Requests by State Agencies for Geospatial Data Produced by Local Government

**Report by the Local Government Committee of
The Geographic Information Coordinating Council**
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Background

County and municipal government agencies receive frequent requests for copies of locally produced geospatial data from many different state government agencies. Duplicative requests for data pose a burden on local government agencies with limited staff and computer resources.

At the August 3, 2006 meeting of the Local Government Committee (LGC), LGC members and other local government representatives present described the extent of the problem. Some examples are described below:

- One county reported responding to requests from seven different state agencies in the past year for orthophotography, a data set that is essentially static. The state agencies were:
  o Department of Transportation
  o CGIA
  o DENR (2 other DENR agencies other than CGIA)
  o Department of Agriculture and Consumer Services
  o Division of Emergency Management, Department of Crime Control and Public Safety
  o State Property Office
- Another county received requests from different sections in the same state government department. In one case the request was from a person in the same section to which the county had previously provided the data. In fact, the person making the request worked at a desk adjacent to the person who had previously received the data but claimed that they could not transfer the data between the two computers.
- Another county reported requests for the same data set from the following agencies:
  o CGIA, for the Floodplain Mapping Program
  o Division of Forestry
  o Wildlife Resources Commission
  o Department of Commerce

These are just a few of the examples that were cited. Each of the local government representatives in attendance at the LGC meeting reported multiple requests from different state agencies. Each of the departments cited above were mentioned more than once.

In addition, counties receive data requests from other organizations with ties to state government that add another dimension to the problem. For example:

- One municipality reported that frequent requests from students at North Carolina State University are a growing problem.

- Several in attendance noted that similar requests for data come from lead regional organizations. One person noted that a letter from a COG requesting data stated that the COG had been "designated by the state as a Regional Data Center for spatial data." It was not clear which state government agency had designated this particular COG to manage data or for what purpose.

The geospatial data sets most frequently requested from local governments are:

- Aerial imagery (orthophotography)
- Street centerlines
- Property boundaries (cadastral data)
- Zoning boundaries
- Jurisdictional boundaries

Problem

Local government representatives expressed frustration with the lack of communication among state government agencies. Problems persisted even when state agencies were informed that the data had been provided to another state agency. Either the state agency making the request did not want to request the data from the other state agency that had acquired the data or the state agency with the data did not want to redistribute the data.

The LGC members and other local government representatives present at the LGC meeting acknowledge that the issues are complicated and that inconsistent policies at the local government level contribute to the problem.

Some of the issues that contribute to the problem are described in the following section:

Issues

Redistribution – The issue of redistributing data, once acquired by a state agency, is one complicating factor. Local government polices vary considerably. Some local governments:
- Permit unrestricted redistribution of their data to any other organization.
- Permit redistribution of their data to other state and federal agencies but not to the private sector.
- Do not allow redistribution of their data to any other organization.
- Require a signed agreement covering the conditions of use and redistribution, which in some case must be approved by elected officials.
- Require an official letter of request that states the intended use of the data;
- Have different policies for one data set than for another data set.

State government agencies also have different policies for redistributing data that were acquired from local governments. Some state departments do not want to be responsible for redistributing data to other state agencies. Conversely, at least one state department has a policy in place that requires that they share any data that they possess, even if the local government that provided the data does not allow redistribution.

Data Currency – Local governments acknowledge that, for data sets that are updated on a regular basis, users may need the most current version of the data. To reduce the frequency of requests for these data sets, some local governments support a download capability by posting the data on an FTP site. Others may supply data on a CD for a fee. The fees are usually, but not always, nominal. Data provided on CD represent a snapshot in time and may only be updated on a quarterly or semi-annual basis. Agencies that do not support a download capability or that have more restrictive distribution policies are likely to receive more frequent data requests.

Space Limitations – Most vector data set files are small enough to be easily distributed over a network. The same is not true of raster files, particularly aerial photography. This data set poses the most difficult problems. Issues include:
- Uncompressed aerial imagery cannot be easily distributed over a network. The time required to transfer aerial imagery for a county may be hours and transmission failure is common.
- Transfer of aerial imagery is typically by DVD or portable hard drive. For large counties, as many as 90 DVDs may be required to store uncompressed data and the time to load the data can run into many hours. Portable hard drives offer a simpler solution but are bulky, expensive to ship and must be returned by the data recipient.
- Compressed aerial imagery requires significantly less storage space but is not suitable for all applications. Some state agencies need the uncompressed TIF files.
- Currently no single state government agency has the capacity to store aerial imagery for all or even most of the counties in North Carolina. State agencies that acquire aerial imagery from counties cannot easily store and redistribute the data to other state or federal agencies.
- Some counties, even those that provide their vector data through a download capability, simply do not fulfill requests for aerial imagery due to the burden on staff and computer resources. Instead, counties may refer these requests to the photogrammetry contractor that acquired the imagery. The contractor, under a contract with the county, is authorized to provide the imagery on a portable hard drive at a fee, which can be as much as $800.

Documentation – The lack of compliant metadata for many data sets complicates the problem and may lead to frequent follow-up phone calls from agencies that acquired the data, either directly or from a secondary distributor. In some cases, agencies are reluctant to serve as either the primary distributor or a secondary distributor of data for which metadata is unavailable.

Formal Agreements – Are formal memoranda of agreement required to define the obligations of the agencies involved in data sharing? Or are there general public access policies that include language that define or address the obligations and commitments of the agencies sharing data?

Summary and Recommendations

Initially, the LGC focused on a single recommendation – that the State designate a single state agency to serve as a clearinghouse for all data requests by state government agencies to local governments.

However, in recognition that the issues are complicated and that the problems cut across both state and local government agencies, the LGC recognizes that the solution is not quite so simple. A mix of policy, process and technology solutions will be required to solve the problem. There may be different solutions or strategies for different data themes.

The LGC recommends that the Council direct the Statewide Mapping Advisory Committee (SMAC) or a special subcommittee under the direction of the SMAC to study the problem and develop specific recommendations that address the concerns of state, federal and local government agencies. If a special subcommittee if formed, it must include representatives from local government appointed by the LGC.

The SMAC should consider the following:

1. The vision and characteristics of NC OneMap. The vision of NC OneMap addresses many of the concerns raised by the LGC. The LGC believes that the policies, processes and technologies adopted by the Council to address the issue of data sharing must be grounded in the NC OneMap principles and represent best practices that can be adopted by participants of NC OneMap.

2. The activities of the Working Group for Roads and Transportation (WGRT). The WGRT is a subcommittee of the SMAC that is addressing many of the problems described herein but for a single data theme – roads. The work of the WGRT is in essence a microcosm of the larger issue of data sharing and the conclusions and recommendations of the WGRT may be applicable.

3. The activities of the SMAC's Orthophoto Planning Group. The Orthophoto Planning Group is a long standing subcommittee of the SMAC that addresses issues related to orthophotography. At its July meeting, the SMAC asked the Orthophoto Planning Group to address problems related to sharing aerial imagery, primarily among state agencies in the Raleigh area. Again, as with the activities of the WGRT, the activities of the Orthophoto Planning Group will likely focus on many of the same problems that concern the LGC.

4. The potential role of Ramona, the geographic data on-line inventory tool that was released by the Council this spring. Perhaps Ramona can be used to track data developed by local government and subsequently shared with other agencies.

5. The activities of the Library of Congress partnership between NC State University Library and CGIA. This project, which focuses on archival and preservation of geospatial data, may provide insights that are applicable to the data sharing problem.