

# MINUTES

## Statewide Mapping Advisory Committee Meeting

Wednesday, July 12, 2023, 1:30 – 3:30 PM  
NCDEQ Green Square Cardinal Conference Room (#4001)

### Welcome/Introductions

In attendance: Paul Badr, Christian Vose, Darrin Smith, Gary Thompson, Colleen Kiley, Ashley Yandle, Tim Johnson, Richard Greene, Nathan Bland, Dr. Ken Taylor, Eric Wilson, Cam McNutt, Rich Elkins, Steve Averett, Alice Wilson, Bob Coats, Elizabeth Daniel, Scott Davis, Joe Bettinelli, Chris Cretini, John Derry, Sean McGuire, Ben Shelton, Katie Doherty

The minutes from the April 19, 2023 minutes were approved.

### Working Groups and Related Geospatial Data

#### Working Group for Orthoimagery and Elevation

Gary indicated the group met this past Monday to get caught up on their activities. He started by giving an update on geodetic control and reference frame.

#### Geodetic Control and Reference Frame

Approximately 6-8 CORS stations were knocked offline yesterday when a cable was inadvertently cut in Raleigh. Some data was lost but because NC has such a dense network of stations users were not impacted.

Four new CORS have been accepted by the National Geodetic Survey. They are in Franklin, Sparta (2), and Knotts Island. The CORS network will be the basis for the 2025 reference frame adjustment. The more stations that are part of the network, the better the adjustment will be.

NGCS is building transformation parameters from the current datum to the new datum through their GPS on benchmarks project. NGS is collecting observations from 1400 monuments in NC.

#### Orthoimagery

Ben reported the 2023 project is in full-swing in the southern piedmont and mountain area. The area covers 21 counties and over 10,000 square miles. Four-band imagery will be developed for this phase and will result in the entire state having the fourth band.

True orthos are being flown for Asheville and Charlotte. There are 4 vendors collecting the orthoimagery in the 2023 project area – Surdex, Atlas Geographic Data, Surveying and Mapping (SAM), and Spatial Data Consultants. The contractors were able to collect the imagery for entire project area in the span of little over a month (see Figure 2).

