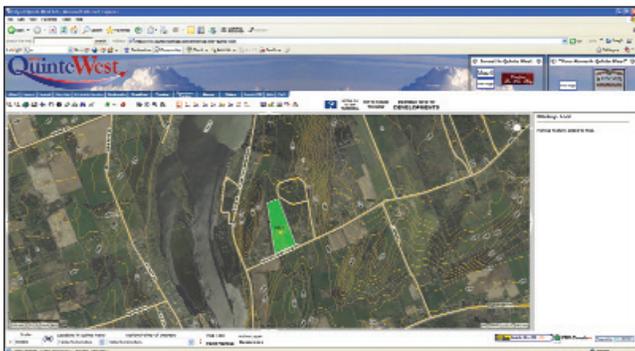


# Interactive web-based mapping in Quinte West



The City of Quinte West is a municipality of approximately 43,000 people in Eastern Ontario. The City's GIS Division was formed in 1999 and is responsible for collecting, maintaining, and creating datasets to support the City's municipal applications. In 2004, the City developed a GIS Strategic Plan in partnership with ESRI Canada to help guide the future of its GIS program through funding provided by the Ontario Ministry of Natural Resources' GeoSmart program.

One of the goals outlined in the Strategy was the development of a public web-based GIS. In the summer of 2005, the City selected Latitude Geographics' Geocortex Internet Map Framework (IMF) and ArcIMS to deliver their solution. The IMF is an enterprise Internet mapping solution that provides a consistent interface for ArcIMS-based spatial web mapping. The core IMF was developed and is maintained by Latitude's business partner Moxi Media Inc.



Users can sketch on their own information using a wide variety of markup tools. Here the user has sketched a polygon in green, added text, and a point.

The City purchased the domain name [www.quintwestmaps.com](http://www.quintwestmaps.com) and the site was released to the public during Geography Awareness Week in November 2005. Staff wanted to provide a GIS that was easy for the public to use and with as much information and detail as possible about their community. Many layers of existing information were entered into the application including properties, roads, cemeteries, schools, parks, and churches. Dataset creation and maintenance is completed using ArcGIS and then the data is served to ArcIMS and delivered to users through the

IMF. Over 100 staff members use an internal IMF application as their main GIS application, but the City saw the potential for a public site that would incorporate unique features to promote the community.

**“The time spent by City GIS staff producing simple maps and querying for such things as property ownership information has dropped dramatically. Now City staff can produce and save their own PDF map, and even email these files to other people with one click. Our GIS staff can now devote their time to further expand our GIS services.”**

*Steve Whitehead, Geomatics Coordinator, City of Quinte West*

The Community Interactive GIS Internet Map Framework provides a wide array of powerful tools for the end user. Users can zoom in and out, pan, measure distances and areas, identify feature properties, search, build queries, add labels, add text, draw (points, lines, and polygons), add map grids, add coordinate points, save map sessions, erase markups, and even create PDF maps.

Google, Yahoo, and many other popular search engines have ranked [www.quitwestmaps.com](http://www.quitwestmaps.com) number one in their rankings for “Community Interactive GIS”.

“Our GIS program has become a core application throughout our corporate structure as it allows all staff easy access to various databases,” said Ed Woods, Manager of Planning, IT & GIS, City of Quinte West. “The City has been able to expand our GIS program via our Community Interactive GIS application. Now all citizens both in Quinte West and around the world can “Surf the City” and see our City like never before.”

Advanced users can add their own shapefiles to each map with the click of a button. This means consultants and other government agencies can

add their datasets to the City information in order to make their own customized maps. This has greatly decreased the time spent by the GIS Division making maps for public agencies and consultants.

One of the most impressive features of the Community Interactive web-based GIS application is the ability to continuously add features and functionality. Since the site was first launched on November 18, 2005 the following are some of the additional features that have been added to the website:

- Drop down boxes to zoom to points of interest sites
- Zoom to buttons for various City Hamlet locations
- Advertising local businesses (for a small fee) with rotating banner that can instantly link to their own website and also map their location in the City
- Advertising residential developments in the City using a banner illustrating both the company and the development name
- Business/Development Listing page that illustrates the participating business/developers. This site also has dual banner rotation with “Map It” and web page link and other detailed information (e.g. contact and address information)
- Quick search function for businesses and place icon on main page
- Added various socio-economic layers to GIS web-based map (e.g. schools, churches, trails, recreation areas, parks, building permits, housing starts, etc.)

