

MINUTES

Statewide Mapping Advisory Committee Meeting

Wednesday, April 10, 2024, 1:30 – 3:30 PM

NCDEQ Green Square Cardinal Conference Room (#4001)

Welcome/Introductions

In attendance: See attendance sheet at end of minutes.

The minutes from the January 10, 2024 meeting were approved.

The SMAC has a new member, Jo Baker, from the US Geological Survey. Jo is the new National Map liaison assigned to North Carolina, South Carolina, and Virginia. The position was previously covered by Chris Cretini.

Working Groups and Related Geospatial Data

Working Group for Orthoimagery and Elevation

Orthoimagery:

Ben brought the SMAC up to speed on the statewide orthoimagery program. 2024 will begin the fourth orthoimagery cycle for the state, starting again along the coast (shown in blue in Figure 1). This is a 27-county area. There are no buy-ups in the project area, however flights over bridges will be nadir to ensure they are not leaning over waterways. The contractors for this area are Sanborn, Surdex, Survey and Mapping (SAM), Atlas Geographic, and Spatial Data Consultants. The

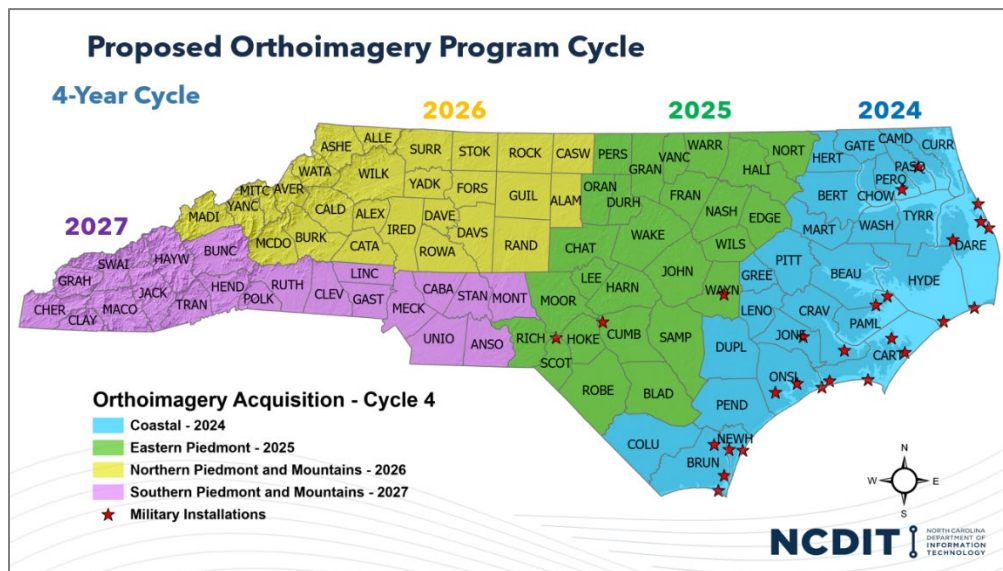


Figure 1 - 2024 orthoimagery cycle

project team communicated when data collection would occur with the North Carolina Wildlife Commission, so they could pause controlled burning in order to minimize smoke in the air. All flights in the project area were completed March 16. Anticipated delivery to the PSAPs is December 2024.

The 2025 project was approved by the 911 Board at their February meeting. True orthos will be collected over Raleigh and Durham. After contractors are selected, imagery acquisition will most likely start in early February 2025.

Geodetic Control:

Gary informed the SMAC that the CORS (Continuously Operating Reference Station) network will be the foundation for the new datums. There are two new additions - Knotts Island in Currituck County and Peanut Belt Research Station in Bertie County. The latter is a newer generation CORS that is solar powered and equipped with a cellular modem that communicates in real-time with the geodetic servers. There are five more stations planned for installation throughout North Carolina. Gary's team is also working with Virginia Tech to install monuments just north of the NC-VA border to help with post-processing of products in those areas.

