



North Carolina Geographic Information Coordinating Council

Minutes

November 7, 2018

PRESENT

Alex Rankin (Chair), Steve Averett, Paul Badr, Kathryn Clifton, Jason Clodfelter, Bob Coats (for Nels Roseland), John Correllus, Greg Cox, John Cox, Seth Dearmin, John Dorman, Dianne Enright, John Farley, Kristian Forslin, John Gillis, Chloe Gossage, Dean Grantham (for Michael Pjetraj), Joanne Halls, Pokey Harris, Jason Hedley, Matt Helms, Bliss Kite, Sarah Koonts, Scott Lokken, Dan Madding, Elaine Marshall, Chris Nida, Allan Sandoval, Frank Sculetta (for Wesley Beddard) and Ron York

Staff: Tim Johnson, CGIA

ABSENT

David Baker, Stan Duncan, Debbie Joyner, Tony Simpson, and Lee Worsley

PROCEEDINGS

A meeting of the Geographic Information Coordinating Council was held in Training Room 240 of the Albemarle Building in Raleigh, North Carolina.

Welcome and Chair Announcements

Alex Rankin, Chair, called the meeting to order and welcomed Council members and visitors.

He gave two updates on Council membership:

- Jason Hedley is now a project manager with So-Deep | SAM-NC. He will continue his term as a Council member appointed by Governor Cooper.
- Marc Burris has taken a position with the NC Department of Public Safety and will go off the Council as an advisory member.

Mr. Rankin recognized Jessica Middlebrooks, the new Deputy General Counsel for CGIA and the GICC. Anna Szamosi who has been working with the GICC is taking on other DIT responsibilities.

Approval of Minutes

The minutes of the August 8, 2018 meeting were approved for adoption with no changes.

Technical Presentations

Mr. Rankin called on Council members and guests to speak for 10 minutes each about Hurricane Florence response and recovery – highlights of the roles and value of geospatial data and analysis and mapping, and lessons learned. The purpose was to help the Council understand how we are using local and state investments in GIS and how we might improve in preparation for the next event.

1. Local Government GIS

City of Wilmington

Mr. Rankin welcomed Richard Tuinstra, Senior GIS Manager with the City of Wilmington. He emphasized the severe flooding impact from very heavy rain, and flooding outside of floodplains, hitting many residents who did not have flood insurance. Florence was a Category 1 storm when it hit Wrightsville Beach on September 14. Storm surge was substantial at 6 feet, but not as damaging as it could have been. Wilmington City Hall closed for 13 days and schools were closed for four weeks.

Regarding GIS, there was coordination between the City of Wilmington and New Hanover County to prepare data in the days preceding the event. GIS was applied via websites to inform citizens of shelter locations and directions, and to display real time weather and traffic (from NC DOT). During the storm, Web EOC software did not integrate well with ArcGIS, but IT infrastructure stayed up and running. Slow performance of servers when busiest will lead to City review of potential for server capacity improvements. Mr. Tuinstra took advantage of dashboard software to keep officials informed. Data collected in the field after the storm were useful, complicated by cell service that was interrupted for a week. The quantity of debris is daunting and costly for recovery efforts. Estimated cost of debris removal is between 20 and 30 million dollars, compared to \$1.1 after Hurricane Matthew. Communication with citizens has been achieved mostly by web applications.

Among lessons learned, Mr. Tuinstra observed that the City of Wilmington needs to improve communication with citizens and improve coordination and data sharing between city and county operations. A plan for GIS and communication in the event of the IT infrastructure going down is needed as well.

Local Government Committee

Mr. Rankin called on Jason Clodfelter, GIS Analyst with MapForsyth and Chair of the Local Government Committee. Mr. Clodfelter explained that Forsyth County and the City of Winston-Salem prepared for Hurricane Florence, but they were spared from significant damage. Local governments in eastern North Carolina suffered heavy impacts. He reached out to some of the GIS coordinators including Mr. Tuinstra and received letters from Alice Wilson of the City of New Bern, Patricia Pike of Onslow County, and Josh Norwood of Pender County, describing how they used GIS to assist in response efforts and lessons learned. Mr. Clodfelter commented that he learned from his outreach that *NC OneMap* is a valuable entity for statewide data. He learned that collaboration and communication are essential between all levels of government as well as collaboration with private organizations for software and expertise.

