

## The Sun Shines on Lake County's Public Parcel Viewer By Larry Duke, Land Records Manager, Lake County, Florida

### Highlights

- The county created an enterprise GIS at an affordable cost even in the current economic climate.
- ArcGIS is the county's new parcel editing platform.
- The GIS of Lake County has been woven into all aspects of county government.

Beginning with its inception in 1887, Lake County, Florida, was primarily a rural county that produced citrus; corn; and winter vegetables, such as cabbages, collard greens, and kale. But in recent years, the county's population has significantly increased as it has become a popular destination for retirees, many of whom spend their winters in the region, returning to more northerly climes during the summer months. Regardless of its seasonal population influx, in the last 20 years, the population of the county has doubled, leading to a boom in housing. Many of the area's orange groves and agricultural areas have been transformed into homes and businesses.

With development on the rise, paired with an increase in property values, efficiently managing data on land information became imperative. To help with this issue, the county strengthened the foundation of its GIS by updating several of its data layers, including its parcel layer. But even with more accurate data resting in its GIS, the information was not easily accessible because it was stored in a UNIX workstation environment. Microsoft Windows-based users of the data relied on local installations of ArcGIS and Exceed software from the Open Text Connectivity Solutions Group (formerly Hummingbird) of Richmond Hill, Ontario, Canada, to communicate with the UNIX server. And because the parcel layer dataset was large in size, it had to be stored in tiles. This made it very difficult to see how parcel edits were affecting unedited adjoining tiles. Yet another obstacle was that, for parcel data to be pushed out to users, it had to be merged into a single dataset. Since this merge was primarily a manual process, it was not performed on a regular basis, and the end-user data was not as up to date as possible.

Lake County's data and software interoperability problem was, and remains, a common one for other counties of its size. The common solution, and the one with the greatest return on investment, is to implement an enterprise GIS, which is the route that Lake County chose. With Windows SQL Server as its database; ArcGIS as the basis for its enterprise GIS; and a collection of Citrix servers (known as a farm) from Citrix Systems, Inc., of Ft. Lauderdale, Florida, to serve out the data and software, the county began migrating its data into the new system architecture.

Kevin Willis, the director of the Lake County GIS Division says, "The GIS enterprise implementation is a win-win strategy, as it allows us to better leverage our existing resources with a higher return on investment and adds value to more diverse county functions."

After migrating a number of the simpler data layers, such as structure locations, hydrants, and annexation boundaries, the county tackled the major task of migrating its parcel base layer. Lake County's Programming and Applications Support Services (PASS) Division, part of the Information Systems Department, was an integral part of the conversion process, designing the new geodatabases and schema. PASS made development of the enterprise GIS possible at a cost that the county could afford even in the current economic climate.

To help put the pieces together with respect to the parcels, Esri Partner Panda Consulting was brought on board to review the schema and geodatabases, as well as provide expertise and advice. The Palm Beach Gardens, Florida-based GIS consulting firm also performed the actual parcel data migration and trained the county's parcel editing staff. The guidance allowed a smooth transition from ArcInfo Workstation to ArcGIS Desktop, which became the new parcel editing platform. The selection of Panda was based on its ability to perform the conversion at a reasonable cost and its preference to use ArcGIS tools as the editing environment instead of proprietary third-party software.

Through the efforts of PASS, Panda Consulting, and the GIS Division, the county now provides better GIS services to its staff, as well as better information to its citizens via a GIS-based website at [www.lakecountyfl.gov](http://www.lakecountyfl.gov). The GIS data is updated through a fully automated process on a nightly basis. GIS data and software can easily be made available to all county staff, and the GIS layers are much more accessible via the web. The parcel editing team now edits a seamless layer that allows team members to see the effects of edits in the same way as the end user views them. This type of visualization promotes more accurate and useful information. In addition, the original parcel layer, which resided in a single feature class, was broken out into several functional areas.

"The GIS of Lake County has woven itself into all aspects of county government," states Frank Royce, deputy county property appraiser. "All departments of city and county government and many of the constitutional officers are now on the same page, all working together with the exact same information. It is current information in an instant that can be shared between agencies and with the public."

Lake County is now in the process of maximizing the benefits of its enterprise GIS.

**For more information**, contact Larry Duke, land records manager, Lake County, Florida, Department of Information Technology/GIS Division (e-mail: [lduke@lakecountyfl.gov](mailto:lduke@lakecountyfl.gov)).



Lake County's interactive map allows queries of parcel data by anyone who has access to the Internet.