

MINUTES

Statewide Mapping Advisory Committee Meeting

Wednesday, January 11, 2023, 1:30 – 3:30 PM
NC Secretary of State's Office - Hybrid Meeting

Welcome/Introductions

In attendance: Paul Badr, Tim Johnson, Sean McGuire, Elizabeth Daniel, Darrin Smith, Ashton Bailey, Katie Doherty, Nathan Bland, Rich Elkins, Gary Thompson, Eric Wilson, Christian Vose, Alice Wilson, Bob Coats, Pam Carver, Matthew McLamb, Steve Averett, Chris Cretini, Cynthia Ritmiller, Ben Shelton, David Giordano

Paul welcomed three new attendees to the meeting:

Katie Doherty - Pending SMAC approval at the today's meeting, Katie will be the new co-chair of the Seamless Parcels working group, replacing Pam Carver. Katie has an extensive background in GIS and land records that includes 12 years at Rutherford County as the GIS/Addressing/Land Records and Parcel Mapping supervisor in the Tax Office, including the last 5 years as the GIS and E911 Systems Administrator. Katie is also the 2023 NCPMA president.

Cynthia Ritmiller - Cynthia works for the US Geological Survey's National Geospatial Technical Operations Center (NGTOC) in Denver, CO. She is the new USGS liaison for North Carolina, replacing Silvia Terziotti and Kitty Kolb on the SMAC. Cynthia has extensive knowledge about the National Hydrography Dataset (NHD) and will also provide valuable insight to the SMACs Hydro Working Group. Cynthia has presented on the NHD at regional and international conferences and has a degree in Geography from the University of Colorado at Denver.

Chris Cretini - Chris is the Acting Southeast Region Liaison Supervisor, as well as the National Map Liaison for Arkansas and Louisiana. Along with his years of experience as a liaison, Chris has been a leader in the Geospatial Information Response Team (GIRT) which works closely with Federal and State agencies to coordinate, communicate, and disseminate geospatial data during disasters.

The minutes from the October 12, 2022 minutes were approved.

Working Groups and Related Geospatial Data

Working Group for Orthoimagery and Elevation

The committee will meet again later this month. It will be a joint meeting with discussion on the LiDAR business plan also being planned.

Orthoimagery

The 26-county area in the 2022 project area (NW NC) received their imagery during the first week of December. It was delivered to the 30 PSAPs in that region during three different delivery meetings. At the same time the imagery was made available on NC OneMap - 3 and 4 band products, download and web services.

The 2023 project is ramping up. This is a 21-county area in southwest NC. Crews are preparing for flights which should start in the first week of February and typically lasts until mid-April. The delivery schedule for this data is similar to previous years - late November to early December.

Geodetic Control

The framework for geodetic control and the new reference frame is CORS (Continuously Operating Reference Station). There are currently 84 stations operational including 2 installed near Sparta for earthquake monitoring.

Reference Frame

New datums will be released in 2025. Draft revisions to NCGS 102 are being developed. A new State Plane coordinate system will also be implemented. It was devised to minimize the impact on the county land records management programs. The new system was designed to be more topographically fitting, so that the ground to grid distortion is reduced (green areas in Figure 1).