City of New Bern

Ms. Wilson traveled to Raleigh today to report briefly in person. Alice Wilson expressed her support for all efforts related to Hurricane Florence. She noted that experience with Hurricane Matthew in 2016 was a blessing in that it informed preparation for the more severe Hurricane Florence. In New Bern, one-third of all buildings were flooded. Despite a mandatory evacuation, Emergency Operations Center (EOC) staff busy answering calls from stranded residents who did need rescue. The stream gage at the Trent River was invaluable for informing the EOC for current conditions and scenarios through the Flood Inundation Mapping and Alert Network. Statewide geospatial datasets were invaluable for water rescue teams in areas inside and outside of Craven County. Ms. Wilson was able to help water rescue teams find higher-elevation paths to stranded residents in towns across the county boundaries where they had not worked before. Building footprints and elevation contours were especially valuable.

She expressed gratitude to statewide data providers and emphasized that “statewide data saved lives.” She expressed pride in the local government workers and in all the GICC volunteers in the various committees and working groups. The City also applied mobile tools to assess citywide damage within five days, covering 221 commercial buildings and nearly 2,000 residential buildings. The City is also applying geospatial data in planning to mitigate future storm damage.

Pender County

Mr. Norwood also traveled to Raleigh to share his experience. He reported that Pender County experienced heavy damage, much worse than the impact of Hurricane Matthew. Flooding extended beyond floodplains. His GIS-based estimates of building damage exceeded \$600 million. Housing for thousands of displaced residents is a major problem.

During the event the rural parts of the county had limited cell phone coverage and Internet access, meaning that communication with residents was very difficult before, during and after the event. Social media are ineffective without connections.

Hundreds of maps and web maps were created for various missions. Mr. Norwood used statewide data from *NC OneMap* for work in adjoining counties and expressed gratitude for the statewide resources. Damage assessments were done digitally for the first time. He expressed appreciation for the services of Atlas Geographic Data, Inc. of Wilmington in support of GIS applications as well as Highland Mapping Inc. of Banner Elk for its regular assistance. Esri’s Collector software for data in the field and a dashboard for the EOC were effective tools. He also described the value of a “strike team” organized by the NC Local Government Information Systems Association (NCLGISA) to supplement the county’s GIS capacity in the EOC. He thanked Sarah Wray from NCDOT GIS, Sally Vaughn from Person County, Columbus Hawks from Rowan County, and Chris Contreras from the City of Jacksonville who all made great volunteer contributions to the efforts.

Mr. Norwood emphasized the value of cross-training in response to a disaster when, for example, timely ability to use tools like mobile devices is so valuable. He learned that plans need to be changed when, for example, half of Pender County employees could not get to work because of flooded roads. He learned that in engaging outside resources, a mission needs to be clear to take advantage of volunteers. Being organized is essential, and planning for the worst is recommended. In addition to the extra demands for timely GIS products and long hours at work in the EOC, extensive time away from home can be very hard on entire families.

2. *State Government GIS*

Department of Public Safety

Mr. Rankin asked Council member John Dorman, Assistant Director, NC Emergency Management (NCEM), to offer the first of five perspectives from state government agencies. Mr. Dorman emphasized that Hurricane Florence brought even more damage to North Carolina than Hurricane Matthew two years ago. Plus, the path of the storm from eastern to western parts of the state challenged response capacity. In addition, a major equestrian event was in progress in Mill Spring, NC that started on September 11. Fortunately, the state received help from 36 other states under an emergency management compact.

Mr. Dorman explained the framework of GIS data, analysis, queries, and reports including SQL Server and ArcGIS software. Numerous applications include the Flood Inundation Mapping and Alert Network (FIMAN) for probabilistic and deterministic analyses of flooding and damage in the vicinity of stream gages. Datasets include elevation, building footprints, first floor elevation, and flood hazard areas. As an advisory is received, applications calculate the financial impact on properties by type. Within 30 minutes of an advisory, calculations were available to inform the Governor. The calculated impact of Hurricane Florence from wind, storm surge, and riverine flooding was \$3.55 billion. Residential properties damaged were estimated at 79,800. Of those properties, 35,700 had been damaged by Hurricane Matthew. The estimates support requests for federal financial assistance through the Federal Emergency Management Agency (FEMA) and US Department of Housing and Urban Development (HUD).

