

Case Study:

Strategic GIS Priorities are Revolutionizing
Business for Richland County, SC
Richland County, South Carolina

Geographic
Technologies
Group

Understanding
Local Government

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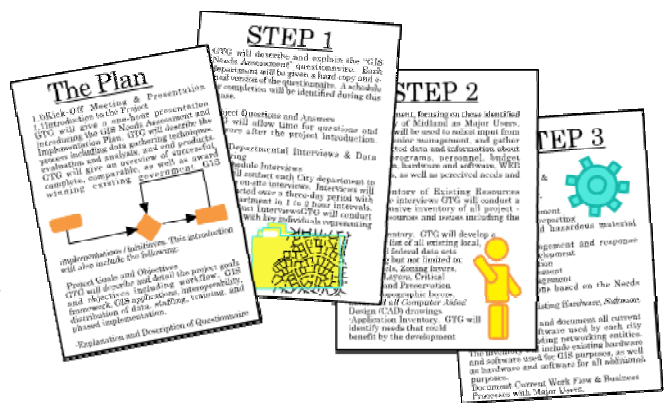
The list of GIS priorities and objectives in Richland County, South Carolina, is long and complex. The list of accomplishments over the past 18 years is even longer. It's impossible not to be impressed by the ways GIS has helped the county produce major results for its citizens over and over again.

But the purpose of the Richland County GIS program is surprisingly straightforward.

"We want GIS to be at the core of everything we do. We want it to improve every workflow, every decision, every process," said Brian Fitzgerald, Richland County's Senior GIS Systems Engineer. "And we want to establish a foundation of geographical information to support the decisions we make on behalf of our citizens."

It's an ambitious goal, but one history would suggest is highly attainable for the County.

GIS was a new technology in 1999 when Richland County enlisted Geographic Technologies Group's support in developing a strategic plan for the emerging science. Over the years, GTG has worked with Richland County to keep the plan current, provide software solutions, assist in data collection efforts, and help with many other special projects.



"Richland County has been very impressed with the detail and professionalism exhibited by the GTG team during each of these projects," said Patrick Bresnahan, Ph.D., Richland County's Geographic Information Officer. "They pull together our enterprise vision by meeting with all of our department directors and senior staff, and we have never been disappointed or let down by them."

GIS professionals in Richland County believe in planning and are, in fact, on their fourth revision of the strategic plan first done in 2000.

"It's invaluable to us as we decide how to set priorities, quantify our financial needs and decide where to focus our time," Fitzgerald said.

Having a clearly articulated direction is especially valuable given the County's governance structure for GIS. They use a hybrid model, with policy-level functions carried out in the IT department with its half-dozen GIS professionals, and day-to-day responsibilities distributed among user departments.

"In IT we make decisions on software, hardware, contracts, and policies and procedures, and we handle data collection and training. We feel that GIS, at its core, is an information system and belongs in IT. But individual departments make their own maps and maintain their own data; we in IT facilitate the use of the technology in every department."

County officials believe the structure works well and furthers their goal of bringing GIS to even the most mundane tasks. GIS has won the support of workers at every level of the organization, and many external users.

The County has even begun licensing data and charging for maps in an effort to mitigate some of its costs and avoid subsidizing private enterprise. "We want to make the information available while protecting the County's investment in data development."

Fitzgerald says he can cite dozens of examples of how GIS has revolutionized the way business is done in Richland County.

"One of the high profile successes we've had involves our Business Licenses Department. Historically, the County outsourced this function to the City of Columbia, but the systems we had put into place as a result of our strategic plan allowed us to take the function back. Because we had accumulated all of the spatial data, we were able to geocode against our SDE and put the business license points on a layer for everyone to use.

"The Business Licensing staff doesn't know what's happening in the background, but when they issue a license, it appears on the map, so they can take their laptops into the field and see on their navigation systems where current licenses are held," he said.

"It's a great example of how embedding spatial functions into core business processes creates significant improvements."

Current GIS priorities include:

- A multi-year digital orthophotography project with aeriels taken in the winter (leaf-off) and summer (leaf-on) between 2006 and 2008 to update key infrastructure data layers and compare changes in land cover (water, trees, etc.).
- Converting parcel information to digital layers. "The parcel layer is the basis for our capacity to create, maintain and distribute information on tax, zoning, voting, assessment, garbage pickup and complaint management," Fitzgerald said.
- Building a central database of zoning designations that can be used with GIS to create zoning maps. Several different departments in the County currently keep track of zoning data.
- Continuing to improve and expand the County's online mapping service. "We offer a great service already, but there are other needs we'd like to address, for example, allowing citizens to easily see on a map which voting precinct they're in, and who their council and school board representatives are. We'd also like to institute an online service request."
- An AVL pilot program. The County wants to allow moving assets to be monitored via GPS and wireless communication technologies. Historical information can be collected and maintained for each asset and later analyzed to determine efficiency gaps.
- Updating flood zone maps; this project is part of FEMA's nationwide project to update flood insurance rate maps. Richland County will provide data to create more spatially accurate flood zones incorporating Flood Insurance Study data, including cross-sections, base flood elevations, and elevation reference marks.

"We definitely have a lot going on. Some of it is very high profile, some is strictly in the background," Fitzgerald said. "The great thing is, everyone benefits, from the power users to the employees and citizens who know absolutely nothing about GIS, and everyone in between. The investment we've made over the past 18 years has paid off many times over."

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