Also, in preparation for the datum change the NC Geodetic Survey (NCGS), with assistance from NC DOT and the private sector, was assigned 1,400 monuments by NGS from which to record GNSS observations. All except 21 of them were observed - the remainder had no monument suitable for GNSS. What the new observations will do is populate a model for transformation from the current vertical datum to the new one.

The new datums will be released in 2025, however they will not become official until the FGDC votes on them in early 2026. At that point all federal agencies will be required to use the new datum. Similarly, North Carolina has their statute in place. There is going to be a transition period where both datums are used in the state.

The impact on the orthoimagery program will not be immediate. The current 4-year cycle will finish with the existing datums. This will allow software vendors to add the transformations into their software and give the CAD operators in the county 911 call centers time to prepare.

Reference Frame:

Gary added that counties need to prepare and determine how they are going to handle the change. NGS has published a document to assist in the adjustment. Metadata is key. NCGS works with the Secretary of State's office to spread the word to local governments.

NC LiDAR Business Plan:

Gary reported that the final draft is ready, except for a few additional use cases that need to be added. The plan is to have a final draft by the end of the month. It will be sent to the SMAC for review and discussed at their next meeting on July 10.

Working Group for Seamless Parcels

Cadastral:

Rich reported for Katie. At the recent GIS/Valuation Technologies conference sponsored by URISA, he, Katie, and Elizabeth spoke with the state of Ohio about their parcel aggregation efforts. Ohio has been able to create a more robust completion of attributes, including addressing and building attributes that NC is getting requests for in its statewide parcel dataset. The NC parcel team hopes to collaborate with Ohio to glean from them what they can to improve the NC product, to make it even better than it is now.

The cadastral committee last met on February 28, 2024. The group discussed:

- Communication options for quarterly parcel updates - The best course of action right now is to directly email reminders to the county contacts. Also, send emails to the NCGIS and NCPMA listservs.
- How to ensure the required and recommended fields are populated - The committee will work one-on-one with the county contacts as well as the CAMA vendors to increase field population and avoid blank values.
- Expanding knowledge of the seamless parcels program and the WGSP - Outreach opportunities can greatly increase visibility and participation. The committee discussed attending the GIS/Valuation Technologies conference in Charlotte and the NC Association of Assessing Officers conference in Greensboro.

In 2023, 99 counties provide at least one update of their parcels to the transformer. The breakdown by quarter for last year and this year to-date:

| Quarter | # of County Updates |
|---------|---------------------|
| Q1 2023 | 80 |
| Q2 2023 | 79 |
| Q3 2023 | 81 |
| Q4 2023 | 80 |
| Q1 2024 | 87 |
| Q2 2024 | 14 (as of 4/8/24) |

Hydrography Working Group

Colleen filled in for Cam. Scott and his group at Axiom have been working on the gaps identified in the analysis document, providing estimates and recommendations for pilot projects. The working group will convene to discuss those recommendations, including engaging break line work with NC Emergency Management.

The GICC Chair, Hope Morgan, sent a letter to the secretaries of DOT and DEQ in mid-February briefing them on the hydrography project and solicit any funding, depending on department priorities.

Working Group for Administrative Units

Municipal Boundaries and Annexation:

Bob commented that the boundary tool is working. The biggest issue has been to increase the usage of it, through outreach and incentive. The Secretary of State's office will be providing outreach across the state, as will the League of Municipalities. The hope is that the boundary tool will be the input for the US Census BAS (Boundary and Annexation Survey), possibly next year.

County and State Boundaries:

The important work of county boundary surveying continues - it has an impact on parcels and elections. The list in Figure 2 below summarizes it. Of note is McDowell-Mitchell where the plats have just been recorded and affected property owners were notified as per statute. The bill for Granville-Franklin was recently ratified so work has begun to add monuments. Mecklenburg-Union is still in committee and may not come back up during the General Assembly short session.

