MINUTES
Statewide Mapping Advisory Committee Meeting

Wednesday, October 11, 2023, 1:30 – 3:30 PM
NCDEQ Green Square Cardinal Conference Room (#4001)

Welcome/Introductions

In attendance: Paul Badr (chair), Gary Thompson, Tim Johnson, Jeff Essic, Darrin Smith, Elizabeth Daniel, Katie Doherty, Eric Wilson, Sean McGuire, Chris Cretini, Kitty Kolb, Joe Battinelli, Steve Averett, Nathan Bland, Bob Coats, Ben Shelton, Matt McLamb, Richard Greene, Colleen Kiley, Ken Taylor, Cam McNutt, Alice Wilson, Erin Gallagher, David Giordano, Zsolt Nagy

The minutes from the July 12, 2023 meeting were approved.

Working Groups and Related Geospatial Data

Working Group for Orthoimagery and Elevation

Orthoimagery

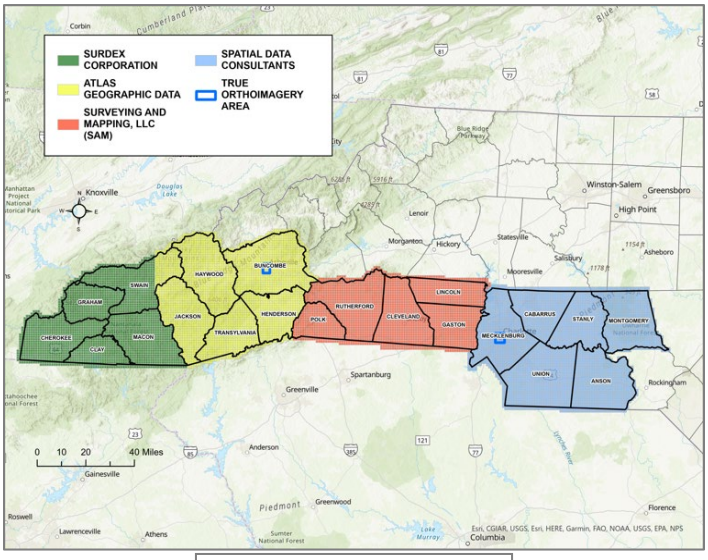

Figure 1: 2023 project area

Ben Shelton updated the SMAC on the progress of the orthoimagery program. The 2023 Southern Piedmont and Mountains project is progressing and is on schedule. As a reminder this covers a 21-county area from Cherokee County eastward to Montgomery (see Figure 1). Four-band ortho will be collected in the region, as was the case with the previous three. This will complete a statewide data set of color infrared imagery.

The project is currently in the quality control phase. Expected delivery of the data to the PSAPs and NC OneMap is expected in mid to late November 2023.

The 4-year cycle will start over in 2024 in the coastal plain. The coastal project has been approved by the NC 911 Board. Figure 2 shows the cycle. Imagery acquisition in the 2024 region will start in January.

Geodetic Control and Reference Frame

Gary Thompson indicated the CORS (Continuously Operating Reference Station) in Knott's Island and Franklin are operational. These stations, in addition to one that will be installed in Ocracoke, will be the foundation for the new datums in 2025.

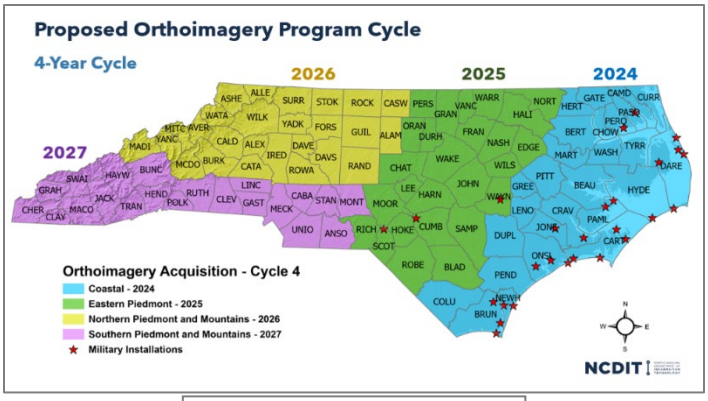

Figure 2: 2024-27 ortho cycle

Gravity data collection is key to the new datum. NCGS recently purchased a relative gravity meter. The increase in gravity data collection will improve the geoid model to achieve more accurate heights in the state.

NC LiDAR Business Plan

The group just convened another meeting. Their goal is to have the plan in the hands of the SMAC at their January 2024 meeting. Three of the 6 sections have been completed. The document contains numerous case studies. Gary indicated things are on track. He anticipates a draft plan in December 2023.

Working Group for Seamless Parcels

Through a series of meetings, the group has produced parcel field recommendations as a way to categorize and promote calculation of attributes coming from counties. The goal is to increase the population of fields to maximize the data set's use and return on investment.

Attributes are classified as "Required," "Recommended," or "Optional." Through this grouping, and with the continued effort of out-reach, it is the hope that counties will populate their fields for the benefit of regional and statewide analyses. There are benefits to local governments as well: Uploading a fully attributed parcel data set can act as a backup and ease the restoration of the data if needed. It also can reduce the number of data requests to the county. The SMAC unanimously agreed to forward this to the GICC for adoption.

With regards to the ongoing parcel data collection, 98 of 100 counties have provided updates in 2023. The breakdown by quarter:

- Q1 - 80 counties provided updates
- Q2 - 79 counties
- Q3 - 81 counties
- Q4 - 19 counties (so far)

Hydrography Working Group

The HWG is seeking a recommendation to pursue funding and other resources to address the needs identified in the gaps analysis document in order to make NC Hydro the most accurate data set in the state. Paul asked what level of effort is involved in funding the gaps. Cam responded that the prioritization of the identified gaps will help determine their level of effort to fund. Specific needs and related costs will be identified in Q1 2024.

