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PREPAREDNESS

Smart Practices Spotlight

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Using GIS to Enhance Emergency Response Operations Cabarrus County, North Carolina

***Summary:** Across the nation, state and local personnel are recognizing the need for collaboration and coordination in emergency preparedness and response operations. This week's spotlight focuses on how one county planned a data collection project that will be utilized by multiple departments and will assist in the future planning of emergency and non-emergency situations across the county.*

Located in the southwestern part of North Carolina, Cabarrus County is home to a wide range of businesses and industry. In a time where budget constraints are impacting jurisdictions at all levels, Cabarrus County has found a way to provide its 911 centers with more accurate information and digital photographs. These functions will aid in the dispatching of emergency services such as fire, EMS, rescue and law enforcement.

Coordinated by the County Geographic Information Systems (GIS) Department and funded primarily by the Sheriff's Department, the project involves verifying every address in the county, assigning a Longitude/Latitude coordinate to each primary structure, verifying street centerlines, and storing an image of each improved property in the county.

The project initially evolved from the need to correct and verify addressing in preparation for implementation of Enhanced 911 (E911) rules, as mandated by the Federal Communications Commission (FCC). E911 rules seek to improve the effectiveness and reliability of wireless 911 service by providing 911 dispatchers with additional information on calls from wireless telephones and improving accuracy in finding the locations of wireless calls, within a 50 to 100 meter radius.

The experience and responsibility of county-wide mapping belongs to the GIS Department, which is spearheading the project initiated by the Sheriff's Department. In consultation with the Sheriff's Department, the project was conceived to include the images and geographic coordinates of each property in the county. When the project was first discussed, the County GIS Manager saw the potential for additional benefits and began involving other county departments. Now, what started out as a project for one department has come to involve four departments and a nearby county.

There are additional benefits of the project, as well. For example, the digital photographs will improve the quality of visual data used by county real estate appraisers, allow verification and correction of any addressing discrepancies, and assist emergency management in preparing recovery reports required in the aftermath of disasters and emergencies.

"The inclusion of imaging is very important to law enforcement and EMS," Captain Phil Patterson of the Cabarrus County Sheriff's Department said. "Being able to locate a 911 caller is critical to our emergency service system, because it reduces the amount of time it takes emergency services to locate and arrive at the 911 caller's home or business."

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Smart Practices Spotlight highlights practices and ideas that members of the emergency management and responder community have found useful and effective; they are not necessarily advocated or endorsed by FEMA. For more information about this initiative, contact Cathy Cole, GIS Manager Cabarrus County, N.C., at 704-920-2146 or ccole@co.cabarrus.nc.us