

GIS technology for local governments



Municipalities face the task of maintaining service levels after right-sizing, downsizing and budget cuts; and are increasingly required to streamline business practices. Information technology, especially GIS (geographic information systems), is playing a key role in helping local governments cope with this environment.

GIS technology offers a flexible set of tools to perform the diverse functions of government, including the data management tools necessary to combine and use geographic-based information from various sources. GIS helps local governments operate as a single enterprise by making data sharing among departments easier.

Public works – GIS technology provides accurate mapping tools and helps track the location and condition of assets (water mains, valves, hydrants, meters, storage facilities, roads, sewer mains, manholes, etc.).

Zoning and planning – GIS advancements have led to the development of decision support systems that facilitate the community planning process.

Assessment – GIS provides the tools to more efficiently collect, convert and improve map data; accurately assess properties; and provide Internet access to this data for the public and the business community.

Economic development – GIS is used as a management and decision-support tool by communities' economic development agencies.

Surveying – Surveyors use GIS to store and analyze survey information including measurements, orthorectified imagery, GPS

data, LIDAR data, computer aided drafting (CAD) drawings, and survey records. GIS saves surveyors time, reduces cost, and improves their decision-making processes.

Cadastral records – GIS helps agencies meet their primary responsibilities of ownership registration, parcel mapping, real property valuation and data access.

A testimonial

The RM of Woodlands has been using GIS since 2000. Officials have seen improved staff productivity, timely and accurate delivery of information in the management of zoning and development applications, the management of livestock operations, the development of drainage plans for agricultural fields and several other business processes the RM must manage.

The RM started with ESRI Canada's *ArcView 3* software and last year upgraded to *ArcView 9*.

The benefits of the software were immediate. Former Woodlands Development Officer **Wayne Vickers** notes, "The process of determining who was affected by a variance would take about a day when done by hand, and used many paper-based and electronic data sources. With *ArcView*, we are able to review an application and generate notification letters in about 15 minutes."

The current Development Officer, **Lana Cowling-Mason**, says the system is being updated and the staff is undergoing re-training on the system. "We haven't come close to using its full potential," she says. "And that has got us very excited. It appears that the system's only limit is one's imagination." ❧




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