

Geographic Information Coordinating Council
NC ONEMAP GOVERNANCE COMMITTEE

September 16, 2013
2:00 to 3:00 PM
OITS

MINUTES

Attending: Stan Duncan, Dee Hill (Henderson County), Bob Brinson, Ryan Draughn, Kathryn Clifton, Linda Rimer, Tim Johnson, Jeff Brown, David Giordano, Brett Spivey

Absent: John Farley, Sarah Porper, Colleen Sharpe

Action item from today's meeting:

- *Bob and Tim will discuss accessibility of elevation and building footprints datasets from NCDPS.*

1. Approval of Minutes of August 19th Meeting [Stan] – approved as submitted.

2. Current Status of NC OneMap Program [Brett, David]

a. Operational Status: Servers, Connections, Data Releases

Data releases since the last meeting: Biodiversity/Wildlife Habitat Assessment (DENR, Natural Heritage Program) and WRC Gamelands (Wildlife Resources Commission).

With regard to Natural Heritage Program, Linda asked if recent budget cuts to the trust fund for the program has had an impact on management and provision of geospatial data. David and Jeff will inquire at the DENR GeoTeam meeting on September 17.

b. Relevant Usage Statistics

Since the last meeting, hits on NC OneMap web services averaged around 100,000 per day and reached about 1,000,000 per week in August. Performance of the web services since the last meeting has measured less than one-half second (the target is under two seconds). Performance averaged 0.75 seconds since May when services switched to upgraded software at the Western Data Center (WDC). David explained that the statistics represent all users, real (person) users and bots; they are not distinguished.

3. Review of Goals and Priorities [Brett, David]

a. Completed Enhancements to NC OneMap

Brett pointed out that the simple map viewer on the nc.gov website will include the NC OneMap logo (or a text label/hyperlink to NC OneMap on mobile devices—website is responsive to the device). The data disclaimer item is still pending. Sarah had planned to discuss this with Lois.

b. Planned Enhancements (next 90 days)

- Complete infrastructure build at Eastern Data Center (EDC); the timetable is uncertain; hard drives from WDC are expected soon; we are within weeks of completion (no hardware acquisition is required).
- Redesign NC OneMap websites (independent of the EDC)
- Data Updates

4. NC OneMap Data and Services [Jeff]

Jeff presented a brief context for the status of data and services in the NC OneMap Geospatial Portal. [The presentation and a table of the Council's priority datasets will be distributed and posted with the minutes.]

He described factors in data quality, accessibility, and application. Regarding data status, he pointed out successful, missing, and vintage datasets. Achieving quality goals requires filling in more of the missing pieces and updating datasets.

Successful examples of content for NC OneMap include (1) Statewide Orthoimagery for which the Council developed a business plan and was prepared for the emergence of a champion or client (NC 911 Board in this case), and data access and applications were accomplished; and (2) Roads for which a working group developed a plan, obtained grant funding, completed a tool that has been adopted by NCDOT and applied the results to integration of statewide roads.

How current are datasets in the NC OneMap Geospatial Portal? Of 60 datasets for the Council's 32 priority themes, 46 have a date of their last update (do not have varying dates for portions of a collection) and of those, 33 are dated 2011-2013 (i.e., relatively current) and 13 are older than 2011 (i.e., aging). Some datasets were one-time studies. For example, the National Hurricane Center has developed tools and datasets that have eliminated the need for a static update to the hurricane storm surge inundation areas mapped in 1999 (the oldest dataset on the list).

The NC OneMap team explained that update cycles vary by dataset. The frequency of update is quarterly for Natural Heritage Program datasets, but many datasets are updated annually. Monthly updates are rare. The concept is to have current data to give users confidence that they can discover current data (and metadata that includes frequency of update) on NC OneMap. The table of priority datasets is not exhaustive of what is in NC OneMap.

Discussion points that emerged from the committee:

- Data currency is a portfolio management problem, and a tool like a dashboard that displays information about currency (red, yellow, green) would highlight status.
- The upcoming review of GIS applications is expected to include information about what datasets are applied where. A cross-reference between applications and datasets would help tell a story about an operational tool that relies on geospatial data quality (including currency) and benefits a range of users.
- From a policy perspective, if data producers are required to populate NC OneMap (official distribution point) with the best available data (and regular data sharing is enforced) and this is well known, then a data consumer would not spend time checking with data sources to verify that datasets of interest accessible through NC OneMap are the most current, complete data available. This saves time for data consumers and producers.
- Governmental sites that offer old data will lose interest and clients. Once users determine the site for the most current data, they will go there.

- Concerning funding cuts to state agencies, NC OneMap should be interested in data streams from programs that may need to cut back on data maintenance or provision, and look for alternative ways to get comparable data.
- Supporting datasets requires enforced policies and money, but not big dollars in many cases. Maintenance is essential.