Mr. Dorman described maps of impacts by county. Wind impact is estimated by damage models. Storm surge caused \$2.2 billion in damage affecting 35,000 properties. From stream gages, models identified 500-year-plus riverine events—flooding beyond 500-year flood hazard areas. Impacts from Hurricanes Matthew and Florence varied from gage to gage. Riverine flooding caused \$1.24 billion in damage affecting 44,000 properties.

Mr. Dorman explained that NCEM developed and maintains an internal ArcGIS Online Portal for displaying 911 hot spots based on calls received by 911 communications centers, VIPER towers and their operational status, targets for search and rescue and/or damage assessment teams, and citizen assistance requests. Data on building footprints were used in analysis of flood damaged buildings by occupancy type and value. A dam inundation system is used to help make decisions as well.

He explained that getting a federal disaster declaration in a timely way begins the flow of assistance from FEMA. For Hurricane Matthew, a declaration came nine days after the event. For Hurricane Florence, a declaration for 18 counties was made within 24 hours. FEMA trusted the North Carolina data after previous experience and understanding of methods of estimating damage. Given the flooding outside of defined floodplains, he recommends buying flood insurance. He added that of the 302,000 people in floodplains, only about one-third buy flood insurance. NC Emergency Management has an economist who estimated the total economic loss to be on the order of \$5.29 billion.

For public facing applications, Mr. Dorman commented that FIMAN was used heavily (59.1 million hits) and there were 255,000,000 hits on the NC Flood Risk Information System website.

He commented that NCLGISA did a fantastic job with its GIS Strike Team in support of communities and counties. In terms of other resources, it was difficult to determine which roads were

flooded in current situations. Future work with NC DOT will look at ways to apply stream gage data and modeling to road inundation. He concluded that the overarching use of GIS in emergency management is essential.

Department of Agriculture and Consumer Services

Next, Mr. Rankin called on Council member Dan Madding to share his experience as ISS Director of Emergency Programs, NC Department of Agriculture and Consumer Services. The department includes the NC Forest Service as part of an incident management team. Before a storm hits, Mr. Madding checks rainfall predictions by location from the National Weather Service and compares expected rainfall to locations of agricultural industry partners including swine farms and the poultry operations. Proximity of facilities to flood hazard areas is part of the mapping and analysis. The results can point to evacuation of animals in vulnerable locations.

The department's Division of Emergency Programs serves as a liaison to the NCEM where transportation issues such as waivers for truck weights are important to timely evacuation of animals. Mr. Madding's group also works with NC Department of Environmental Quality (DEQ) on a host of issues related to the agricultural industry and the environment, including potential flooding of swine lagoons. Mr. Madding's group also coordinates involvement of national groups such as the American Society for the Prevention of Cruelty to Animals (ASPCA) to assist with pet friendly shelters.

NC Department of Agriculture and Consumer Services is also responsible for inspection of food processing. Ahead of the storm, the department predicts which facilities are likely to be affected. After the storm, the department overlays US Army Corps of Engineers data on actual flooding with the regulated food processing facilities to prioritize post-storm inspections.

Mr. Madding explained that North Carolina had significant crop damage from flooding. Harvesting ahead of a storm can work for some crops, but not for others such as tobacco. There were also significant losses in the forestry industry from wind-damaged trees.

Regarding access to flood inundation data from FIMAN, Mr. Madding took advantage of an API (application program interface) to create a wall map daily to keep people in his department informed about stream gage readings and flood extents. Looking at actual flooding from Florence, he reported that of the agricultural facilities flooded, 75 percent of the swine farms and 70 percent of the poultry farms were not located in a floodplain. He recommended planning for major flooding events that have been increasing in frequency and intensity.

He emphasized that getting to swine facilities, including swine food deliveries, was a problem given inundated roads. Part of the challenge was routing vehicles under changing conditions, with risk of being stranded by new road closures after getting to a facility.