- Projects in progress**
- Jackson – Macon (establishing county boundary monuments in progress)
 - McDowell-Mitchell (plats recorded and property owners notified)
 - Catawba – Lincoln (findings report provided to the counties)
 - Granville – Franklin (HB438 ratified)
 - Mecklenburg – Union (HB457)
 - Caswell - Person
 - Polk – Rutherford
 - Chowan – Perquimans
 - Harnett – Johnston
 - Burke-McDowell
 - Beaufort-Pitt
 - Caldwell - Watauga
 - Mitchell – Yancey
 - Cumberland - Harnett
 - Bladen – Columbus – Brunswick
 - Buncombe – Henderson
 - Guilford-Forsyth

Figure 2 - County boundary surveying in progress

The NC Geodetic Survey has also been asked to confirm the location of a parcel in Watauga County along the NC-TN border.

NC Data Projects

Addresses

Darrin informed the SMAC the AddressNC project continues to post data updates to NC OneMap at least every month to six weeks. The last one was February 21st and saw 20,000 new addresses. The data is now bundled with the Esri world geocoder.

The next quarterly focus will be on subunits. It is apparent there are about seventeen counties that are not pushing their subunit address data to the NextGen program (the source of the AddressNC data).

Building Footprints

Gary said building footprint delineation continues. The coastal area is complete and will be beneficial in the event of a hurricane this season. Blue counties in Figure 3 have been completed. Footprints within Area 3 will be updated starting in May 2024 and will use the 2022 NC orthoimagery. Five interns will be assigned to perform this work.

The NCEM is also starting a pilot project with OpenStreetMap in Cumberland County to use OSM volunteers to update building footprints.

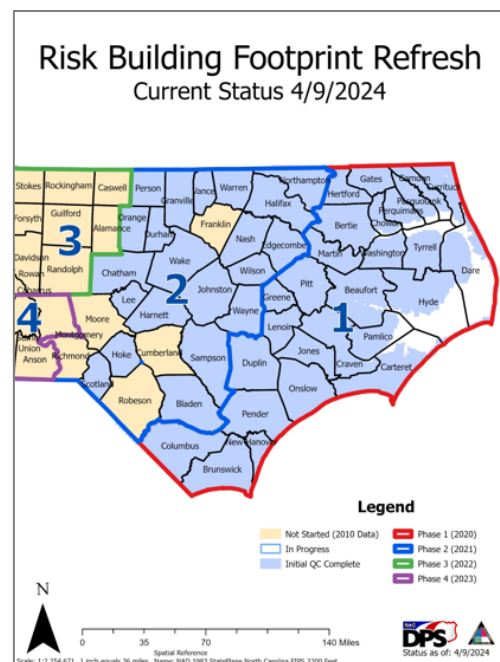


Figure 3 - Building footprint status

Land Cover

Ken and Colleen were able to report that all of North Carolina has been funded through various means. If funding falls through for the last part of NC, the State Energy Office pledged to fund it. Tim added that he talked to NOAA about the project timeline. The indication was that the data should be able to be delivered in two years.

LiDAR Update

Gary gave a quick update on LiDAR data development, which NCDOT and NCEM are collaborating on. All data has been converted to State Plan coordinates. DEMs have been created in counties shaded in blue in Figure 4.

