

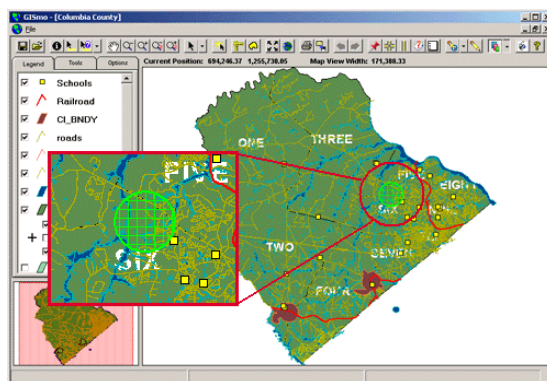
## GIS Proves Invaluable in Macon County

### Macon County, North Carolina



Complexity and simplicity are harmonious neighbors in Macon County, North Carolina, working together to build a GIS program that helps tackle the citizens' most vexing problems.

Simplicity for the user is the key to acceptance of any technology, GIS Analyst Josh Pope believes, but without complex data layers in the background and robust functionality, there's little value there, regardless of how user-friendly the programs are.



GISmo

Macon County has achieved that balance through careful planning, innovative ideas, and software like Geographic Technologies Group's GISmo and GISmoWeb, which help make GIS accessible to everyone who needs it.

"We started GIS small but are always trying to get it out to more and more departments, as well as to external users," Pope said. "There are an endless number of uses, and I feel like we have only scratched the surface."

The county's current GIS initiatives include:

- Serving as a test region for a multi-county study of ways to prevent landslides like the one caused in 2004 by Hurricane Ivan. "We're doing soil surveys and collecting data in seven counties to see how we can better prepare for hurricanes. No one expected the mudslide like we had last summer, and we don't want to be caught off guard again," Pope said.
- A data collection project with Geographic Technologies Group that includes orthorectifying all of the streets and updating maps for the entire county.
- 911 Pictometry. "Oblique imagery will let us see the sides of buildings, in addition to the tops, which is helpful to integrate with current layers and cell phone towers. We'll be able to pick up the locations of cell phone towers and see all of the entrances of buildings, which will help us and locations more easily. For example, when we're serving warrants, we will know which doors need to be covered. Law enforcement will find this very valuable. They will use it every day."

When county officials retake the photos a year from now, tax officials will have an easy way to see how buildings have changed over time, as well as have a visual reference of expansions and improvements.

- Employees in the Tax Assessor's Office now have tablet PCs and use GISmo to retrieve existing data and add new data when they are in the field. "They can be standing in a front yard and pull up the aerial photograph of the building, verify they are at the right address, see who lives next door, get all of the old tax information and then take a picture of the house with a digital camera, rename it with the Tax ID and load that into the database," Pope said. The photograph and revaluation information are then available to the public on the county's GIS Web site.
- Mapping the location of septic tanks and drain lines. The information is now on paper, and property owners are inadvertently selling off repair areas.

- Planning a project that will allow environmental health inspectors to transmit restaurant inspection results directly from the field and post the data automatically on the Web.
- Remapping the county's flood plains, which will ensure greater accuracy for insurance rates.
- Developing new modeling software to help better predict potential damage from natural disasters, including floods and hurricanes.

There's a lot going on with GIS in Macon County, and all of it is designed to help employees do their jobs better and faster.

For example, GISmo is used extensively in the Tax Assessor's Office, Pope said.

"It makes it so much easier to pull up tax data and navigate through the files. After all, their job is to tell us how much our county's property is worth, not to be GIS experts, and with GISmo, they don't have to be. GISmo is so easy to use. Everyone loves it."

Another internal user is the County Board of Elections. "We have two municipalities in the county, and they can easily pull up someone's address and see whether the citizen is within the municipal boundaries and which precinct they are assigned to vote in. It saves the staff a lot of work, and they end up with fewer ballots cast in error," Pope said.

"Everything we do internally to beef up our GIS program ultimately benefits the citizens because we are making it easy and fast for them to get the information they need out of our database."

Pope said Macon County citizens have been extremely receptive to GIS and appreciative of access to the system. The 10 computer terminals in the Tax Assessor's Office are in constant use, as is the Web site.

Real estate professionals especially love having up-to-the-minute tax data at hand because Highlands, one of the municipalities in Macon County, is one of the most active real estate markets in America. Its permanent population of 3,000 swells to 30,000 in the summer with the influx of seasonal residents, and property is always changing hands.

"People are always subdividing land, and the comparable values in the neighborhood are in constant flux, so without GIS technology, that would be hard to keep up with and even harder to pass along to the public," Pope said.

## Geographic Technologies Group

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