The Innovations Group Survey 2007

Information Systems and Services
400 E. South Street, 4th Floor
Orlando, Florida 32801

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Orange County Government Overview

Orange County is one of seven counties recognized as comprising Central Florida. It is a charter county, meaning it has its own constitution and is self-governing. Having a charter gives the county the ability to respond to a changing environment and meet local needs.

There are over one million residents in Orange County living in 13 cities and unincorporated Orange County. County government is comprised of the County Mayor, six Board of County Commissioners and ten additional elected officials.

Project: Geographic Information Systems – InfoMap Websites

Short Project Description

Orange County Government has developed and continues to enhance two map-centric websites for internal and external use. On our county website (www.orangecountyfl.net), we offer InfoMap for public use and access to our most commonly requested map layers. On our County intranet, we offer InfoMap Secure which internal staff use for internal business processes and emergency operations.

Project Overview

Orange County deployed an interactive mapping module, InfoMap, on its internet web site in October 2002 as a means to provide GIS data to the public. Previously, citizens were limited to requesting GIS maps and data disks from county staff and usually needed to contact multiple departments to obtain all of their desired information. InfoMap now provides a centralized, easy-to-use portal to over 85 GIS layers; supported by comprehensive query tools, map customization and printing options, and data file download capabilities.

InfoMap is consistent with Orange County's goal of providing web-based services to the public. In addition, the website promotes inter-agency collaboration by hosting data from several of the local municipalities. As the site's popularity and capabilities continue to expand, the potential for incorporating additional datasets also increases.

As an indicator of the website's success, the number of monthly hits is over 1,000,000. Feedback from users, especially from local real estate professionals, has been very positive. Another positive benefit is a dramatic reduction in GIS staff time previously committed to fulfilling map and data requests. Citizens are now able to create and save their own map projects using the website, free of charge with around-the-clock availability.

Following the tremendous success of the public website, Orange County began contemplating the development of an internal mapping site. In the wake of devastation

wrought by Hurricanes Charley, Jeanne and Frances in 2004, the county wanted to create a site to display critical GIS information to the Orange County Emergency Operations Center, the 311 Government Service Center, and executive policy makers in order to mitigate against negative impacts and loss to lives and property in advance of and during an emergency. InfoMap Secure was developed and tied the County's Growth Management, Utilities, and Public Works Departments together to provide up to the minute geographical information on critical activities.

The Utilities Department GIS staff uses mobile devices to update the status of wastewater pump stations, which in turn shows areas affected by the loss of power. Public Works has a comprehensive system that uses call tracking to update the status of traffic signals, road closures, and lake elevations, in addition to the status of debris sites and sand bag locations. Growth Management updates datasets for operational divisions without GIS staff and resources. This data includes shelter status, locations of people with special needs, points of distribution for supplies to citizens, fuel distribution sites and mobile home park locations.

Project Enhancements

Orange County continues to enhance the application to bring additional emergency response benefits to the staff and citizens of Orange County and help prevent the loss of life and property.

We integrated Public Safety Communications' 311 with the InfoMap Secure application to display calls as they come into the system. The 311 Magic System is used by the Government Service Center to input calls from the public regarding public services such as animal control, code enforcement, and road repair. In the event of an emergency, the Government Service Center becomes the call center that tracks and helps respond to calls. This enhancement helps call takers with more timely and accurate response to questions from the public by displaying calls directly on maps. A record of these same calls can be analyzed to look for trends and to provide documented history. For example, we know about a localized flooding problem if we receive several calls about flooding in a particular area. With this enhancement, the Emergency Operations Center is now able to visualize calls and make better decisions in relation to those calls.

Using our InfoMap Secure application in combination with wireless communications technology, we are able to input and edit damage assessment locations and information directly into the application remotely from the field. Previously, the process was to take paper maps into the field, mark them, and bring them back to the office to enter the information into the GIS application. This enhancement greatly expedited the data collection process and provided the timeliest information to the Emergency Operations Center and policy makers.

We are working to enhance our InfoMap Secure to include routing capabilities. This will be used by the 311 Government Service Center to direct citizens to shelters, points

of distribution and other places where help is provided. This enhancement will help call takers make accurate and critical decisions immediately. We currently track road closures in the InfoMap Secure application and this will be considered in the routing path. The routing will be performed using the most accurate data available, which is the county-maintained road information. Emergency Responders will also perform routing functions at the Emergency Operations Center in the event of an evacuation. We can use the routing capabilities to evacuate major population gathering points such as airports, theme parks, convention centers and sports facilities.

