return on Investment Documentation
3. North Carolina GIS Job Classifications for State Agencies
4. Creation of a Utility Working Group

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Appendix

Members of GICC

- Steve Averett - City of Greensboro
- Paul Badr - GPI, Geospatial Division
- David Baker – N.C. Association of County Commissioners
- Amy Barron - Duke Energy
- Jeremy Baynes – U.S. EPA
- Raquel Bensadoun – N.C. Department of Transportation / Information Technology
- Lee Clyburn - CBRE
- Michael Connolly – N.C. Department of Revenue
- John Cox – N.C. Department of Administration
- Jason Dowdy - CACI, Inc.
- Stan Duncan - Retired, State and Local Government
- Joey Ennis – N.C. Department of Natural and Cultural Resources
- Dianne Enright – N.C. Department of Health & Human Services
- Dean Grantham – N.C. Department of Environmental Quality
- Joanne Halls - UNC Wilmington
- Pokey Harris – N.C. 911 Board
- Jason Hedley - Colliers Engineering and Design
- Matthew Helms - Charlotte Water
- Jeremiah Jackson – N.C. Department of Public Instruction
- Elaine F. Marshall – N.C. Office of Secretary of State
- Marty McCracken – N.C. Department of Justice
- Hope Morgan - AECOM
- Chris Nida – N.C. League of Municipalities
- John Quinterno – N.C. Office of State Budget & Management
- Allan Sandoval – N.C. Department of Commerce
- Allen Serkin - Cape Fear Council of Governments
- Ed Spitler – N.C. Community College System
- Gary Thompson -N.C. Department of Public Safety
- Linda Thurman - UNC Charlotte
- Sallie Vaughn - Person County
- Christian Vose – N.C. Department of Agriculture and Consumer Services
- Natalie Walton-Corbett - City of Greenville (GICC Chair)
- Eric Wilson – N.C. Department of Transportation
- Martha Wewer – N.C. Department of Information Technology

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Acronyms

- ASPRS - American Society for Photogrammetry and Remote Sensing
- BAS - Boundary Annexation Survey
- CAMA - Computer-Assisted Mass Appraisal
- C-CAP - Coastal Change Analysis Program
- CGIA - Center for Geographic Information and Analysis
- CORS - Continuously Operating Reference Stations
- NDHHS - Department of Health and Human Services
- EDO - Enterprise Data Office
- EPA - Environmental Protection Agency
- FCC - Federal Communications Commission
- FEMA - Federal Emergency Management Agency
- FIC - Federal Interagency Committee
- FIMAN - Flood Inundation Mapping and Alert Network
- FRIS - Flood Risk Information System
- GICC - Geographic Information Coordinating Council
- GIO - Geographic Information Officer
- GIS - Geographic Information Systems
- HWG - Hydrography Working Group
- LGC - Local Government Committee
- MAPPS - Management Association for Private Photogrammetric Surveyors
- MBWG - Municipal Boundary Working Group
- M&O - Management and Operations Committee
- MOA - Memorandum of Agreement
- NAD - National Address Database
- NAD 83 - North American Datum of 1983
- NASA - National Aeronautics and Space Administration
- NAVD 88 - North American Vertical Datum of 1988
- NCAUG - North Carolina Arc Users Group
- N.C.G.S. - North Carolina General Statute
- NCDEQ - North Carolina Department of Environmental Quality
- NCDIT - North Carolina Department of Information Technology
- NCDOT - North Carolina Department of Transportation
- NCEM - North Carolina Emergency Management
- NCGS - North Carolina Geodetic Survey
- NENA - National Emergency Number Association
- NG911 - Next Generation 911
- NGS - National Geodetic Survey
- NLCD - National Landcover Dataset
- NOAA - National Oceanic and Atmospheric Administration

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- NSDI - National Spatial Data Infrastructure
- NSGIC - National States Geographic Information Council
- OGC - Open Geospatial Consortium
- PSAP - Public Safety Answering Point
- QL1 - Quality Level 1 (lidar standard: 8 points per square meter)
- SGUC - State Government GIS Users Committee
- SMAC - Statewide Mapping Advisory Committee
- SPWG - Seamless Parcels Working Group
- TAC - GIS Technical Advisory Committee
- USGS - United States Geological Survey
- WCAG - Web Content Accessibility Guidelines
- WGEER - Working Group for Enhanced Emergency Response
- 3DHP - 3D Hydrography Program (USGS)
- 3DEP - 3D Elevation Program (USGS)

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