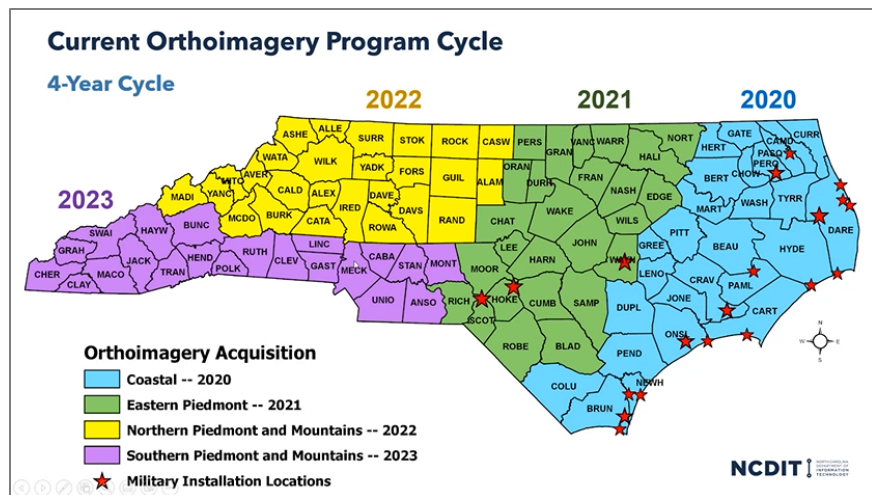


Figure 1 – Orthoimagery project areas for current 4-year cycle

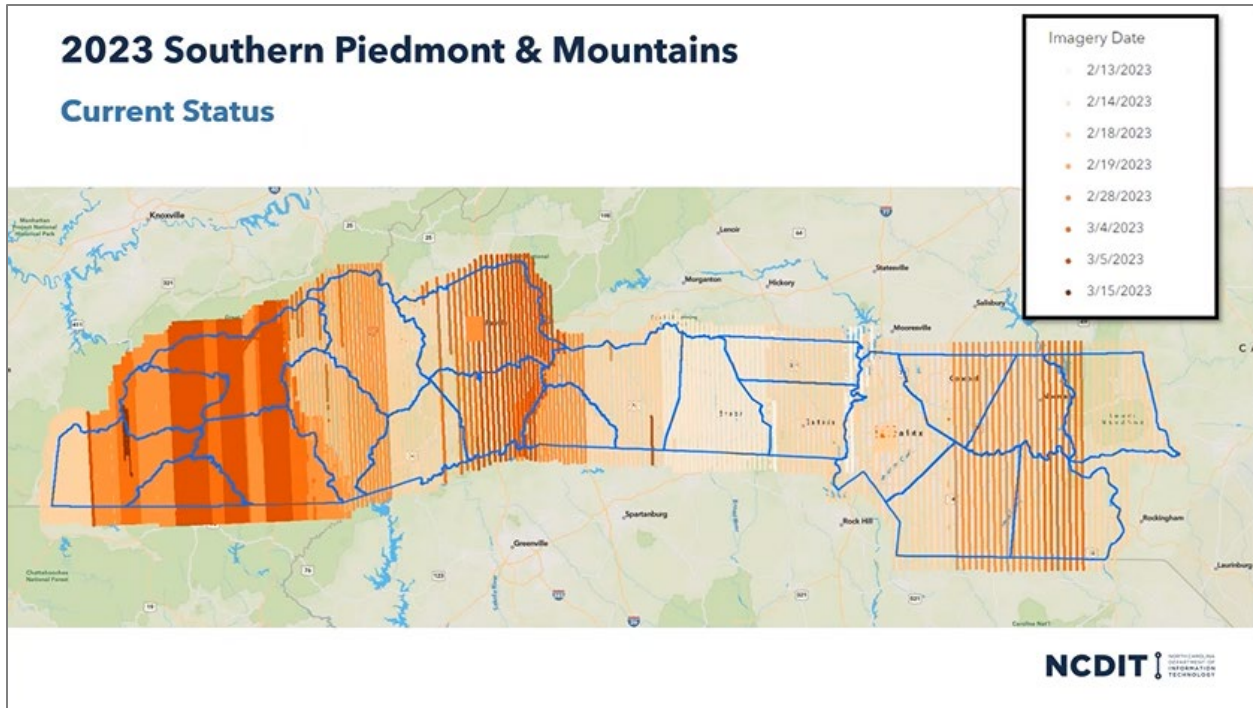


Figure 2 – Collection dates for 2023 project area

County QC training occurs on July 18. The first counties will begin to be reviewed starting July 24. Counties will review through September. The expected delivery timeframe is mid-November - December 2023.

The 2024 project was recently approved by the 911 Board. This will start the 4<sup>th</sup> cycle of imagery for the state. This cycle will follow the same alignment of counties in the 4 project areas. Vendor QBS (qualifications-based selection) process will kick off this month. The plan is for 2024 acquisition to start in late January, the earliest of all the project areas.

The 2024 Orthoimagery project will begin a new 4-year cycle of projects to cover the entire state. The qualifications-based selection (QBS) process for the 2024 project will be used to pre-qualify vendors for the entire 4-year cycle. This will allow NCDIT to select vendors from the pre-qualified vendors for subsequent project years without going through the full QBS process each year.

NC LiDAR Business Plan

Gary reported the next meeting will be scheduled for mid to late August. Case studies have been documented and the introduction to the business plan has been written. Gary’s hope is the technical section will be ready for the committee’s review by the end of the week. The section in economic impact is also in production. Things are on track to produce the final plan for SMAC review in December 2023, with discussion at the January 2024 SMAC meeting. If approved, it will be forwarded to the GICC for their February 2024 meeting.

Working Group for Seamless Parcels

Katie indicated that 8 counties have provided updates during the Q3 2023. A total of 69 counties updated in Q2 2023. The status map is shown in Figure 3. The working group asks counties to update every quarter, at a minimum, but that is

problematic for some because some updates are tied to the county tax system.

