

Disasters Prompt City to Revamp 911 GIS

City of Dunn, North Carolina



Case Study:
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The City of Dunn, North Carolina has a population of just over 10,000 and is known by many more people as a convenient stop while travelling along Interstate 95. In the spring of 2011, the City and surrounding area were hit by a series of deadly tornadoes. Immediately following the disaster, the City's public safety staff was made acutely aware of the need for rapid response to emergencies and the importance of highly accurate GIS data.

The City's public safety staff has been utilizing GIS products for a number of years, but as is often the case they were experiencing limitations commonly shared by many public safety organizations. They were not truly leveraging all the technology had to offer. Their E-911 system utilized street centerlines for call location which resulted in unfound calls or calls that were incorrectly geo-located. Charlie Callahan, Communication Director, knew there was a better way. "I had seen what a fully implemented GIS could accomplish and we were not there. We had recently been hit by a series of tornadoes and it became very apparent that we needed a more sophisticated way of tracking information," stated Callahan.

Geographic Technologies Group's (GTG) public safety/GIS experts had been travelling the state and providing free educational seminars on how to get the most from public safety GIS. After an onsite presentation to Mr. Callahan and his staff, they realized that they had spent the money on a sophisticated E-911, had access to many tools and GIS data, but were still not taking full advantage of E-911 and GIS.

The City contracted GTG to create and validate address points and build an accurate ESN Layer. Additionally, the street centerline file was corrected to allow for routing while taking into consideration one-way streets and I-95. This information was then utilized within the dispatch center to yield much more accurate results.

Callahan points out, "We now can see the exact location of each call on top of each structure to include our strip malls, mobile home parks, and apartments. Our accuracy has improved greatly. The next step is to tie in other data such as material safety data sheets (MSDS) and building pre-plans."



Address Points Centered on Each Structure

Curtis Hinton, President of GTG, stated; "Studies show that ninety percent

of public safety agencies across the United States are not utilizing their public safety systems fully with available GIS capabilities. In many cases, it is a matter of education and leveraging existing technology and data." The City of Dunn went from a system that had many unfound calls, to a system that is accurately geo-locating ninety-nine percent of all calls received. Mr. Callahan points out, "Full use of our technology will undoubtedly allow us to have a safer community. Working with GTG has enabled us to move to the next level with our investment. We are contracting with GTG to maintain our GIS data moving forward and to continually give us a Public Safety/GIS Health Check." Mr. Hinton further points out, "Most public safety agencies have a wealth of data and technology within their grasp. However, in so many cases the technology is underutilized. GTG has helped over 500 public safety agencies leverage the technology fully.

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