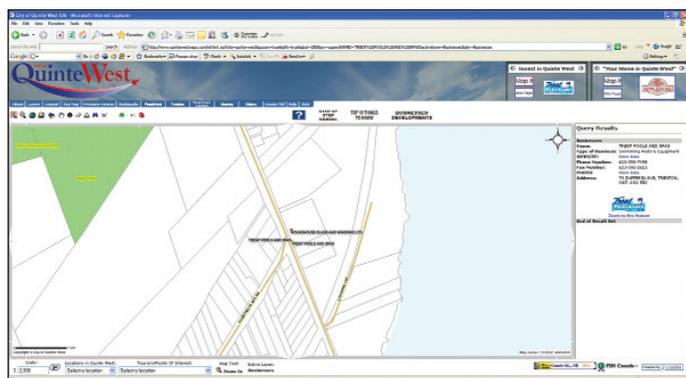
The end user can customize the look of the map by controlling layer symbology and they can save their map as a map session. This session file can then be retrieved on return to the application.

The “Surf the City” campaign initiated by the City in the summer of 2006 was an invitation for area residents and the general public to view the City of Quinte West like never before. Search engines on the site were expanded and simplified by GIS staff to help with this process.

Two additional programs were developed to promote the “Surf the City” initiative. The first

was “Invest in Quinte West”, an innovative, cost effective way for the business community to advertise using the City’s GIS system. Three rotating banners (located at various points on the site) display local company logos and map the company’s location in the City. The user can click on the “Map It” button and view the exact location of the business. There is also a link button to the business website if applicable. To date, the City of Quinte West is the first municipality in Ontario to offer this type of service to its business community. The cost associated with offering this service (which runs 24/7 on the Internet) is very low.

“The Quinte West public GIS website has proven very effective for our business,” said Sue Jones, Owner, Trent Pools. “Customers can view this site 24/7 and find not only the location of our business in the City but also view our website.”



The rotating banner at the top right of the application shows local businesses logos with “map it” and website link buttons.

Recently, the City began to illustrate local residential development subdivisions in the City and the companies who are developing those subdivisions. This program is called “Your Home In Quinte West” and is a tremendous tool for local developers because it not only advertises their developments but it also offers potential buyers from outside the area the opportunity to see where the development is located within the City and where the closest school, church, park, etc., is in relation to the development.

Another promotional tool that has been developed is the City of Quinte West Economic Development GIS (QWED GIS). This GIS

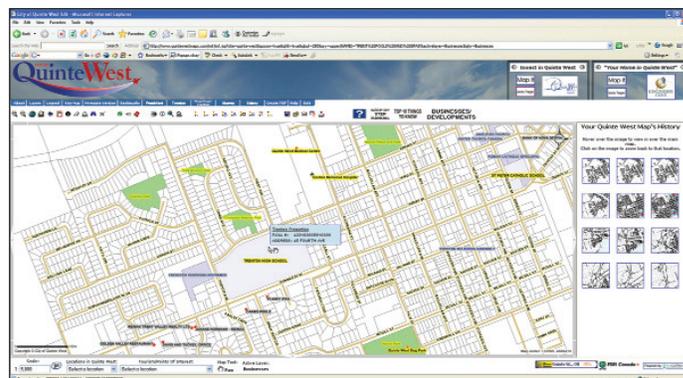
application was developed by the City and its partners Latitude Geographics Group Ltd., ESRI Canada, and Manifold Data Mining Inc. QWED GIS is an economic development database application that can incorporate textual, GIS, and census databases. The user is able to view detailed information on any commercial / industrial property that is illustrated and then access the City’s GIS application to view the property instantly (including aerial photography). The QWED GIS application can also access detailed census information based on the final three characters of the postal code. The user is able to generate radius scenarios around the subject property and see census information pertaining to demographic and household information.

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Quinte West. “Now City staff can produce and save their own PDF map, and even email these files to other people with one click. Our GIS staff can now devote their time to further expand our GIS services.”

The Quinte West GIS is a great benefit to the City’s business community because it provides them with free online exposure using a service that is maintained by City staff who constantly update and expand the information available to the public.

In addition to the more intangible benefits derived through better service to the public, the City of Quinte West can point to several tangi-



Map Tips can be enabled showing roll number and address. The history button shows up to the last ten map views.

ble items that have provided a significant return on investment:

- By centralizing GIS activities to provide GIS mapping functionality to over 100 internal users, the City has reduced the number of users requiring desktop GIS applications and benefited financially from centralized application and data management.
- By providing self serve map generation functionality to in-house staff, there has been a significant decrease in the amount of time spent by GIS staff doing basic map production, allowing them more time to further develop web-based GIS applications.
- The sale of advertising space on the external website has assisted the City in recuperating the initial and foreseeable associated costs of running the application.

**Future plans**

The City of Quinte West continues to develop and customize their web-based GIS applications on a daily basis. They plan to provide more tools for the public to use on the website and will continue to promote the use of GIS in the community.

**City of Quinte**  
www.city.quintewest.on.ca