Cam and the team hope to address the minimum set of items to be worked on to get the data in a place where it can be used by state agency users, first. The desire is to have this process by July 2024. The ATLAS team is currently using release version 2.1 of the data set in-house. They and the HWG hope this can be used as version 1.0 of the NC Hydro. There are some gaps identified by the HWG that are not gaps in the ATLAS process.

A motion was made and approved to recommend this to the GICC. Pending their approval, the HWG will pursue funding and resources to address the gaps and recommendations required to develop NC Hydro as the most accurate hydrography dataset for North Carolina.

Working Group for Administrative Units

Municipal Boundary and Annexation

Bob Coats indicated that the group is in a perpetual mode of outreach and promotion, targeting local governments. Related to this, Rich Elkins indicated he just spoke at the NC Arc Users Group conference about this topic, and at the NC Property Mappers Conference as well.

County and State Boundaries

Gary reported that the following county boundaries are in progress:

- Jackson - Macon
- McDowell - Mitchell
- Catawba - Lincoln
- Granvill - Franklin
- Mecklenburg - Union
- Polk - Rutherford

And 3 more projects will begin soon:

- Chowan - Perquimans
- Harnett - Johnston
- Burke - McDowell

Surveying has been completed for the North Carolina (Watauga County) - Tennessee border. Gary's team is working with the counties and states to finalize it.

Metadata Committee

While not specifically related to the committee, Eric Wilson informed the SMAC that DOT is assisting Gary Thompson and the NC Geodetic Survey with metadata as related to the updated GPS guidelines.

NC Data Projects

Addresses

Darrin Smith informed the SMAC the addressing data (download, web service, and geocoding/locator service) are current as of September 2023. Since June 2023, there has been a 2.6% increase in the number of address points across that state (new points). Wake County had an addition of 160,000 sub-addresses to existing address points in that same timeframe.

As of September 2023, address points from AddressNC have been added to Esri's world geocoding service. Esri will download the data quarterly from NC OneMap. Darrin is talking to Google about ingesting the AddressNC data monthly.

Building Footprints

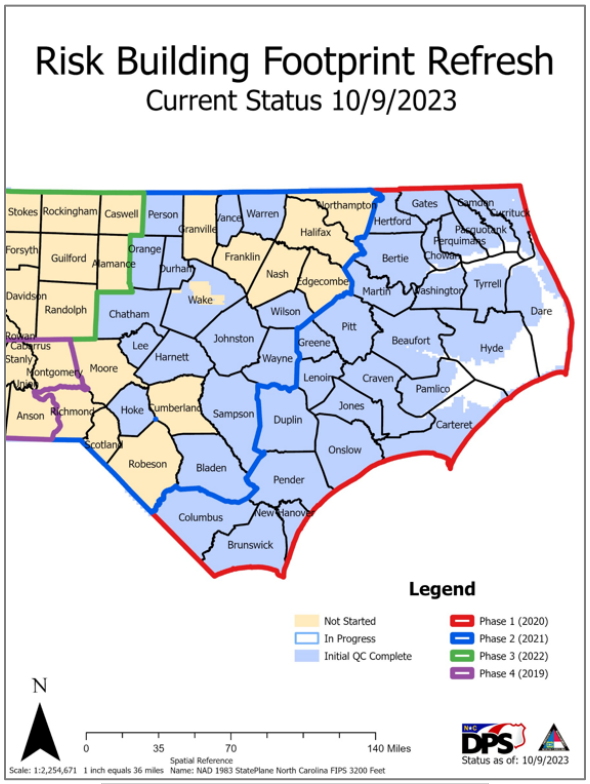

Figure 3: Building footprint status

Gary is adding resources to get Phase 2 back on track and wrapped up so attention can be turned to Phase 3. He added that once the data is complete it will be shared with NC OneMap. In the meantime, however, if someone would like the data to contact Dan Madding (daniel.madding@ncdps.gov). Almost all the 2020 Phase 1 area was captured by manual digitizing. Starting with Phase 2 and moving forward, NCEM will update the machine-learning data created by CGIA. Gary added his team is seeing the AI data about 85-90% correct. He believes over time that number will be higher.

Regular Status Updates

USGS/National Geospatial Programs Office

Chris Cretini updated the SMAC on the Hurricane Florence topo LiDAR and bathymetry project. The dataset is almost complete - 3 work units remain. There have been a few back-and-forth discussions between the contractor and USGS regarding QA and deliverables. Issues seem to be minor - inconsistencies between the actual LiDAR point cloud and what was

included in the reports and metadata. Also there are some inconsistencies in the footprint of the data and the actual tiles that were delivered. The rest of the project has already been published on the National Map.

NC OneMap

David Giordano indicated the 2023 orthoimagery project data will be available from NC OneMap sometime in mid-November as web services and county-based mosaic downloads.

With regards to contour lines from the new NCEM LiDAR, all data has been copied to the CGIA Amazon cloud storage. CGIA has generated county-based downloads of 1-foot contour lines in Esri file geodatabase and OGC geopackage formats. There will also be a web service of the 1-foot contours as well.

Other Business

Landcover

Ken Taylor and Colleen Kiley convened a group of stakeholders to determine their needs for an updated landcover data set. It has been over 5 years (June 2018) since the initial document was created. The homework for the group is to review the entire document and consider what new needs they have related to this data. The goal is to draft a report to be completed in early 2024.

Adjourn