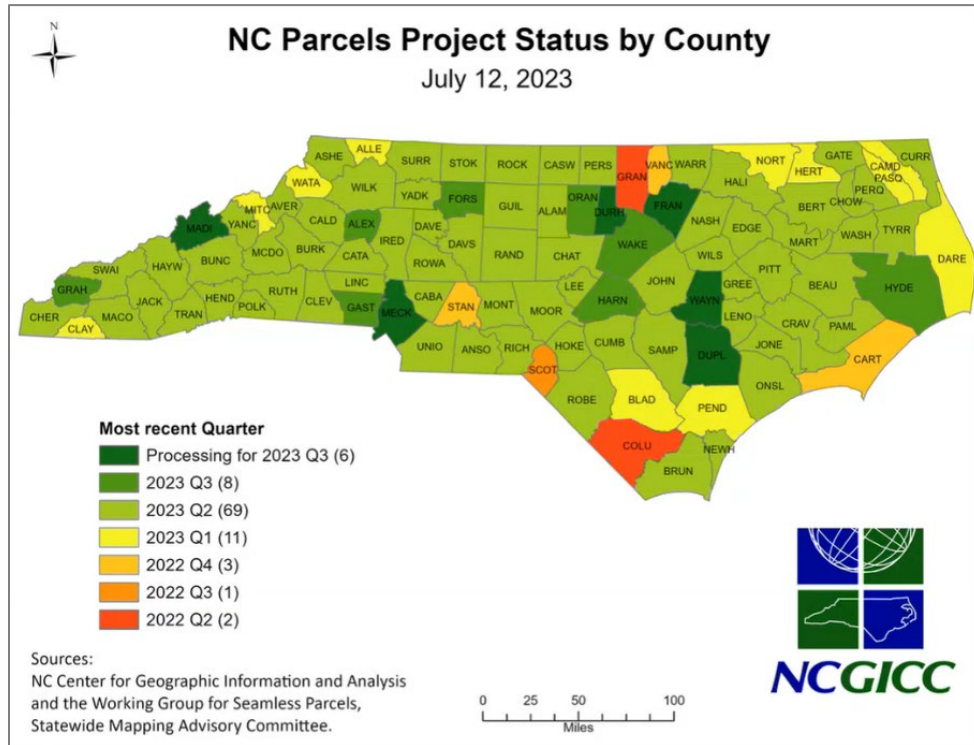


Figure 3 – Parcel data update status

All members of the parcels group filled out a survey as to what fields they thought should be required, recommended, or optional. They held a meeting on June 29 where they discussed all 65 fields in the parcel layer. A final meeting will be held to discuss and approve how the fields should be categorized. As an education and outreach opportunity, Katie recently spoke at an Lands Record

Management Program workshop where she emphasized the importance of the seamless parcels project and keeping the parcel data current.

Hydrography Working Group

Cam told the SMAC the HWG has been meeting regularly. The group realized the two data sets for DOT and the remainder of the stakeholders will be in a state of constant changes and updates with no one finalized data set for either.

A [website](#) has been developed to solicit user feedback and broadcast known issues. For example, an issue is the pixelation of hydrography lines when zoomed to large scales. Feedback suggests some users are not overly concerned with that and that they seek hydro network accuracy over a product that is cartographically polished, while others need a cartographic product. The website seeks to collect use cases and preferences that can be used to recommend one course of action over another.

The biggest emphasis is being placed on the gap analysis. The document is almost completely written and will outline what is currently available in the ATLAS hydrography and what the HWG desires for all stakeholders. Related to the data, Cam indicated the group needs input as to how users will want to access the information. What is desirable? A download? A curated map where users can click on features and perform queries? Feedback is needed.

Paul asked how recent the surface water data is? Cam responded it is based of the most recent LiDAR data the state has. In response to Paul's next question about a completion date, Cam could not give a firm answer because the ATLAS data is being integrated to fit into a North Carolina data set. Part of the problem is some of the data gaps are being

resolved as the gaps analysis is being written and finalized. It is advantageous to determine what date the gaps will be “frozen” so the document can move forward, and as not to have the data in a perpetual state of updating. Colleen added the data needs to be given to the wider community, outside of the HWG, so it can be reviewed and “test driven.” Paul and Tim expressed their desire to set a timeline as they are asked continually in meetings when can the community expect the hydrography product.

Paul asked is it reasonable to have the analysis document ready by the October 11 SMAC meeting. Both Cam and Colleen think that is realistic. Tim articulated the need to finish the project sooner than that as opportunities may exist to express the need, through the GICC, for funding to the NC legislature. He proposed comments from the SMAC to the GICC before their November 1 meeting. That way the November GICC meeting could be the meeting where a conclusion is reached towards a possible recommendation to the legislature.

Looking at the calendar Paul indicated the SMAC would like the gap analysis document completed September 15 when a meeting will be scheduled specific to this task. A reminder will be sent to the committee 30 days prior.

Working Group for Administrative Units

Municipal Boundary and Annexation:

Bob reported that 28 municipal boundaries have been approved and 27 annexations submitted. There have also been 41 updates to existing boundaries in the system. Outreach efforts continue through the Secretary of State’s office to urge municipalities to use the tool more and that this should be the mechanism used going forward.

