

Statewide Mapping Advisory Committee Meeting

Wednesday, January 29, 2020 1:30 – 3:30 PM
NC Department of the Secretary of State
4701 Atlantic Avenue, Raleigh, NC 27604

Welcome/Introductions

In attendance were Paul Badr (chair), Rich Elkins, John Bridgers, Alice Wilson, Gary Thompson, Erin Lesh, Bob Coats, Silvia Terziotti, Tim Johnson, Ben Shelton, Dianne Enright, David Giordano, Camille Tyndall-Watson (phone), Stephen Dew (phone).

Minutes from the October 16th meeting were approved.

Framework+ Datasets

Orthoimagery

Ben Shelton gave an [update](#) on the Southern Piedmont and Mountains 2019 and Coastal 2020 projects. For the 2019 project there were five meetings December 2 – 4 where the imagery was delivered to 30 PSAPs. At the same time the imagery was released to NC OneMap. The imagery is also being sent to Esri for inclusion in the World Imagery Basemap.

The imagery delivered to PSAPs includes a seven-mile buffer around the county in TIF and SID format. If the buffer crosses the state border the imagery program works with the neighboring state to obtain its imagery for the buffer area.

There are five vendors on-board for the 2020 project. They are Quantum Spatial, Surdex, Sanborn, Atlas Geographic Data, and Spatial Data Consultants. The project area encompasses the 27 counties in the Coastal Plain.

True nadir orthoimagery will be collected for the cities of Greenville and Wilmington and also 18 major bridges in the project area. This is done by increasing the number of flight lines and the amount of overlap. Imagery collection will be coordinated with the military installations in the area – Harvey Point, USCG Base in Elizabeth City, USAF Dare County Bombing Range, USMC Camp Lejeune, USMC Cherry Point, and the Sunny Point US Army Ocean Terminal.

Imagery acquisition will run January – March 2020, with the imagery being produced between March – June. Imagery QC will run from June – October with the project deliverable scheduled for November, which is earlier than the last project.

Alice Wilson asked what deliverables the communities be getting from the 2020 project; the first time CIR will be collected. Ben said he is still researching what the final deliverables will be but will include SID true color, SID 3-band false color, and a single year web service containing all four bands in NC OneMap. Tim added that if Alice has any suggestions to let those be known.

Cadastral

John Bridgers [reported](#) that all 100 counties were updated in 2019. 2020 Q1 updates are already underway. A trend in the data is that there are some common attributes that are not consistently populated from county to county. They include Site Address, Parcel Use Description, Present Use Value, and Last Sale Date.

The collection status as of last week shows that three counties are current as of Q2 2019, 16 were updated in Q3 2019, 62 counties updated in Q4 2019, and 19 that were updated in Q1 2020. It is expected that not every county will have updates in every quarter as some counties only update their parcels twice per year.

Thus far in 2020 Q1, 19 counties have been updated. Beginning in February the project will reach out individually to counties asking them to transform their parcel data to the state standard.

Elevation

Gary Thompson filled in for Hope Morgan. LiDAR data for phases 1 – 5 have been collected and are available from the “clip-and-ship” download from the DPS Spatial Data Download [site](#). There are ten remaining counties that do not have contours created. DEMs are being used to create the contour lines for all the counties.

Areas west of Greensboro were collected at 30 points/m². A density of 8 points/m² will be publicly available. Contours should be ready for distribution in mid-2020. Building footprints will be updated with the new LiDAR data, as well.

Colleen Kiley, GIS Manager at NCEM, joined to the call to provide updates on contour line generation and building footprint updates.

Right now, 94 counties have been tiled for contours. About half of those need to be reviewed for possible skipped tiles. From there the contours will be quality checked and “sealed.” The desire is to have these done by this summer.

Statewide building footprints are being updated using LiDAR data. Pending a consistent funding source, it is a partial update – demolished buildings will be removed and new ones added.

Hydrography

David reported for Cam McNutt who was unable to attend. The Division of Water Resources (DWR) is evaluating a project to make corrections to database issues with NC names and to incorporate GNIS names. This dataset carries attributes from multiple Department of Environmental Quality agencies that are being moved to the ATLAS hydrography for use by the Department of Transportation in project planning. DWR also needs a mechanism to integrate new and changed GNIS names into the business databases.

Geodetic Control

Gary is developing issue papers concerning the 2022 reference datum change. The current one being written is for the legal profession. He will seek input from the NC Land Records Management Program.

Administrative/Governmental Units

County Boundaries:

Two more counties have been surveyed – Richmond and Montgomery. The NC Geodetic Survey is currently assisting 27 counties in surveying county boundaries.

Gary is planning to travel to Richmond to meet with Virginia staff concerning county boundary mapping between NC and VA border counties.

Municipal Boundaries:

Erin Lesh reported for John Farley and said that the 2019 Powell Bill boundaries have been released. Updates reflected in the release were based on changes from annexation reports delivered to NCDOT-GIS not through changes identified by the Powell Bill office, in comparing 2018 to 2019. This has been documented in the geospatial metadata.

John asked if any updates were submitted digitally. Erin responded yes, and that most of them were in PDF and not in the preferable shapefile format.

Bob Coats took the opportunity to brief the SMAC on US Census Bureau BAS – Boundary and Annexation Survey. Boundary changes are being tracked by the Census Bureau. Bob urged local governments to participate in BAS and the State Demographer’s survey.

He also briefly mentioned a new privacy protocol being rolled out by the Census Bureau called Differential Privacy. It will limit the amount of data that is released and will introduce a privacy coefficient or “noise” into the data as a way to protect citizen’s privacy. Users of the data will not know where or how much noise is introduced in the data, or which tables. In addition, the geographic level at which the data is available will change. Certain data available at the census block level previously may only be available to the county level, for instance. Bob will present this topic with more depth at the next GICC meeting. The Census Bureau is open to listening to what types of new data products users would like to see produced.