Mr. Madding added a human-interest story about a stranded dog to highlight the role of social media in response to problems. Well-meaning people respond to social media by self-deploying and this is now part of disaster response. He recommended figuring out how to influence the self-deployers to avoid even more rescues as conditions change. He closed by emphasizing that incident management relies on geospatial data and technology, and he observed that GIS was applied more effectively than two years ago in response to Hurricane Matthew.

Department of Transportation

Mr. Rankin called on John Farley, GIS Manager for NC DIT/Transportation, and Chair of the State Government GIS Users Committee. He explained the overall goal to “get as much verified information as possible, to as many officials as possible, as soon as possible.” This is the first event for which the NC Department of Transportation (NCDOT) took full advantage of geospatial data and analysis. In years past, GIS work was minimal, limited to assisting in damage assessments after the fact. This time the GIS Unit was engaged before, during and after the event. New technology included integration of unmanned aircraft systems (UAS) and application of new hydrologic models. From a transportation perspective, 2,400 roads were closed at one time or another, with a peak of 1,860 closures. Mr. Farley displayed a timeline for September 10 to 19 that included field data collection software accounts; mapping of facilities, UAS locations, shelters, and fuel depots; and UAS imagery publication. He noted that GIS servers were stressed from September 16 to October 11.

Deploying UAS for data collection was new for the department. Fourteen UAS teams collected over 3,200 images and videos. The GIS Unit looked at the raw images and used the information for getting vehicles to desired locations. In the future, Mr. Farley would like to prepare to extract information from images captured by UAS.

The GIS Unit, involved in its first storm event, geared up quickly to create a series of maps to support response and recovery, some for internal viewing and others for the public. A map viewer for tracking NCDOT assets expanded to locations for highway crews and many other items that were useful for briefings but would have been suitable for more than one map viewer. A weather event information map had usage peaks of over 3,000 items per day and a total of over 26,000.

The GIS Unit developed storm applications in two days for UAS imagery and videos, UAS mission assignments by the Secretary of Transportation, a map viewer for pipe inventory-assessment-replacement with a mobile component, integration of GIS and the NCDOT Traffic Information Management System (TIMS), mobile damage assessment, and mobile debris removal. Using mobile devices in damage assessments and debris removal got results much more quickly than paper solutions used in past events. In a successful example of communication, the GIS Unit was on a FEMA geospatial conference call and learned about and received a mobile app from Louisiana DOT for debris removal.

The GIS Unit will document lessons learned in an After-Action Report. Recommendations include having a state daily geospatial call, patterned on the FEMA daily call, to keep informed about data sources, maps and applications. Mr. Farley commented on the value of the NCLGISA IT Strike Team and recommended that the GIS community do more by organizing state agency GIS staff as potential resources for assistance. He suggested that agencies make paid staff time available, not relying on volunteers on their own time. In addition, local government GIS staff may benefit by having a state contact to provide access to state GIS resources such as staff with specific skills and experience to help overcome obstacles to local GIS mapping, analysis and applications. Mr. Farley acknowledged valuable assistance by Esri, including additional cloud resources and software advice.

Department of Environmental Quality

Next, Mr. Rankin welcomed Dean Grantham, NC Department of Environmental Quality (DEQ), Division of Waste Management IT. Mr. Grantham explained that DEQ is responsible for incident management during a major storm event, spread across many divisions and programs. Incidents may relate to permittees from confined animal feeding operations to underground storage tanks to

superfund sites to hazardous waste generators. Information technology systems tend to communicate well within divisions but not as well across the whole department and across regions.

DEQ developed applications for a centralized tracking system capable of storing, sharing and summarizing information about the incidents. A challenge was to bring together state and federal geospatial data—including flood zones, predicted flooding, and storm surge—in a framework for storing, sharing, and summarizing incident information. It was essential to capture the locations of incidents to enable visual communication. The department needed a dynamic system to generate timely information for upper management in support of storm response decisions and conditions changed. Incidents needed to be prioritized for response.

