

MINUTES

Statewide Mapping Advisory Committee Meeting

Date: Thursday, June 11, 2026, 1:30 – 3:30 PM

Location: DEQ GS Training Room 1210 and Virtual

Welcome/Introductions

See attendance sheet at the end of these minutes.

The minutes by the March 13, 2026 minutes were approved.

Working Groups and Related Geospatial Data

Working Group for Orthoimagery and Elevation

Orthoimagery – Ben Shelton

Ben Shelton provided extensive updates on the 2026 Northern Piedmont & Mountains orthoimagery project (Figure 1), describing it as one of the most challenging acquisition

Northern Piedmont and Mountains 2026 Acquisition Results

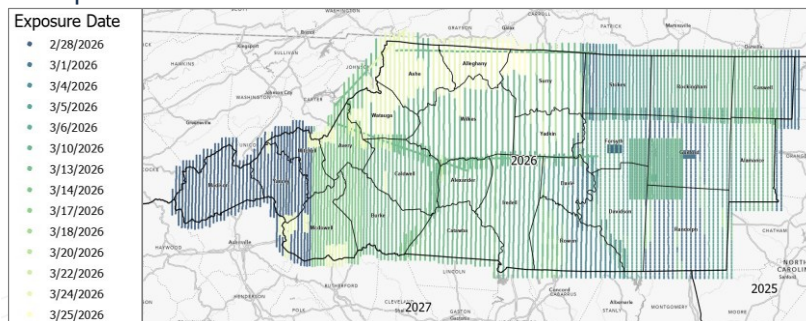


Figure 1 - 2026 acquisition dates

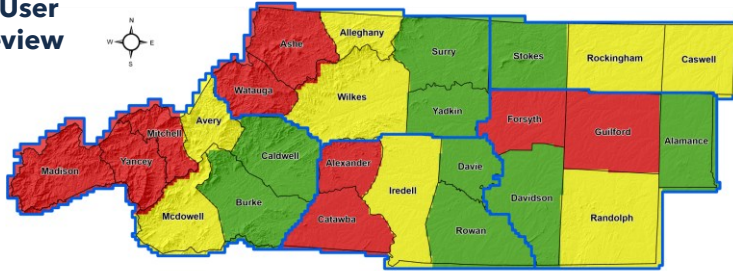
cycles in years due to record snowfall. More than a foot of snow blanketed the project area, delaying flights until February 28. Despite the delays, contractors completed imagery acquisition by March 24–25. A multi-vendor radiometry workshop helped finalize tonal calibration

across counties, resulting in high-quality imagery despite patchwork flight conditions. CGIA

is preparing for an eight-week quality review process (Figure 2) beginning July 20 and continuing through September 11, followed by county deliveries in September and October.

2026 End User Quality Review

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2026 Orthoimagery Review Schedule								
D01			D02			D03		
County	Review Start	Review End	County	Review Start	Review End	County	Review Start	Review End
Burke	20-Jul	14-Aug	Avery	3-Aug	28-Aug	Madison	17-Aug	11-Sep
Alamance	20-Jul	14-Aug	Alleghany	3-Aug	28-Aug	Alexander	17-Aug	11-Sep
Caldwell	20-Jul	14-Aug	Caswell	3-Aug	28-Aug	Ashe	17-Aug	11-Sep
Davidson	20-Jul	14-Aug	Iredell	3-Aug	28-Aug	Catawba	17-Aug	11-Sep
Davie	20-Jul	14-Aug	McDowell	3-Aug	28-Aug	Forsyth	17-Aug	11-Sep
Rowan	20-Jul	14-Aug	Randolph	3-Aug	28-Aug	Guilford	17-Aug	11-Sep
Stokes	20-Jul	14-Aug	Rockingham	3-Aug	28-Aug	Mitchell	17-Aug	11-Sep
Surry	20-Jul	14-Aug	Wilkes	3-Aug	28-Aug	Watauga	17-Aug	11-Sep
Yadkin	20-Jul	14-Aug				Yancey	17-Aug	11-Sep

NCDIT NORTH CAROLINA DEPARTMENT OF INFORMATION TECHNOLOGY

Figure 2 - 2026 orthoimagery review schedule

A needs assessment survey was created and released on NC OneMap last week. Ben reported that so far there are approximately 60 responses.

Geodetic Control – Gary Thompson

Gary Thompson reported continued expansion of North Carolina’s geodetic control network, incorporating stations from surrounding states. CORS (Continuously Operating Reference Stations) is the foundation for the geodetic network. There are now 101 receivers. Collaborations with Virginia Tech will provide new installations near the border. Work with the National Park Service and Oak Island partners will expand coverage in coastal areas. Only two small geographic gaps remain statewide.

