



Leaders at the Core of Better Communities

2011 Annual Awards Program Program Excellence Awards Nomination Form

Deadline for Nominations: March 11, 2011

Complete this form (sections 1 and 2) and submit with your descriptive narrative.

SECTION 1: Information About the Nominated Program

Program Excellence Award Category (*select only one*):

- Community Health and Safety
- Community Partnership
- Community Sustainability
- Strategic Leadership and Governance

Name of program being nominated: Mobile 311 Program

Jurisdiction(s) where program originated: City of Asheboro

Jurisdiction population(s): 25,111

Please indicate the month and year in which the program you are nominating was fully implemented. (Note: All Program Excellence Award nominations must have been fully implemented by or before January 31, 2010, to be eligible. The start date should not include the initial planning phase.)

Month: April Year: 2009

Name(s) and title(s) of individual(s) who should receive recognition for this award at the ICMA Annual Conference in Milwaukee, Wisconsin, September 2011. (Each individual listed MUST be an ICMA member to be recognized.):

Name: John Ogburn

Title: City Manager Jurisdiction: City of Asheboro

Name: _____

Title: _____ Jurisdiction: _____

SECTION 2: Information About the Nominator/Primary Contact

Name of contact: Casey Fletcher

Title: Marketing Specialist Jurisdiction: City of Asheboro

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City of Asheboro ICMA Annual Awards Program Application Community Sustainability: Mobile 311 Program

Problem Assessment

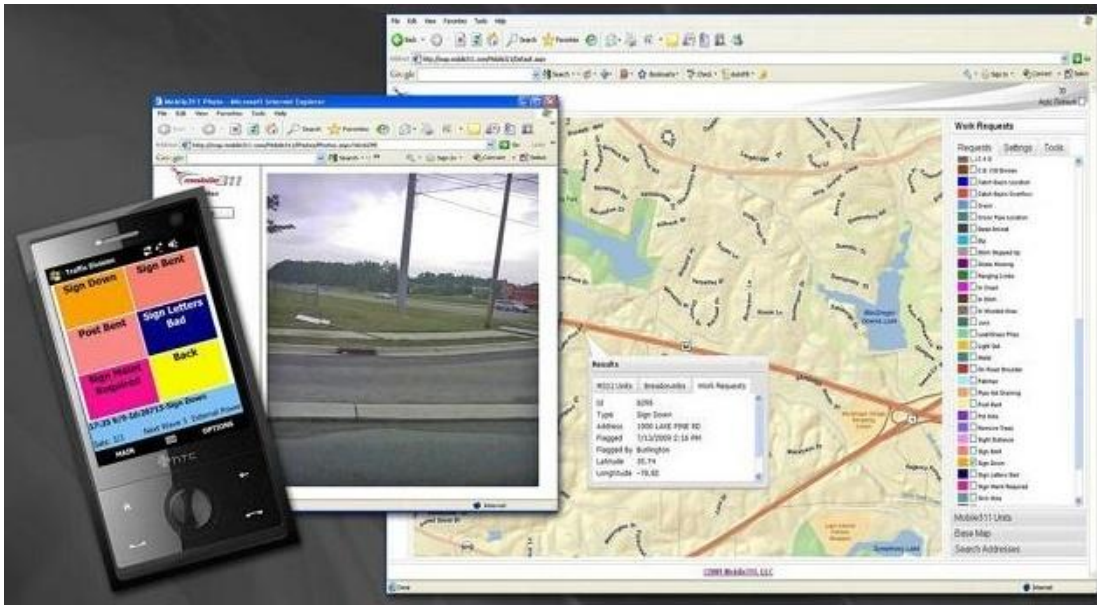
Asheboro, like many municipalities, was struggling to deal with rising fuel costs in late 2008. Environmental Services staff members in particular began looking at ways to improve sanitation collection in order to reduce fuel costs, as well as vehicle maintenance expenses and man hours, while providing quality service to citizens and improving efficiency. At that time, sanitation trucks were visiting every household in the City twice weekly for household garbage and recycling collection. In addition, two bulk trash trucks and two brush/yard waste trucks would complete routes in the City by driving every street looking for items to collect. Depending on the quantity of items placed curbside, these routes could take anywhere from one to three weeks.

Environmental Service managers tried improving bulk items and brush/yard waste collection by using a few different methods to collect data on households that needed service so that drivers did not need to travel down every street in the city. They tried asking sanitation workers to either write down the address for a home with a bulk item or brush pile as they performed regular household garbage collection. When this proved unreliable they tried using voice recorders. This system also proved to be unreliable and inefficient. At that time, the Environmental Services Department staff approached the city's Information Technology Department to begin discussing options.

Program Implementation and Costs

The IT Department led the City of Asheboro to consult with Withers & Ravenel, a North Carolina firm with 18 years of experience in providing GIS solutions to private and government clients. City staff knew that they wanted to use a mobile device to collect information, and began researching which device would work best for their purpose. Withers & Ravenel began developing software that would tie in to the mobile devices selected by the city. From the beginning, city IT staff emphasized the need for a scalable product because they foresaw how valuable this tool would be for a variety of departments.