County and State Boundaries:

Gary indicated there were close to 100 boundary monuments placed along the Jackson-Macon ridgeline border, and as a result plat recording has been delayed. Other county boundary projects are listed in Figure 4.

There has been continued discussion with Virginia on the formation of a boundary commission. Watauga County has asked for confirm the location of the NC – TN border.



Figure 4 – County boundary status

NC Board on Geographic Names

The NCBGN discussed 10 names at their July 10 meeting. Cam stated the names include 6 recommendations for unnamed features.

1. **Unnamed to Atsadi Falls/Bemis Camp Falls** – The NCBGN recommendation to the SMAC is Bemis Camp Falls. The SMAC approved.
2. **Chesquaw Branch to Tsi-squa-hi Branch** – This rename pertains to a pejorative term in-place that is used for certain Native Americans. Tsi-squa-hi Branch is the recommended name by the NCBGN. The SMAC approved.
3. **Unnamed to Lower Vernal Falls** – NCBGN recommends this name. The SMAC approved.
4. **Unnamed to Upper Vernal Falls** – NCBGN recommends this name. The SMAC approved.

5. **Unnamed to Brooklyn Creek** – NCBGN recommends this name. The SMAC approved.
6. **Unnamed to Bluebill Hill** – There was some confusion about what the feature was and its exact location. No vote was taken by the NCBGN as more information is needed from the name proponent, local governments, and the USBGN. There is no recommendation to the SMAC at this time.
7. **Unnamed to Wet Paws Creek** – NCBGN does not recommend naming this waterbody. Local governments are opposed to it, and it is already named in the official state database as Spring Valley Lake. Changing the name will cause issues to local ordinances. The SMAC approved.
8. **Unnamed to Love Mountain** – NCBGN is neutral on this naming. The mountain is on private property. The SMAC approved.
9. **Eagle Island to Eagles Island** – NCBGN recommend this name change, as it relates to the historical name of the feature. The SMAC approved.
10. **Unnamed to Paw Paw Branch** – NCBGN is neutral on this recommendation. They consider it nonsensical. The SMAC approved.

Metadata Committee

Eric informed the SMAC there is a DOT person coming on board that can assist in this committee. He welcomes anybody else with an interest to join the group.

**NC Data Projects**

Addresses

Nearly all addresses in the AddressNC database are sourced from NG911, as shown in Figure 5. Robeson County is the latest to have their data added through NG911. Bertie’s addresses are added through their parcel data, Pitt County

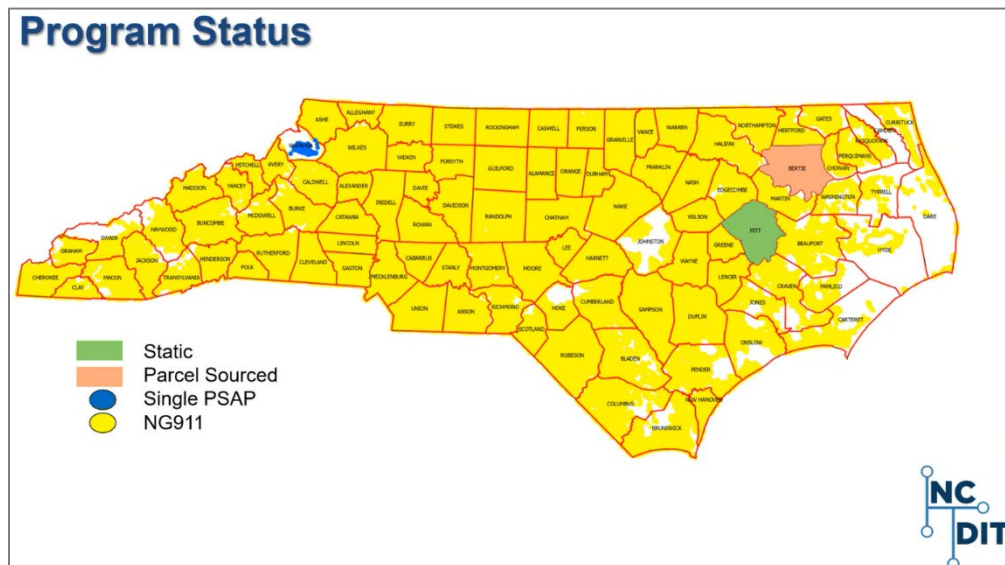


Figure 5 – AddressNC data sources

addresses points have not updated since December 2022, Watauga County is absent except for the Beech Mountain and Boone PSAPs which submit data to NG911 on their own. Darrin indicated he is in communication with Pitt County and Greenville to get the addresses updated. As a whole, AddressNC is current in NC

OneMap up to June 2023.