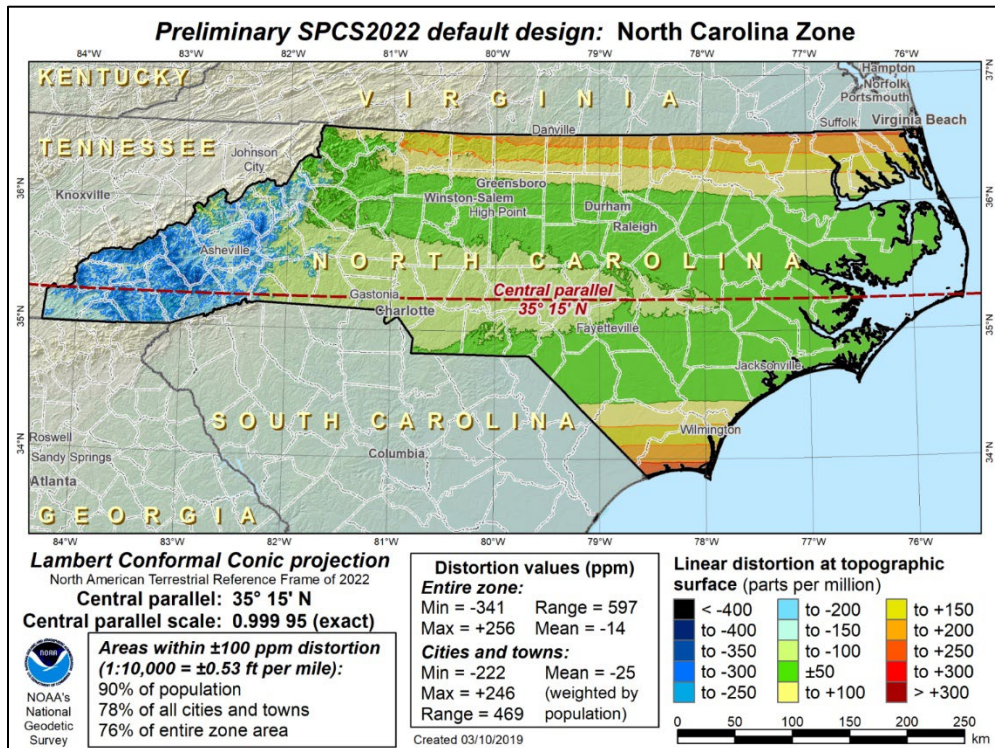


Figure 1 - New upcoming NC State Plane coordinate system

The US Survey Foot was officially retired by the federal government at the end of the year. However, North Carolina law still permits it. This measurement will be used until the new datums are released. The legislation being drafted will say when using the new datum the international foot will be used. But when using the existing datum US Survey Foot will be used.

Working Group for Seamless Parcels

Katie gave the WGSP update and thanked everyone for letting her be a part of this group. In 2022 a total of 97 counties provided parcel updates. So far in 2023 that number is already at 23 for Q1.

Katie met with Pam Carver recently to discuss the project and future goals. She intends to talk with committee members to see if they would like to continue to serve, and if not bring in new membership. Katie also expressed the desire to keep Pam on the committee as long as possible.

With regards to Katie as the new co-chair of the WGSP, Pam expressed confidence that she would bring the energy to refresh the direction and improve participation and data quality of the seamless parcels effort. That said, Rich made a motion to approve Katie as co-chair. It was seconded by Gary. As there was no opposition, Katie was voted as the new committee co-chair.

Tim Johnson thanked Pam for all the time and effort she put into the working group. The project is a success in large part because of Pam's role in it.

Hydrography Working Group

Colleen reported for Cam. John Derry has been developing a mock geodatabase from which the schema will be based. He has been reviewing USGS specifications and the output from the ATLAS project to determine where gaps exist. The first formal meeting of the year will be scheduled sometime during the next few weeks.

Tim added that this work will be a topic of discussion at the next GICC meeting as it is a priority of the Council.

Working Group for Roads and Transportation

Eric provided an update. The group will be engaged concerning a definitive source of evacuation routes in NC. Dialog about this reveals the primary source of this data are local governments. Others involved include NCEM and NCDOT.

NC Data Projects

Addresses

Darrin introduced Ashton Bailey. Ashton will be working on the AddressNC project for CGIA as well as other projects as needed.

The initial release of AddressNC data occurred December 20th through NC OneMap. The project page for AddressNC can be found by going to the top of the nconemap.gov page and looking under Data Projects or by scrolling down the home page and looking in the Statewide Data Initiatives section. The page provides a wealth of information concerning the AddressNC technical approach, data schema, and project in general. There is a FAQ that addresses questions and a list of all address-related data sets, core and supplemental.

Data-wise the central data set contains approximately 6 million address points. There are also 16 distinct quality-control related data that are available. Address data are downloadable by county. A free geocoding service is also available.

Paul noted there are older versions of the data from 2009 and 2014 also accessible. Darrin responded these are kept for comparison to the new address data, and unlike these data which were created as a snapshot in time with one-time funding, the AddressNC address points will be updated monthly. A standard web map exists depicting address points. The geocoding functionality in the app uses the AddressNC geocoder, rather than Esri's ArcGIS world geocoder.

Still to do is outreach to explain all the data and how it can be used and enhance the QC program. The final goal is to develop dashboards, status reporting, and visualization.

Municipal Boundary and Annexation

Colleen told the SMAC this group will be meeting later this month with a focus on outreach and communication with the word that local governments need to approve or update their municipal boundaries. Colleen said she would ask NC Emergency Management (NCEM) and NC Dept. of Transportation (NCDOT) for their versions of boundaries and use those to update what is currently on-line in the application. This will hopefully reduce what local governments need to update, and they can merely go into the application and approve the boundary.

Building Footprints

Gary provided the building footprint update. Following through with the remote sensing AI feature extraction exercise, Ben forwarded NCEM a pilot area where machine learning was used to define buildings from the NC