The County's Stormwater Management Division has rain gauges that monitor real-time rainfall totals countywide. New software can be used to create rainfall patterns. We currently track lake elevations in InfoMap Secure to alert for flooding situations, but this is a manual process. However, using the rainfall data, we can predict which lakes need immediate emergency response attention to prevent loss of life and property. We will have the capability to select homes in flood prone areas and use reverse 911 to notify homeowners of potential flooding situations.

Orange County Fire Rescue stations currently have live data showing wind speed, wind direction, and other weather related data. We will integrate this information in the InfoMap Secure application with new software that will allow us to create a real-time wind pattern to model smoke, chemical, gas, and radiation contamination wind plumes. This information is critical to predict a wide assortment of damages from the spread of wildfires, to chlorine gas leaks, and radiation bomb fallout.

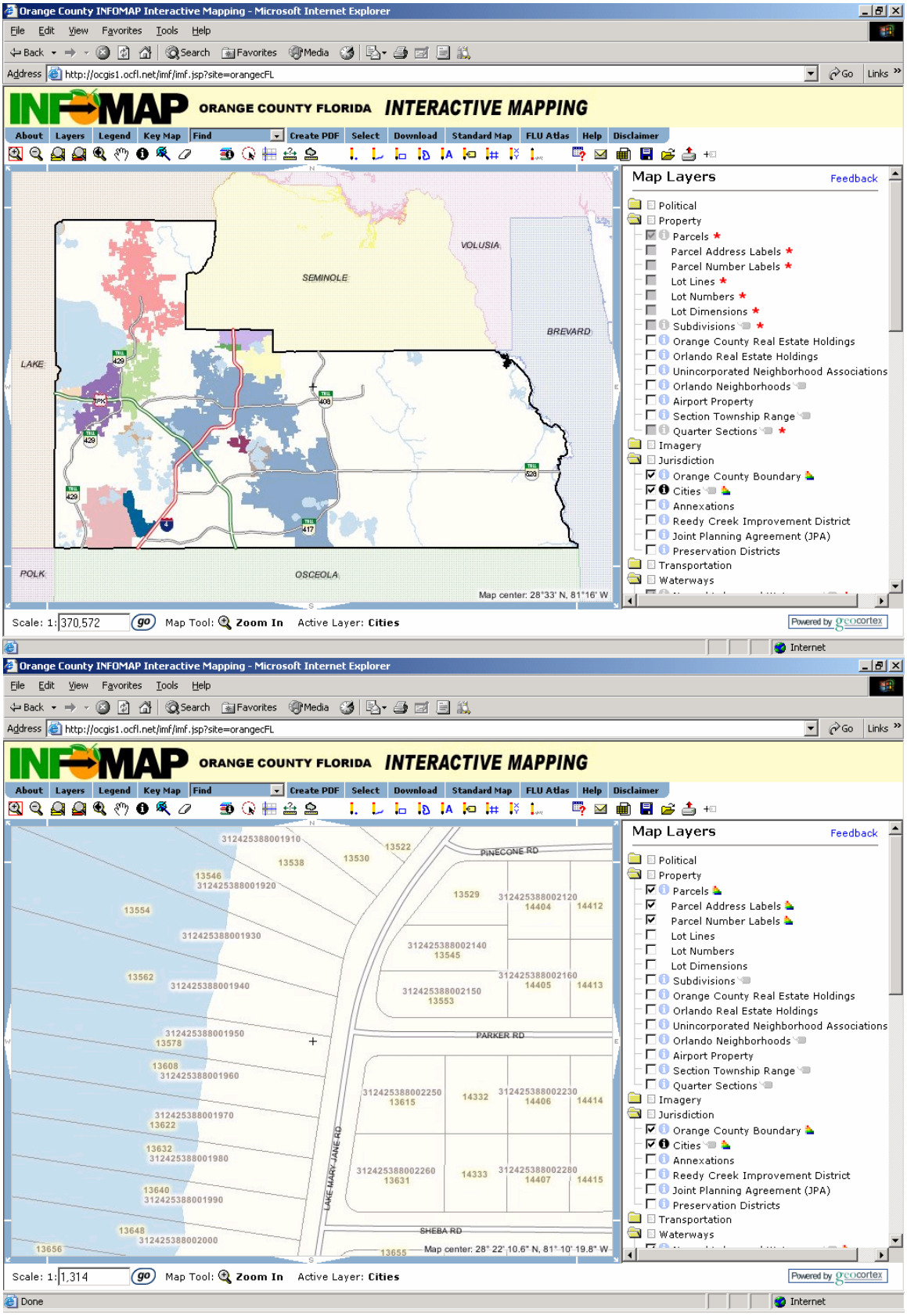
Project Support and Investment

Orange County Information Systems and Services and Orange County Growth Management partnered with Latitude Geographics Group to implement the original solution. The original investment was approximately $50,000 in addition to internal staff effort. Orange County maintains the application and continues to partner with groups throughout Central Florida to add additional content to the site.

Conclusion

The InfoMap websites have greatly improved our planning, decision-making and citizen response. They have helped reduce risk to people and property from natural hazards and their effects. The benefits include improving communication, real-time damage assessments, sophisticated routing capabilities, flooding prediction based on current rainfall volume, and assessing and modeling wind speed for damage and toxic plumes. This is accomplished through the receipt of more timely and accurate data, a more automated process of providing intelligence and a greater ability to assist in incident action planning.