Gary also highlighted preparations for the impending datum change, noting extensive outreach to land records groups, surveyor societies, and engineering organizations. The NCEM-established “datum help” email will centralize questions during the transition. Answers will be posted for all to utilize as the transition takes place.

Reference Frame – Gary Thompson

Gary discussed major changes associated with the shift to the 2022 reference frame and international foot, including updated tiling systems from NCDOT for imagery and LiDAR. He explained that tile numbering will differ between datums, complicating cross-year imagery comparisons. Some counties are still operating under older datums and will require support for backward projection. Monthly reference frame meetings with NGS advisors and DOT photogrammetry experts are addressing technical complexities ahead of the datum transition.

As mentioned, NCDOT has created a new tile layout based on the new datum and use of the international foot. The layout will be used when the orthoimagery program starts collecting data along the coast in 2028. The layout will also be used when NCEM collects LiDAR starting next year.

NC LiDAR Update – Gary Thompson

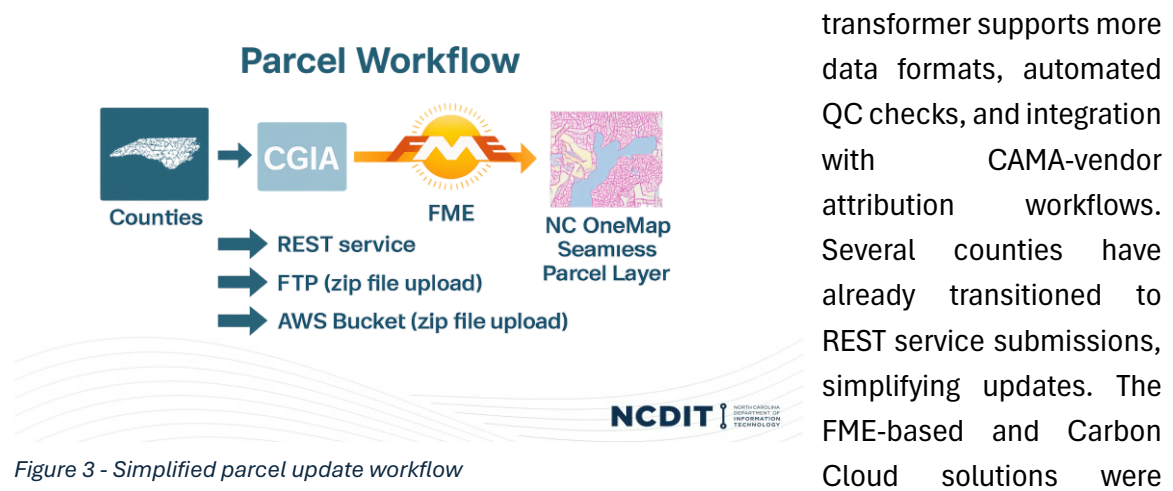
Gary provided updates on statewide LiDAR collections. He reported that 60% of the 2025 data will arrive on portable drives next week, with remaining counties completing QC checks soon after. The 2026 collections are fully flown, and contractors are processing the data. Planning has begun for the 2027 LiDAR cycle, which includes six additional counties. All 2024 LiDAR datasets are posted to Spatial Data Download, and Gary is coordinating with USGS for national 3DEP integration. The LiDAR collection areas match those used for NC Orthoimagery program data collection.

Working Group for Seamless Parcels - Elizabeth Daniel

The working group last met on May 27. It was a joint meeting with the data sharing committee, Emergency Management, and Dept. of Revenue. The subject was to discuss how best to bring attribution from CAMA vendors into the data set. Another meeting has been set for July 30 to review CAMA data so far. County tax assessors are also involved. The goal is to continue to receive parcel geometry from the counties and supplement it with CAMA vendor attributes, as well as building attribution and sales data.

Cadastral – Elizabeth Daniel

Elizabeth Daniel reported that the Carbon Cloud parcel transformer was officially retired June 1 and replaced with a CGIA internally hosted FME-based system. Data ownership has not changed - counties are still the data stewards and continue to update the data. The new



similar in cost, but the FME solution allows for much more functionality that can be applied to other data besides parcels.

Using the FME solution, counties have 3 options to provide their data to the parcel transformer. They can either share a REST service or download link, upload a ZIP file of the parcel data to the CGIA file transfer website, or upload a ZIP file to an Amazon Web Services (AWS) bucket. This last option will require an NCID and will be a viable option in Q3 2026. If there is a change to the county parcel schema, an email or an uploaded CSV with the updated fields can be sent and CGIA will update the “mappings” in the FME transformer. The general data workflow is outlined in Figure 3.

Hydrography Working Group – Cam McNutt

Cam announced the signing of a major MOU last week between DIT, DOT, and DEQ enabling advancement of the statewide hydrography dataset. DEQ has established a dedicated internal team to accelerate deployment into ATLAS and eventual public release. The hydrography working group continues biweekly meetings and is producing FAQs documenting dataset standards and workflows.