Mr. Grantham described the “storm tracker” tool that displayed DEQ-permitted facilities and storm related geographic information. The tool included feeds from National Oceanic and Atmospheric Administration (NOAA) including storm path, precipitation models and estimates, and hydrologic models as well as data after the storm including images from the Civil Air Patrol over flooded areas and post-storm imagery from NOAA. Using ArcGIS Online as a platform for applications provided a simple tool for non-GIS regional staff to use. Survey 1,2,3 software provided an easy tool for data entry about facility status and pictures that fed into GIS. Another component was an incident editing application to tag information as conditions changed. A third application was an incident tracking dashboard to display active incidents and related information that was readily understandable by non-GIS staff and upper management. The tools were used heavily during September 15-October 30. For example, the incident tracker had more than 5.7 million “requests” as users viewed the information. Staff did not see any degradation of server performance during that time.

Mr. Grantham summarized the “pros” of the incident management system: it was extremely easy to use through a browser, upper management was able to access information they needed, and it was easy to share data and data entry with outside agencies (e.g., US EPA, the Coast Guard and the NC Wildlife Resources Commission) for direct consumption of DEQ data and vice versa. The system not only tracked incidents, but it aided in tracking DEQ’s response work on sites that qualify to help meet EPA match requirements for grants. Regional staff outside of the impact areas were able to log in and assist other regions in need.

The “cons” of the system: it did not meet all needs for all divisions/programs, and not all divisions/programs were able to implement due to lack of preparation time. There was not a means for getting new data into the various backend information systems. The goal is better communication without duplicate data entry in multiple systems.

Among lessons learned, the DEQ staff working on the system need input from all divisions/programs to build a better system for the future. The goal is to build the system and conduct training before the next storm event to make the system more valuable. Mr. Grantham acknowledged his co-creators of the incident management system: Amy Axon of the Division of Waste Management and Cam McNutt of the Division of Water Resources.

Office of State Budget and Management

Mr. Rankin recognized the Office of State Budget and Management (OSBM) and its role in hurricane recovery and called on Bob Coats, the Governor’s Census Liaison, to describe some of the efforts. Mr. Coats pointed out the OSBM’s Hurricane Florence Recovery [webpage](#) for documents and information presented to the General Assembly. A lesson learned from Hurricane Matthew is that

damage estimates need to be produced in a very timely way in support of disaster recovery. In response to Hurricane Florence that hit on September 14, OSBM prepared an assessment and presented it to the General Assembly on October 10.

Information from GIS analysts was integrated in the reporting. In decision making, the appetite for data has grown and the expectations for geospatial data to answer questions quickly have increased. It was eye opening for OSBM to see how GIS could be applied to help answer questions. Mr. Coats acknowledged Jeff Brown and David Giordano of CGIA for timely assistance, using the best available geospatial information at the time. The State Budget Director commented to OSBM that the way data were used and presented were effective in support of disaster assistance approved by the General Assembly.

Looking ahead, OSBM would like to see more nimble systems to deal with a changing set of declared counties, to take more advantage of open data and APIs, and to revise economic estimates more quickly. Easy discovery of the best available geospatial data, knowing what is best to use, is valuable. There may be opportunities for the GICC and NC OneMap regarding resources for emergency response and helping partners know what is available. He acknowledged GIS efforts across the state and concluded that the skill and expertise of public servants paid off during the response and recovery.

Mr. Coats introduced Ed McLenaghan, an Economic Analyst with OSBM. Mr. McLenaghan appreciated state agencies for supplying data in support of a comprehensive damage and needs assessment that the State Budget Director presented to the General Assembly. The assessment relied on a wide range of data from state agencies in a short time. Results included a \$1 billion Community Development Block Grant Disaster Recovery (CDBG-DR) allocation to North Carolina less than a month after Hurricane Florence hit the state, and a down payment by the General Assembly of \$850 million for disaster recovery. The timeliness of state agency responses made a huge difference and will continue to be valuable in longer term recovery efforts.

3. Questions and Comments

In a brief question and answer period, Joanne Halls, as a Wilmington resident, expressed appreciation for all the response and recovery efforts. She noticed one glaring data gap – the stream gage data, as fine as it is where it exists, is not a comprehensive network. This limits the geographic extents to which stream gage readings can be applied to predictive models and to response based on the data. Mr. Tuinstra agreed that stream gage data and the ability to model potential flooding near gages were valuable. He observed that more stream gage locations in Wilmington would have helped in planning and response.