The entire project consists of 19 “inconsistency” data layers (anomalies, conflicts, etc. in the data), a production data set of over 5.5 million address points, and map, feature, and geocoding services. There is also a geocoding package for

offline geocoding. An addition to the geocoder is the ability for it to find just cities or towns in NC. The source data for this functionality is the new draft statewide municipal boundary layer.

There have been a series of meetings with Google to develop a method in which they can extract the address points they need. The data will be obtained through NC OneMap and not the National Address Dataset. Google will update their data monthly. Ideally, AddressNC will update just prior to Google obtaining the data. Darrin will work on the logistics of this.

There are on-going conversations with other tech companies that may need the address data – Bing, Apple, Amazon.

### Building Footprints

CGIA has continued to supply the AI-generated footprints to NCEM for QC. All of Phase 1 (year 2020) has been completed. Phase 2 is underway. Gary said the hope is to finish this phase by the end of August. The goal is to do yearly updates to coincide with new orthoimagery releases. The current status is shown in Figure 6.

### **Regular Status Updates**

#### USGS/National Geospatial Programs Office

There were 4 topobathy work units that were outstanding as reported at the April SMAC meeting. Since then, work unit 15 has been provisionally accepted. This is the southern-most unit of the four. Another unit was sent back to the contractor for corrections, and the remaining 2 (13 and 14) are still going through QC. Chris reported that the timeline for having all the data accepted is sometime Fall 2023.

### NC OneMap

No report at this time.



Figure 6 – Building footprint status

## Other Business

### Landcover Opportunity with SC

Colleen reported that SC is interested in a partnership with NC and NOAA to map landcover, as shown in green in Figure 7. NOAA will provide a coastal product. The product is a 4-class landcover data set with 1-meter spatial resolution. The

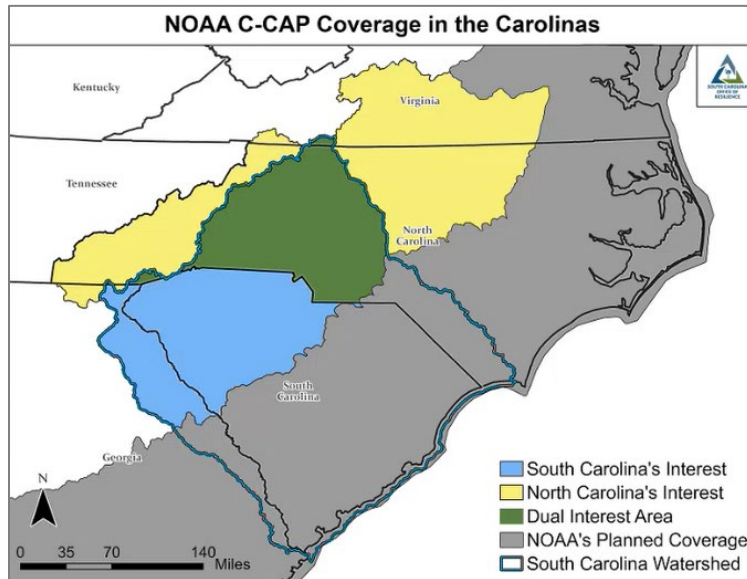


Figure 7 – Potential landcover partnership area (gray)

Division of Coastal Management has spoken with NOAA in the past about landcover partnerships.

Colleen and Ken have spoken about getting the Landcover Working Group up and running again to look at recommendations it had drafted a number of years ago. Previous members have been contacted to gauge their interest in the reformation of the group. Paul asked that the Landcover Working Group appear on the next SMAC agenda. Tim agreed to share the final report from the July 2019 original working group.

### Draft FY 2023-2024 Work Plan Review

Paul walked through the objectives on the draft work plan for FY23-24.

With regards to objective 3.2, Eric indicated he might be able to have someone assist with the metadata section in the GPS guidelines document Gary is drafting.

Eric also mentioned there are some data requirements from ATLAS that might assist in discussions for objective 3.3. He offered to send a link to the group with more information.

Relative to object 4.5, Eric said he would contact David to see if there has been any feedback to an email he sent in May to the SMAC to determine if an update to the roads content standard is warranted.

### **Ideas on formation of working group to create, update, maintain school locations**

This was discussed earlier with the possibility of ATLAS data and/or requirements playing a role.