Orange County is proud to offer this functionality to our citizens and staff and we plan to continue our efforts to expand and improve the functionality to meet their ongoing needs.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Joint Planning Agreement (JPA)
Preservation Districts
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Waterways
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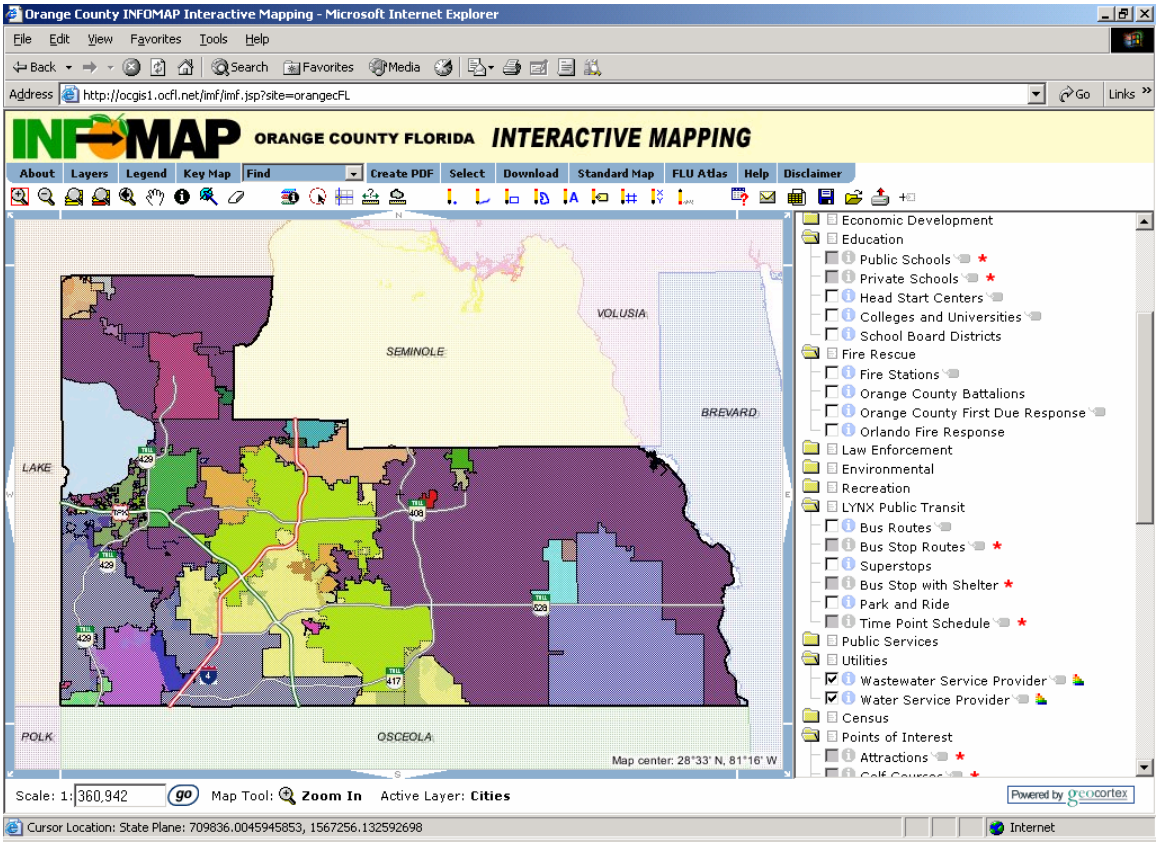
Internet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Education
Public Schools
Private Schools
Head Start Centers