The mobile devices were selected because they allowed for instant connectivity and provided the additional benefits of serving as mobile phones and cameras. With the simple touch-screen interface, employees with a wide range of educational background were able to use the devices.



Rendering of mobile device with input screen, and screen shots showing photo record attached to GIS map

The cost for the development of the software (including internet-based vehicle location map service, cell phone application, setup and training) was \$21,400. Hardware costs were \$200 per unit for HTC Touch Diamond phones. In addition, the City pays a monthly hosting fee of \$30 per unit for the software and \$30 per unit monthly for the Sprint data plan.

Because the software is web based, the City was able to use existing computer hardware and did not have to purchase any new computers or servers.

Tangible Results

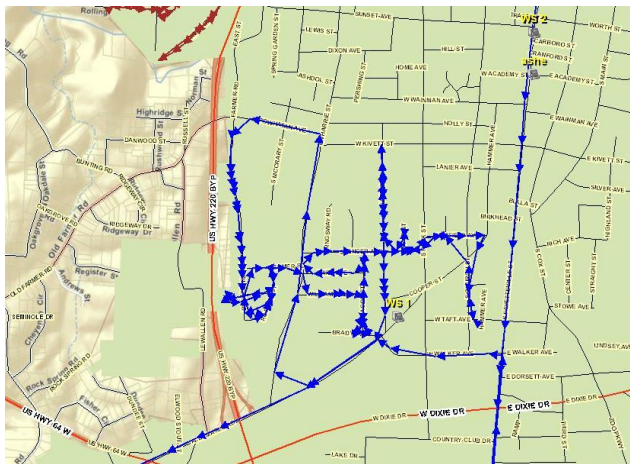
Today, as a sanitation truck travels its route in the City, the driver or operators now simply push a button on their mobile device to mark where a bulk item or brush pile is located. This information is collected using the GPS system, and the following morning the bulk or brush truck operator is able to collect bulk trash and/or brush on a point-to-point basis rather than a complete route.

This new collection system has allowed the Environmental Services Department to see a 64% operations deduction. The department has not laid-off any personnel, but has reduced staffing by one due to attrition. Additional savings results from the fact that the department rarely needs to use part-time help. Sanitation staff also has more time now to work on other department projects.

Sanitation Collection Before Mobile 311	Sanitation Collection After Mobile 311
2 bulk item trucks	1 bulk item truck
2-3 brush trucks	1-2 brush trucks
8 hours/day x 5 days/week = 40 hours	6 hours/day x 4 days/week = 24 hours

By comparing 2008 and 2009 vehicle maintenance costs, the Environmental Services Department found that they saved \$13,401.71 in 2009. This can be largely attributed to the more efficient sanitation routes and the lessened “wear and tear” on vehicles. In addition, the department used 553.09 gallons of fuel less in 2009 compared to 2008.

Once the Mobile 311 tool was tested and implemented in the Environmental Services Department, IT staff held a meeting with other departments. This led to an expansion of the product into other Public Works departments, as well as to the Police Department and to Code Enforcement staff.



Using tracking feature to monitor routes

Uses for the devices include:

- Marking sites that have bulk items or brush piles in need of collection (Sanitation Department)
- Reporting street light outages
- Reporting pot holes (Street Maintenance)
- Tracking water and sewer lines, meters, line breaks
- Tracking graffiti and gang markers
- Recording Code Enforcement issues
- Tracking vehicle/personnel movements using the “breadcrumb” feature – see where trucks have been either real-time or after the fact

Using the phones, employees can also document and geographically tag site conditions. A water maintenance employee can use the camera to take a photo of what a private driveway looked like before a water line construction project. Relating this type of data to a physical location using the GIS software makes it much easier to store and recall than placing it in standard computer files.

In addition, supervisors can review site information from a variety of projects without leaving the office. This eliminates the need to have a supervisor making multiple trips across town.

Lessons Learned

This program is exemplary because it utilizes emerging technology in a very practical manner, involves costs savings and is able to be expanded for future applications. What began as a discussion about reducing fuel costs and improving sanitation service resulted in a new software system that is helping multiple departments find more efficient ways to work.

Expending the funds to create a new product is always a risk, especially in tight budget years. Fortunately, employees have embraced the product and continue to suggest ways to expand and improve the Mobile 311 program. Other governments who may wish to undertake this type of project are encouraged to start slowly with a scalable project that they can continue to develop, and to listen to the employees who will be using the product. No matter what technical experience they had, the actual users of the Mobile 311 program were the ones able to provide the most valuable input.

The City of Asheboro may be a relatively small community, but that did not stop staff from seeking a big solution. IT staff are now exploring the potential to utilize this technology for emergency management, hoping to develop tools to track resources in time of a disaster.