In response to a question from Amy Axon of the Department of Environmental Quality, Mr. Farley replied that imagery captured by UAS by NCDOT is not available to the public, but he will inquire about access.

Pokey Harris, Executive Director of the NC 911 Board, thanked Mr. Farley for assistance in response efforts. She learned that she should ask for analysis of storm impacts on local 911 centers early in an event. Some 911 centers were flooded, resulting in some 911 calls being re-routed to open centers. Earlier analysis and mapping would inform 911 centers about potential impacts and inform the statewide interoperability coordinator. She noted the value of a wall map, but next time it would be

better to have an electronic version of a map with locations of 911 centers and their status. She added she was grateful that through the event no 911 calls went unanswered.

Technical presentation files and letters are available on the webpage for this [meeting](#).

Committee Reports

Statewide Mapping Advisory Committee (SMAC). Paul Badr, SMAC Chair, reported that the committee and its many related working groups are active and making progress.

- Many of the SMAC members were engaged in response and recovery efforts related to Hurricane Florence which set back timetables for some of the SMAC tasks. However, SMAC has made good progress since the August GICC meeting.
- The 2022 Reference Frame and implications for state plane coordinates continue to be discussed by the working group chaired by Gary Thompson.
- Project Manager Ben Shelton reports that Statewide Orthoimagery is on schedule for delivery of 2018 imagery in December, and preparation for acquisition of 2019 imagery is proceeding on schedule.
- Project Manager Hope Morgan expects LiDAR data quality review for Phase 5 of 5 to be completed by the end of the year. A series of issue papers on LiDAR will be released soon as well.
- The Working Group for Orthoimagery and Elevation, chaired by Gary Thompson, will identify lessons learned from imagery acquisition by many parties in response to Hurricane Florence.
- The Working Group for Municipal Boundaries, co-chaired by Bob Coats and John Bridgers, is developing recommendations to make maintenance of statewide municipal boundaries more complete, consistent, timely, and efficient. The approach is to test a new data flow with selected jurisdictions, and to rely on guidance and promotion to achieve improvements before recommending changes in rules or statutes.
- The Working Group for Land Cover, chaired by Kenneth Taylor, will do more analysis of business needs for land cover data and do research on land cover products that would be most valuable to users.
- The Hydrography Working Group, chaired by Cam McNutt, continues to collaborate with NCDOT's Advanced Transportation through Linkages, Automation and Screening (ATLAS) project. The group will evaluate data produced by the ATLAS project in the context of statewide hydrography and present data to SMAC. Also, the group will consider stewardship opportunities with the National Hydrography Dataset.
- Regarding statewide parcel data, the *NC Parcels* project team and county GIS coordinators refreshed parcel data in the statewide collection in many counties in the days before Hurricane Florence. Many eastern counties have been heavily occupied with storm recovery, delaying some of the fall updates.
- SMAC continues to give attention to statewide datasets that are required for implementation of Next Generation 911.
- SMAC approved its Work Plan for 2018-2019, with emphasis on GICC priority tasks.

Local Government Committee (LGC). Jason Clodfelter, LGC Chair, reported that the committee met on August 22, 2018 and covered several main topics. First, the FY2018-19 LGC Work Plan includes

tasks identified by Management and Operations Committee related to GICC elements of strategic direction:

- Promote free and open discovery of and access to geospatial data created and maintained by local governments
- Identify opportunities to collaborate on geospatial data and technical solutions on a regional basis, engaging councils of governments
- Identify jurisdictions in need, priority business needs and data needs and practical ways to assist

As always, LGC members are encouraged to engage their professional organizations in outreach and solutions.

The committee began work on the topic of access to utility data. LGC agreed to produce a survey which will be sent to local jurisdictions to document and provide SMAC and the GICC with the following information:

- Jurisdictions that own/operate utilities—water, sewer and electric in particular
- Public access to local government utility/infrastructure geospatial data
- Local data distribution policies and/or non-disclosure agreements (and copies)

Members designed the survey and it has been approved by LGC for dissemination starting tomorrow to local government GIS contacts and members of the American Public Works Association. LGC will compile the findings, share information with the SMAC, and report to the Council.