The HWG continues to meet every two weeks. The team is currently working on a series of Frequently Asked Questions for the data set.

Working Group for Administrative Units

Municipal Boundary and Annexation – Nathan Bland

Nathan reported extensive statewide outreach during May, with land records workshops held in Burlington, Concord, Fayetteville, Franklin, Washington, and Wilkesboro. The audience included local and county register of deeds, GIS practitioners, planners, and surveyors. He highlighted major enhancements to the municipal boundary submission portal developed by Colleen Kiley and Melanie Williams. Roughly 300 annexations have already been processed for 2026. Nathan emphasized statutory requirements for timely annexation submission.

Colleen reviewed the revamped municipal boundary update tool web site that Nathan mentioned. It was recently overhauled to accommodate accessibility. Other modifications include the ability to see which annexations have already been submitted, export the annexation data directly from the map layer list, and add your own data to the map by a URL or shapefile. Also added is a help section for the map layers, and the map and accessibility tools. The new site will first be tested by some local governments then be published to NCOneMap.gov. Colleen hopes to have the new web site go live next week.

County and State Boundaries – Gary Thompson

Gary reported completion of Caswell–Person boundary work, with recording scheduled for September after the mandatory 12-month waiting period. Other county boundary work is referenced in Figure 4.

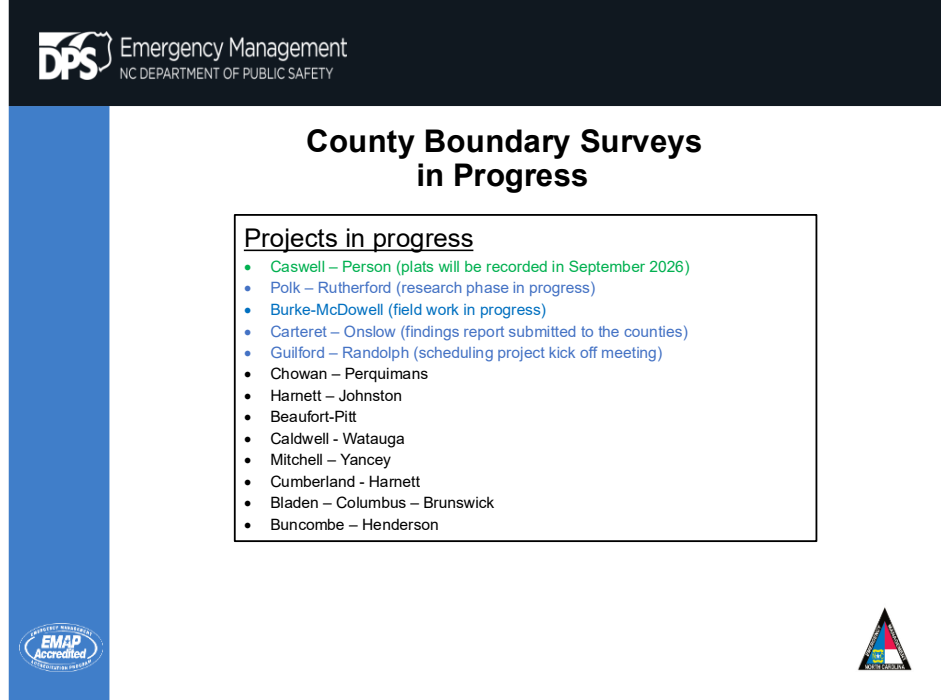


Figure 4 - Current county boundary survey work

Gary continues to push to have boundary commissions created for NC-VA and NC-TN.

Infrastructure Working Group

The IWG is currently inactive pending appointment of a new chair. Members discussed outreach strategies, including contacting municipal utilities and cooperatives. Several former members may be invited to rejoin once leadership is established. Colleen indicated the desire to have leadership from a private sector utility. Paul mentioned asking Amy Barron if there is someone at Duke Energy she would recommend as chair. Natalie Walton-Corbett suggested Sean Holly at Greenville Utilities.

NC Data Projects

Addresses – Darrin Smith

Darrin reported that April updates added nearly 75,000 new address points statewide, with 80% of North Carolina counties contributing. Wake, Mecklenburg, and Iredell accounted for the majority of new points due to rapid growth and multi-unit addresses. Darrin described how address quality metrics support LUCA test-county selection and highlighted ongoing improvements to statewide address accuracy. The data are updated every 6 weeks and is reflected in NC OneMap and the NAD

(National Address Dataset) maintained by the US DOT. On average, there are approximately 25,000 points added per month.