Colleges and Universities
School Board Districts
Fire Rescue
Fire Stations
Orange County Battalions
Orange County First Due Response
Orlando Fire Response
Law Enforcement
Environmental
Recreation
LYNX Public Transit
Bus Routes
Bus Stop Routes
Superstops
Bus Stop with Shelter
Park and Ride
Time Point Schedule
Public Services
Utilities
Wastewater Service Provider
Water Service Provider
Census
Points of Interest
Attractions
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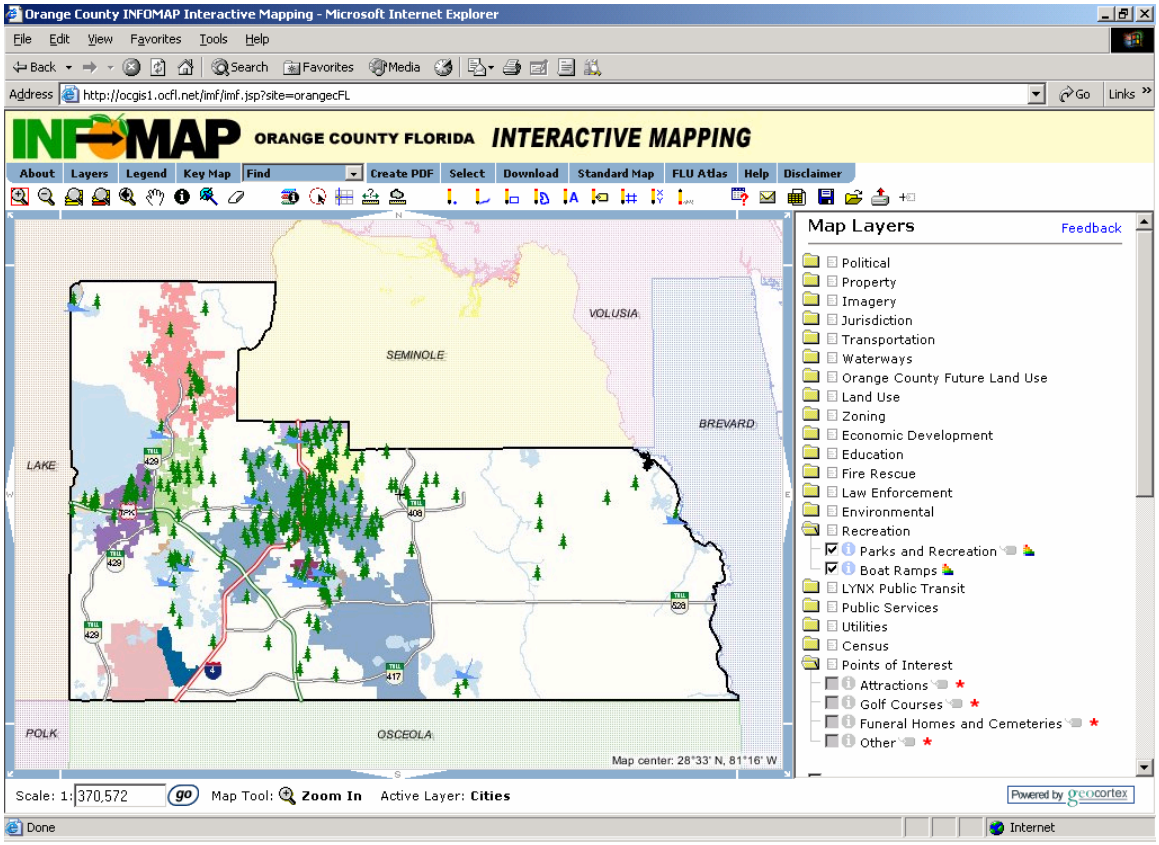
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