Transportation

Erin Lesh gave the road centerline update for John Farley. DOT will be releasing an update to the 2007 ISRN (Integrated Statewide Road Network), ISRN 2.0. It is different centerline geometry than people are accustomed to receiving from DOT. The release schedule is currently unknown. DOT is evaluating different technologies for data maintenance and conflation. The current thinking is that once NextGen911 road data is compiled statewide, the address ranges from it can be combined with DOTs centerline attribution and street names to build a product that people could use.

Addresses

Tim Johnson filled in for Anna Verrill. The AddressNC project will be rekindled this year to determine a course of action of how addresses from NextGen911 can be incorporated, and also evaluate the uses for address data above and beyond how they will be used the NextGen911 project. The AddressNC workgroup will be re-formed and will engage users that fall outside of the NextGen911 scope (e.g. Board of Elections). Anna and Tim hope to make good progress on developing the AddressNC project plan and engaging the local, state, and federal stakeholder communities by mid-April.

Working Groups

Hydrography Working Group

David Giordano filled in for Cam McNutt. The working group last met in November 2019 where the committee hard about updates to the ATLAS project including accuracy determinations based on survey points. The group

also was presented with draft scenarios of future options for NC hydrography by AECOM. The HWG will be spending a significant amount of its time in 2020 discussing these options and developing recommendations.

Orthoimagery and Elevation

Gary Thompson reported the committee met last Monday. The group received an update on the 2019 and 2020 imagery projects from Ben Shelton. Silvia Terziotti gave an update on the LiDAR status. John Lay, from NCDPS, also gave an update on the statewide contour generation. The group also discussed the 2022 reference frame.

NC Board on Geographic Names

David briefed the committee in lieu of Cam's absence. There were three names requiring SMAC approval. The name Richardson Creek was approved by the SMAC. It is a 4.3-mile unnamed tributary of Little Indian Creek in Lincoln County. The name Glass House Creek is proposed for a .3-mile stream in Orange County. The committee did not approve this name as it is limited in cultural significance and relevance to the community. Bakers Mountain Creek is the proposed name for a 3.7-mile long creek in Catawba County. The SMAC approved this name.

Working Group for Land Cover

Dr. Ken Taylor was not in attendance to give a report.

Working Group for Municipal Boundaries

John Bridgers reported that the Census Bureau has sent BAS (Boundary and Annexation Survey) to counties and municipalities. Local governments have until March 1st to submit the survey to the Census Bureau to ensure it will be included in population estimates and so the counties can verify the data in time for the 2020 Census. If submitted after March 1st the local governments will not be able to verify the boundaries.

Regarding Powell Bill municipal boundaries, NCDOT overlaid the Powell Bill data they maintain along with local government-submitted data and Census boundary data to identify locations where all the data do not match. From there it is DOT's hope that the local government will be able to reconcile the differences in the data to obtain a true, consistent boundary. The use of NextGen911 boundary data is also a possibility.

2022 Reference Frame

There will be new horizontal and vertical datums in 2022. Gary walked the committee through the possible replacements for the current reference frame. The recommendation to the SMAC is to approve the default parameters developed by NGS, which will not necessitate the need for exceptions. In the proposal, North Carolina would move from a two-parallel system to a single parallel system. A motion was made, and the SMAC approved the recommendation as Gary presented it. It will go for adoption before the GICC at their next meeting.

Regular Status Updates

National Geospatial Programs Office

Silvia Terziotti briefed the SMAC on the status of LiDAR collection in NC. It is a joint effort between USGS and NOAA. Acquisition began on March 15. Approximately 75% of the data has been collected for the acquisition area. The spatial reference system for the deliverable will be UTM Zone 17 and 18. Deliverables will be classified LAS, bare earth DEM, hydro/bridge breaklines, and intensity imagery. Supporting deliverables include supplemental and QC ground control, metadata, and final reports.

NC OneMap

With the new platform being ArcGIS Online, David is reaching out to data partners that have an ArcGIS Online presence to easily share their data with NC OneMap. The goal is to minimize data sharing by sending shapefiles to CGIA to host for them.

NextGen911

Tim Johnson filled in for Anna Verrill and Matt McLamb. There are 127 PSAPs in NC. Of those 101 have been onboarded. Seven PSAPs are i3 ready – Camden, Currituck, Pasquotank, Wake, Richmond, Alexander, and Mitchell.

Outreach continues to individual counties, groups and other states. February 5th is the next outreach meeting in Yadkin County.

Other Business

Gary quickly brought up the issue of US Survey vs. International feet. NC and 42 other states use the US Survey feet. In 1986 the NGS gave each state the choice to use either US Survey or International. NC Statutes say the state will use US Survey feet. NGS has changed their stance and now any product received from the federal government will be in international feet only.

Alice reported that Debbie Brannan from Cabarrus County is the new LGC Chair.

In-Meeting Task Review

Paul opened discussion on the FY19-20 work plan objectives. There are a few that are lagging. The SMAC needs to complete the plan to replace legacy LiDAR data and derivative web services with updated data on NC OneMap, including contours. As was reported today, good progress is being made toward this.

The Hydrography Working Group should strive to complete the definition of an approach and requirements for an enterprise surface waters dataset as soon as possible.

John Bridgers and Bob Coats should make progress on refining a solution for data sharing and comprehensive, efficient, and timely maintenance of a statewide representation of all municipal boundaries.

Hope and her team should research and clarify federal and local government public infrastructure data access policies (including utilities); business needs and risks; appropriate uses and disclaimers.

Adjourn