Building Footprints – Gary Thompson

Gary reported completion of building footprints using the 2021-2023 imagery, with updates using 2024 imagery underway. The state building footprints are now up to date through 2023. LiDAR and

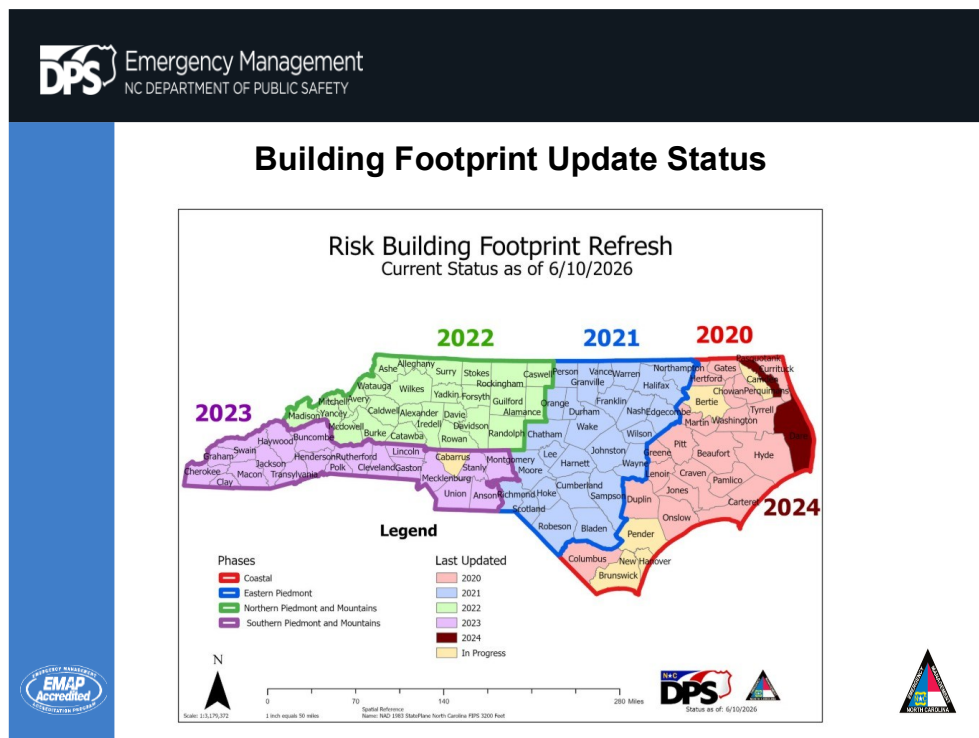


Figure 5 - Building footprint update

imagery-derived footprints are being integrated to improve detection accuracy. He indicated Census change-detection outputs cannot be shared, but CGIA hopes to replicate similar methodologies using raster analytics in ArcGIS Image Server and existing AWS infrastructure.

Ben mentioned that one of the results from the NC Orthoimagery survey showed that the number one product derived from orthoimagery was building footprints, underlining the importance of the data set to remain up to date and accurate.

Regular Status Updates

NC GIO Report – Matt McLamb

Matt reported progress on AWS modernization to rebuild NC OneMap's cloud environment. Deployment is expected to start in late July or early August, improving redundancy and enabling raster analytics. It will be approximately an 18-week project.

Metrics are tracked on the NCOneMap.gov web site as well as web service metrics. The NCOneMap.gov website receives between 1.2 – 1.3 million hits per month and nearly 48 million

service interactions (map zoom in/out, pan, feature identification). This underscores the need to modernize the underlying cloud environment.

Matt announced the 2027 NC GIS Conference will occur February 3 – 5 in Winston-Salem. GPN Carolina (formerly CURISA) will host the pre-conference workshops February 2nd.

USGS – Jo Baker

Jo briefly noted a new 3DEP project in southern Virginia overlapping North Carolina, and informed Gary as such. She may attend the Esri User Conference and invited colleagues to connect.

NC OneMap – Team Update

Melanie and colleagues reported ongoing improvements in accessibility tools and communications through DIT. NC OneMap content is increasingly visible through official state channels.

Other Business

None.

Meeting Action Item Review

None.

Adjournment

Paul thanked attendees and confirmed the next SMAC meeting for September 10 in Room 1210.

Attendance

In-Person

Name	Organization
Paul Badr	GPI, SMAC Chair
Ben Shelton	CGIA
Matt McLamb	CGIA
Colleen Kiley	CGIA
Melanie Williams	CGIA
Christian Vose	NCAGR
Gary Thompson	NCEM
Alice Wilson	City of New Bern
Elizabeth Daniel	CGIA
Darrin Smith	CGIA

Online

Name	Organization
Nathan Bland	NC Secretary of State
Cam McNutt	DEQ
Richard Greene	DOT
Mitch East	DNCR
Corinne Foster	DNCR
John Derry	CGIA
Jo Baker	USGS
Steve Averett	City of Greensboro
Eric Wilson	DOT
Mart Matthews	USGS