Concerning availability, of the 60 datasets for the 32 priority themes, 50 are available as downloadable data and/or a web service. Jeff described missing priority datasets and their status:

- Roads – under development, expected in 2014
- Parcels – under development in the EPA Parcels project
- Elevation (LIDAR) – web service not available (tiles are downloadable from Floodplain Mapping Program). Discussion followed. Alternatives (National Elevation Dataset, Pictometry derivatives) are not equivalent. NC has a good reputation for having statewide LIDAR, but this is not accessible through NC OneMap. There are clearly consumers of elevation who would benefit (including economic development purposes and agriculture).
 - Brett shared two anecdotes. (1) Ridge lines (derived from elevation data) are related to county boundaries would be valuable in ongoing work as explained by Pam Carver (Henderson County) and Tom Morgan (Secretary of State's Office); Stan added that efforts to revise the state boundary will benefit from ridge lines too. (2) A civil engineer is consuming imagery and contours now and is grateful to not have to bounce between source agencies (Floodplain Mapping and NCDOT) and explained that web services are making him a better engineer and saving money for his clients.
- Building footprints – data and service not available (managed by the Floodplain Mapping Program); CGIA has requested a copy and/or services more than once, but no reply.

The committee concluded that to be a consumer-driven service, NC OneMap needs to obtain priority missing pieces. Other priority datasets that are missing:

- Emergency Service Zones (important in Next Generation 911)
 - Fire districts
 - EMS districts
 - Law enforcement service areas
- Land use (very difficult to identify from local datasets)
- ETJ (boundaries still exist)
- Historic districts and buildings (Department of Cultural Resources); Stan cautioned to distinguish various designations.

Concerning age of priority datasets, those that need to be updated:

- With a custodian (all are in process)
 - DENR – NPDES, water supply watersheds, surface water intakes, etc.
 - Railroads (NCDOT)
 - Educational institutions (CGIA and Department of Administration)
 - Hospital and medical (DHHS)
 - Master address database (situs addresses, CGIA); Stan noted that he obtained some files from Ed Crane of Esri that may be useful in solving address problems.

- With a custodian (an update is not in process)
 - Water and sewer infrastructure (formerly the NC Rural Center); having the services areas (polygons) up to date would be valuable; there have been some perceived security issues about displaying locations of water supply facilities/equipment. For related infrastructure, Ryan recommended checking with NC Department of Commerce about broadband data.
- Without a custodian for maintenance
 - Homeland Security Infrastructure (one-time datasets from a federal contractor)
 - Law enforcement
 - Fire stations
 - EMS facility locations
 - PSAP areas

Stan and Ryan advised that there are potentially local sources for each of these. Jeff has reached out to State Government GIS User Committee looking for custodians, with no volunteers. These local datasets would have fewer records and fewer attributes than roads or parcels and have potential for an approach to integrate local sources.

Jeff described participation factors relating to sharing data in the Geospatial Portal. The most common approach is a hybrid of centralized and distributed data and services. CGIA develops and manages selected statewide data (enterprise data, e.g., imagery); state agencies transfer data to NC OneMap Database for discovery, download and web services (centralized); and agencies offer data download and web services from their servers (distributed).

There are two primary data sharing options for state agencies: (1) transfer copies of datasets to NC OneMap Database; CGIA creates web services, serves downloadable data, and applies the NC OneMap Data Retention Schedule; and (2) state agency serves downloadable data and web services and works with CGIA to make them discoverable through the Geospatial Portal.

Concerning data produced by local governments, many of the NC OneMap priority datasets originate as local authoritative data. The current approach is for a local government to serve its own data and share source data with one or more state agencies. Those agencies integrate a collection to a standard set (e.g., roads, parcels, addresses) and serve a statewide compilation.

Local web services are not currently accessible through the Geospatial Portal. To achieve that accessibility, a local government would need to publish a service (involving a capabilities file), furnish metadata for (word search) discovery, and maintain the service/server. CGIA worked with local data producers before 2010 to enable access to local web services via NC OneMap. The results were scattered with a source participation of less than 30 percent of counties; a significant technical assistance effort by CGIA; and frequent server issues that interrupted live services. There were other issues related to symbolization of web map services at the time.

Jeff outlined a strategy for expanding and updating the content of the Geospatial Portal for 2013-2014 to include (1) solving for missing pieces among the highest priority sets (discussed earlier in the meeting and not solved); (2) updating vintage pieces (discussed and not solved); (3)

placing emphasis on state integration of local source data (discussion today); and (4) increasing participation by state data providers (central and/or distributed; discussion today).

Vision and benefits to be realized include satisfying more business needs / saving more time in both the public and private sectors, building trust among users who expect to find the best available data, and gaining more users for web services and downloadable data.

Other strategies relate to applying data and web services to enterprise applications to satisfy more business needs and users, and leveraging non-state web services in applications.

Two side topics about orthoimagery emerged.

- Concerning imagery download, Kat and the NC OneMap team discussed current access methods via the Geospatial Portal.
- On the topic of NC OneMap imagery caches, Kat observed that it takes her a week to create an imagery cache for Rowan County. Would CGIA, with better server capability, be interested in providing, for a small fee, caches from the imagery data? She prefers to use cached imagery stored locally for performance purposes. Would there be demand for cached imagery from multiple counties and what would it take to produce and distribute the cached data? This idea merits discussion at another time after more consideration.

5. NC OneMap Communication/Outreach Opportunities [David, Brett]

The NC Property Mappers Association conference will include a NC OneMap workshop presentation.

6. Policy Issues from Group – No additional issues.

The meeting adjourned at 3:00 PM.

Future Meetings

October 21

November 18

December 16