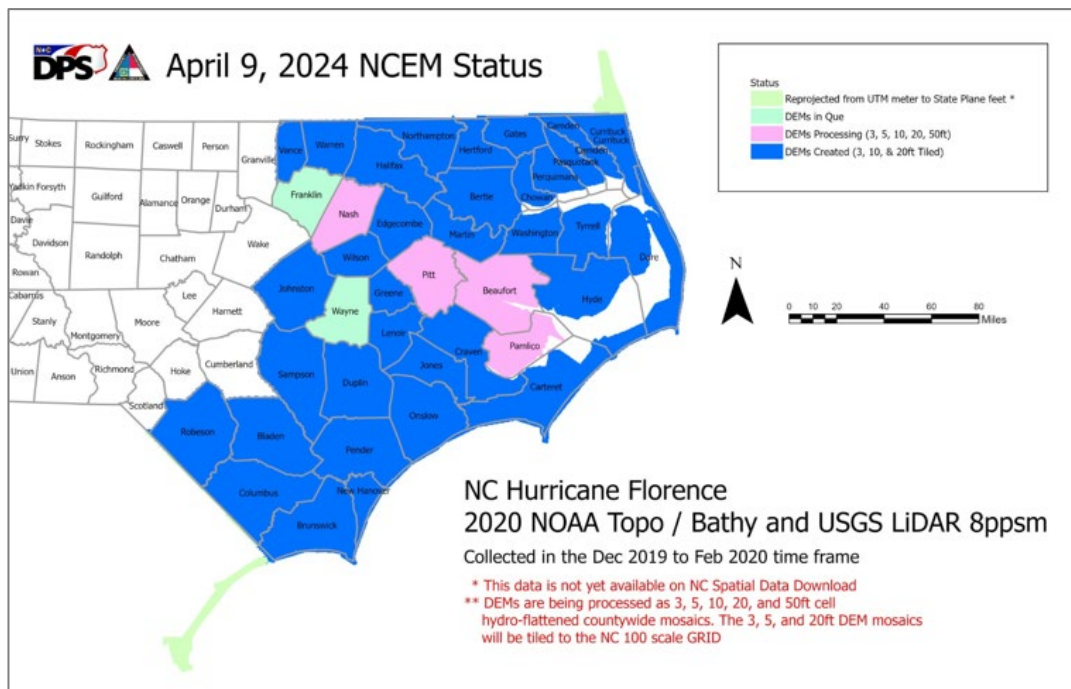


Figure 4 - NC LiDAR update

The data will be available from the NCEM Spatial Data Download website. All LiDAR that has been collected will be QL1.

Regular Status Updates

USGS/National Geospatial Programs Office

Jo told the SMAC the FY24 3DEP (3D Elevation Program) collaboration announcements for selected projects have been released. 3DHP (3D Hydrography Program) ones will be released soon.

NC OneMap

David mentioned that a new contour product will be coming online to NC OneMap in the next few weeks. It will be raster-based contour lines generated on-the-fly from the 3-foot county-based DEMs from NCEM. The contour intervals will be 1 foot, 2 feet, 4 feet, 20 feet, and 100 feet. There are no elevations directly attached to the raster lines, but point-spot elevations can be found by identifying a line (or any location) in the raster data set in a GIS. These contours are primarily to be used for giving terrain context on mapping products.

Other Business

May 8 GICC Meeting

Josh Delmonico, FGDC Executive Director, will brief the GICC on the NSDI strategic plan, which will be out for public comment in May.

Adjourn

In-Person Attendance:

| Name | Association |
|---------------------|---|
| Paul Badr, Chair | GPI Geospatial Inc. |
| Tim Johnson | CGIA Director, NC GIO |
| Nathan Bland | NC Sec. of State |
| David Giordano | CGIA |
| Gary Thompson | NC Emergency Management |
| Darrin Smith | CGIA |
| John Derry | CGIA |
| Christian Vose | NC Dept. of Agriculture and Consumer Services |
| Bob Coats | OSBM, Demographic and Economic Analysis |
| Colleen Kiley | CGIA |
| Ben Shelton | CGIA |
| Dr. Ken Taylor | NC Geological Survey |
| Joe Battinelli | Cabarrus County |
| Richard Greene, PhD | NC Dept. of Transportation |

Remote Attendance:

| Name | Association |
|---------------|--|
| Kitty Kolb | US Geological Survey |
| Ashley Yandle | NC Dept. of Natural and Cultural Resources |
| Alice Wilson | City of New Bern |
| Katie Scheip | Henderson County |
| Scott Davis | Axiom Environmental |
| Rich Elkins | NC Sec. of State Land Records Manager |
| Jo Bake | USGS |
| Zsolt Nagy | AECOM |
| Steve Averett | City of Greensboro |
| Eric Wilson | NC Dept. of Transportation |
| Matt McLamb | CGIA |
| Sean McGuire | NC Dept. of Environmental Quality |