

NC Geographic Information Coordinating Council

GIS Technical Advisory Committee

Minutes, November 9, 2009

Attendance: Kelly Laughton, Chair; John Farley, David Giordano, Jamie Hammermann, Jason Mann, Tom Morgan, Colleen Sharpe, Drew Pilant

Kelly Laughton, Chair, called the meeting to order. Mr. Tim Johnson, Director of the Center for Geographic Information and Analysis welcomed the members to the reconstituted GIS TAC. Ms. Laughton said she was very pleased with the membership and the range of skills represented. She said she came from an IT and GIS enterprise environment in local government and currently was a consultant. She said she does not have a strong GIS technical background, but has a management perspective and is familiar with ESRI. Members introduced themselves.

Introductions. Tom Morgan is the Land Records Program manager with the Secretary of State. In that capacity he coordinates activities and co-chairs the Seamless Parcels Working Group of the Statewide Mapping Advisory Committee (SMAC) with Pam Carver of Henderson County. He is a member of the Working Group for Orthophotography and his agency recently updated the digital orthophotography standard, and is working on the LIDAR standard.

Colleen Sharpe is the GIS Manager for the City of Raleigh and began the city's GIS program, which is now part of IT. She serves on the GICC and is a former chair of the Local Government Committee.

John Farley manages the GIS Unit at the NC Department of Transportation and began his career as a GIS technician and served in both the public and private sectors. He is interested in setting a new vision for NC OneMap and how it impacts the state government architecture.

Drew Pilant is with the EPA's Office Resources and Development and just joined the Federal Interagency Committee. He uses image processing for remote sensing. He wants to help coordinate data initiatives and be a liaison in the federal community, and is interested in open source solutions.

David Giordano is the Database Administrator for NC OneMap and wants to further its usefulness.

Jamie Hammermann is with the NC Wildlife Resources Commission (WRC) and is interested in technical leadership for NC OneMap and sees its value to public and private sectors. She was asked by John Correllus, the chair of the State Government GIS Users Committee, to represent that group.

Jason Mann, City of Asheville, said he is the GIS & Application Services Manager in the city's IT department. He represents the Local Government Committee and formerly served on the Statewide Mapping Advisory Committee (SMAC), but his interest is more aligned with the GIS TAC.

Bylaws. Ms. Laughton said this is a pivotal time for NC OneMap and its refresh, when funding becomes available. The TAC should focus on what that refresh should be, in light of how we use it and new technologies. The recently revised TAC bylaws give the TAC the responsibility to respond to the GICC on technical issues and opportunities, reviewing and recommending changes and directions. She

commented that the SMAC has a tremendous amount of work, but the TAC should work on standards, implementation and a statewide report on technical architecture for the GICC's annual report to the legislature. She said the membership of the TAC is a cross-section of the various governmental interest groups. Workgroups will be convened when broader expertise is needed for an assignment.

Meetings. Ms. Laughton suggested the TAC meet quarterly on Thursdays following the Wednesday GICC meetings.

Gap Analysis for NC OneMap. To begin a plan for refresh of NC OneMap, Ms. Laughton mentioned the TAC could rank components of NC OneMap in a gap analysis and red flag the items that are suffering. For example, some of these components could include network architecture, servers, GIS applications, databases. Ms. Hammermann said that for gap analysis to work you need to have a beginning point and an end point. Mr. Farley asked if this was strictly CGIA's architecture since that agency manages the website portal and databases; but is a small part of the state's architecture. Ms. Hammermann asked about the NC OneMap objective. Ms. Laughton said that NC OneMap is currently a portal, but it could be more. Mr. Farley said that the TAC needs to decide what NC OneMap is now, and what it should be. Even though there is no current budget to refresh NC OneMap, the GIS TAC can still create the vision of what NC OneMap wants to become, he said. Ms. Laughton said that the Management and Operations Committee is responsible, conceptually, for NC OneMap. Ms. Sharpe said people outside of the TAC should be asked what NC OneMap means to them.

Ms. Laughton said NC OneMap involved all constituencies when it first created a portal in 2003. The TAC should grapple with what do we do next, from a business user's perspective. We need to know which new technical aspects have changed, and review the vision. Ms. Sharpe thought the TAC priority should be the technology available for a refresh, and we should seek ideas from different user groups.

Mr. Morgan said each of the GICC committees should be asked their view of NC OneMap. Ms. Laughton agreed and said they should also be asked about the initial 2003 vision. Ms. Hammermann suggested defining the NC OneMap audience: the data users versus those who are "looking" at the data in the viewer. Mr. Farley said we need to prioritize requirements for the NC OneMap viewer and deploying services based on cost and return-on-investment to the state.