LGC is willing to assist as needed in the NextGen911 project. Also, LGC is maintaining and promoting the Story Map of the Value of GIS in NC – “Are You on the Map?” and sent a notice to NC GIS Listserv on October 16, inviting participation across the state. Also, local government GIS staff will be participating in GIS Day next Wednesday across the state.

The next LGC meeting is scheduled for November 28.

State Government GIS Users Committee (SGUC). John Farley, SGUC Chair, reported that the committee and DIT reached agreement with Esri for a one-year extension of the Enterprise License Agreement for GIS software. There are pending issues to resolve for the next multi-year agreement. Study of the new Esri licensing model will help the State right-size the next agreement.

Federal Interagency Committee (FIC). Scott Lokken, FIC Chair, reported that Doug Newcomb and Silvia Terziotti have rejoined the Executive Committee to guide the FIC. In recent developments, Doug Newcomb has completed a tree canopy height dataset based on LiDAR elevation data. Also, the USGS 3D-Nation requirements and benefits study is entering the validation stage. A state summary report is pending, to be followed by a workshop in North Carolina for survey respondents. Mr. Lokken noted that federal agencies were heavily involved in hurricane response. His agency, NOAA, acquired and published oblique imagery over the coast as well as selected inland flooded areas. USGS was very active in getting stream gages back online and capturing high water marks. US Army Corps of Engineers and other agencies were active as well. Regarding the National Geodetic Survey (NGS), the issue of state plane coordinates and the 2022 Reference Frame has been analyzed. He added that the NGS is hosting a Geospatial Summit May 6-7 in Silver Spring, MD that will include online access as well.

Mr. Dorman commented that the change in the current datum to the 2022 Reference Frame will touch all geospatial data. He recommended that the Council hear reports on implications of the change. John Farley seconded the recommendation and Mr. Rankin agreed to consider that soon.

GIS Technical Advisory Committee (TAC). Dan Madding, TAC Chair, reported that an effort to look into GIS as applied to Smart Cities initiatives will begin and he invited Council members to participate.

Management and Operations Committee (M&O). Mr. Rankin reported that the committee met on October 22. As advised by Mr. Dorman at the August Council meeting, the Management and Operations Committee reviewed tasking related to strategic elements for the Council and concluded there are five priority tasks:

1. Municipal boundaries – establish a data flow for timely maintenance of geospatial boundaries – important for many purposes including Census 2020
2. Public access to infrastructure data – identify policies, risks, costs and solutions; local government data tend to be restricted; the goal is to find ways to increase benefits to local governments and data consumers
3. Streams – develop a higher quality statewide dataset for surface waters
4. Data sharing local-to-state in the context of NextGen911 – including data for roads and address points
5. NC OneMap – make more priority data discoverable and accessible through the portal; Mr. Rankin emphasized Alice Wilson’s comment that “statewide datasets save lives” to underscore the value

The M&O Committee continues to monitor the Working Group for Professional Land Surveying and GIS. The Working Group has been on recess, but Tim Johnson will reach out to NC Board of Examiners for Engineers and Surveyors (NCBEES) to pull together documentation of findings for distribution to the Group.

NC GIS Conference 2019

Mr. Johnson reported that registration for the 2019 NC GIS Conference opened yesterday. The event will be held February 26 through March 1, 2019 in Winston-Salem at the Benton Convention Center. The program committee is working hard on the program. He invited speakers from today to share insights at the conference that everybody needs to hear. The Herb Stout Student Award notices went out to universities, and the Herb Stout Local Government Award announcement will be issued this month.

GICC Member Announcements

Secretary Marshall announced that her office certifies property mappers. She congratulated the senior property mapper with the highest score on the exam this year, who happened to be sitting next to the Secretary—Council member Kathryn Clifton of Davidson County.

ADJOURNMENT

There being no other business, the Chair adjourned the meeting at 3:00 PM.

Dates and locations for Council meetings in 2019:

February 13, Triangle J Council of Governments, Research Triangle Park

May 8, Albemarle Building, Department of Insurance

August 14, Albemarle Building, Department of Insurance

November 6, location to be determined

Presentations and reports for this [meeting](#) are on the Council [website](#).