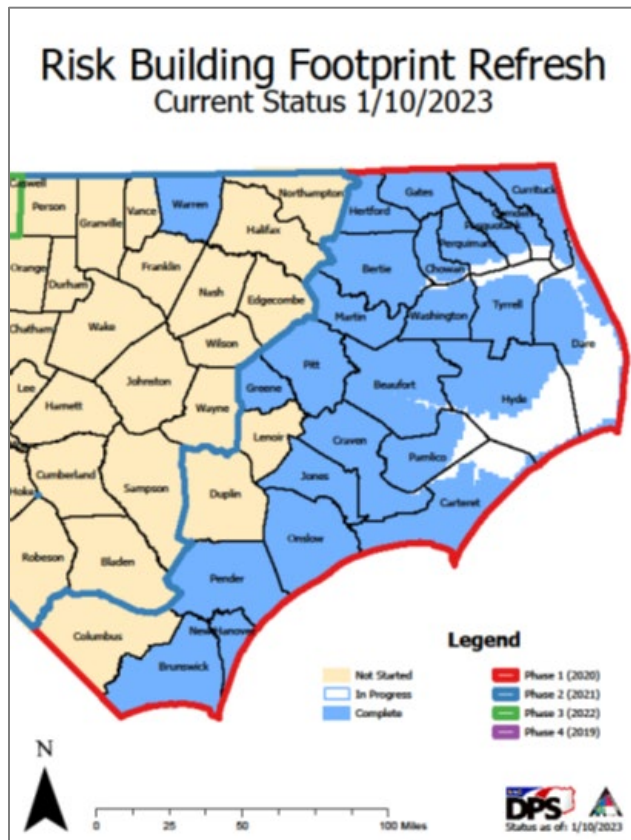


Figure 2 - Status of building footprint mapping using traditional methods (blue is complete)

OneMap orthophotography. Brunswick County was sent to NCEM and was compared against building footprints captured through traditional methods. Johnston and Wake counties' buildings will be mapped by the machine learning next. Gary said the goal is to get away from mapping footprints using manual means.

Figure 2 shows the status of mapping building footprints using the traditional methods. Counties shaded blue are complete. Those with blue borders are in progress. Manual digitization will continue with the AI footprint creation in a parallel path along side. The manual mapping uses 2020 imagery.

The pilot project will convene once a contractor is in place. After that, the focus will return to what the overall funding need is.

Regular Status Updates

USGS/National Geospatial Programs Office

Cynthia informed the SMAC she is on temporary detail as the liaison for NC and will be at the next few meetings. Chris is also available to answer questions. Cynthia has been working on the 3DHP fact sheets and is interested in including a local

component to them. She asked if there are any 3DEP examples of areas the SMAC feels need to be highlighted, to let her know. Colleen said she would put John Derry in touch with her to discuss specifics.

The National Geospatial Technical Operations Center (NGTOC) is focusing on the 3DHP schema and what they want the data to look like. Current thinking is that USGS will take some of the current NHD and use that to populate the first round of 3DHP.

NC OneMap Update

David quickly added that the seamlines for the 2022 imagery - the data that shows the specific date and image is captured - will be discoverable from NC OneMap soon.

County and State Boundaries

Gary reported that the Davie-Yadkin boundary is finalized and the only thing that remains is for the final plats to be recorded. The Catawba - Lincoln border was surveyed years ago and not until recently Gary's group was contacted so it can be completed. The status of all the projects is in Figure 3.

DPS Emergency Management
NC DEPARTMENT OF PUBLIC SAFETY

County Boundary Surveys in Progress

Projects in progress

- Davie – Yadkin (Final plats have been recorded)
- Jackson – Macon (Plats to be recorded in January 2023)
- McDowell-Mitchell (Counties have adopted resolutions accepting reestablished county boundary)
- Catawba – Lincoln (Counties have provided written request to assist with reestablishing county boundary)
- Granville – Franklin (Findings provided to the counties)
- Mecklenburg – Union (County boundary Information provided to the counties)
- Montgomery – Richmond (reviewing findings report)
- Caldwell - Watauga
- Mitchell – Yancey
- Cumberland - Harnett
- Bladen – Columbus – Brunswick
- Polk – Rutherford
- Chowan – Perquimans
- Harnett – Johnston
- Buncombe - Henderson

EMAP Accredited

NC GEODETIC SURVEY

Figure 3 - Status of county boundary surveying by NC Geodetic Survey.

Other Business

2023 NC GIS Conference

Tim told the SMAC the NC GIS Conference is March 8 - 10 in Winston-Salem. There will be two keynote addresses. One is by Bill Johnson, former NY GIO, and the other will be by Dr. Joseph Kerski, an author and geographer from Esri.

FY 2022-23 Work Plan Major Task Review

With regards to item "4.5 - Research and recommend solutions for landcover data in collaboration with NOAA", Colleen said she put Dr. Ken Taylor in contact with her contacts at NOAA. She's unsure if they have had a conversation yet.

On item "3.3 - Review and update of GPS guidelines given the advances in technology", Gary has asked for a volunteer to help review the metadata section.

Possible new working group for Administrative Units

Gary will be the new chair of the Working Group for Administrative Units, which will encompass the Municipal Boundary and Annexation and County and State Boundaries groups.

Meeting Action Item Review

Paul thanked Silvia Terziotti and Kitty Kolb for their hard work as the USGS liaisons to NC and again welcomed Cynthia Ritmiller and Chris Cretini as the new liaisons.

Adjourn