Mr. Morgan said the three SMAC working groups are going to be adding lots of data to the NC OneMap data download site: The 2010 statewide orthophotography files will be 8 terabytes, compressed. Ms. Sharpe asked if the purchase of Image Server would solve that problem. Ms. Laughton said this imagery should be on solid state discs and costs are very high. Mr. Morgan mentioned that NC Department of Agriculture has a Google Map enterprise license with 300 seats and they can merge layers. Mr. Farley said software is not a problem: The problem is infrastructure to carry the data. Ms. Sharpe said another possibility is to cache the data in a static layer and make it available. Ms. Laughton said this is the type of issue the TAC needs to address. Mr. Giordano said LizardTech is deployed to compress all NC OneMap imagery. Mr. Farley said some agencies, like NC DOT, need uncompressed imagery and they will create their own cache.

Ms. Laughton said NC OneMap is more than technology. Mr. Farley said access should be available to everyone, but a few top requirements must be focused on saving money for state network and infrastructure.

Three Questions. Mr. Morgan said the GICC community could respond to three questions:

1. Who are the NC OneMap customers?
2. What is the meaning of NC OneMap today (e.g. a data warehouse, a data viewer, web map services, etc.)?
3. What should be the future direction (wish list) for NC OneMap?

Ms. Laughton said that the virtual warehouse was a core premise in the NC OneMap vision: all data is maintained at the source. Mr. Farley mentioned that we need all 100 counties to participate, not like the current situation where many counties don't provide a link to the state. However, House Bill 1779 now requires the Division of Motor Vehicles to work with 100 counties to collect local property taxes for registered vehicles, and each county must connect to the State. Mr. Pilant asked why NC OneMap should be less than everything it can be. Mr. Farley said the dream vision in 2003 needs to be revisited and requirements established. Mr. Morgan said every local government has its version of a dataset, and it is a question of web services vs. datasets. For example, the Working Group for Seamless Parcels is trying to build a cohesive parcel dataset across county lines for the entire state. Ms. Sharpe said the question on future direction might well be what will drive you to the NC OneMap website. Ms. Laughton said the question might focus on how NC OneMap can be updated to serve your needs. Mr. Mann said there is a certain amount of risk from the private sector that might wish to determine needs. Ms. Laughton will rephrase the questions and send to Mr. Johnson for distribution to the GICC and its committees. She will request each committee chair to summarize their committee's responses and return to her by January 15, 2010. Ms. Laughton will convene the TAC by phone later in January to talk about the results and the next step of doing a gap analysis.

State GIS Technical Architecture. Mr. Farley said the state architecture is undefined relative to GIS. State agencies want to give the Office of Information Technology Services (OITS) a pre-negotiated architecture that will not detail databases and hardware, but build a service-oriented approach with use cases. Mr. Morgan said this is a method for obtaining approval for a boilerplate. Ms. Laughton said if state government has a group looking at this, maybe it can also help local governments. Ms. Sharpe said that might be what local governments are looking for, not the technical detail. Mr. Farley said security across a shop is important, and to negotiate and deploy a tool that is included in boilerplate must be based on the government agency level.

Ms. Sharpe asked if the State has GIS equipment standards. Mr. Farley said no, but ArcGIS Server, security of firewalls, performance, and implementation are standard elements. Ms. Laughton said those issues could be standardized as best practices and serve as a model for all agencies. Mr. Farley said a definitive state standard is only applicable to state government.

Keyhole Markup Language (KML) Data Format. Ms. Hammermann asked about data distribution using KML. Her public end users for Wildlife Resources Commission web pages are hunters, boaters, and anglers who now expect they can get government data through Google Earth. She mentioned that WRC data is not that accurate, and although metadata is available, you cannot assume it is consulted, especially if using KML. Ms. Laughton asked what matters more: access to government maintained data versus an alert to users on accuracy issues. Mr. Sharpe said Raleigh is removing Google Maps from the city website and is only taking responsibility for city-generated data. Mr. Farley said you can publish disclaimers about accuracy, but who will generate metadata for data in the KML format. Mr. Pilant said KML is an OGC standard and is open source.

Ms. Hammermann said that GeoCommons website <http://www.geocommons.com/> absorbed NC OneMap data and converted it to KML, but it is not matched with correct metadata. Mr. Morgan asked if we can

make a business case for NC OneMap to convert the datasets to KML. Ms. Sharpe said iPhone applications are using KML. Regarding interoperability, Mr. Mann suggested we consider which service hits the widest audience and who the primary customer is. The private sector can do a better job when they get government data, he suggested just make it available to anyone.