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YORK REGION RECEIVES URISA AWARDS FOR MUNICIPAL ENTERPRISE AND WEB GIS

The Planning and Economic Development Committee congratulated staff on receipt of these awards and recommends the adoption of the recommendation contained in the following report, May 11, 2006, from the Commissioner of Planning and Development Services:

1. RECOMMENDATION

It is recommended that this report be received for information.

2. PURPOSE

At their annual BeSpatial GIS Conference, the Ontario Chapter of Urban and Regional Information Systems Association (URISA) awarded York Region with two Silver awards:

- Best Municipal GIS Challenge
- Best Web GIS Challenge

These awards recognize the substantial progress the Geomatics Branch has made in creating a robust and reliable Geospatial Infrastructure for the Region. The purpose of this report is to inform Committee and Council of the award, and recognize staff from the Planning and Development Services Department's Geomatics Branch for enhancing customer service through the Geospatial Infrastructure they have created.

3. BACKGROUND

URISA is the primary non-profit organization for the use and integration of spatial information technologies to solve challenges in government agencies and improve the quality of life in urban and regional environments. The Ontario Chapter has over 500 individual and group members. Each year the Ontario Chapter of URISA presents Awards for the Best Municipal GIS and Best Web GIS in Ontario at its annual Be Spatial Conference, based on submissions from its members. There is no financial value to these awards.

The Region submitted an application to be considered for these awards in March 2006. The applications are scored on several criteria, including a description of the GIS enterprise implementation strategy, testimonials and benefits, user interface, documentation and data currency and availability. The Best Web GIS award was judged

on criteria including functionality, user interface, creativity, documentation and performance. The URISA Ontario Board of Directors, comprising representatives from regional and local municipalities and GIS industry representatives, renders judgement based on the criteria, user testimonials, and use of the internet sites.

4. ANALYSIS AND OPTIONS

The York Region GIS strategy was to develop a geospatial information infrastructure based on standards-based managed information, a Spatial Data Warehouse, GIS tools, and business solutions which re-engineer municipal processes to integrate GIS. Enterprise GIS has been achieved through a service bureau, and technology transfer and training that develops power GIS users throughout the corporation. Partnerships with regional departments, lower tier municipalities, conservation authorities, adjacent regions and other levels of government have also been developed.

Currently about 150 staff beyond the Geomatics branch trained through internal courses have customized ArcView installed on their local machines. In late 2004, dedicated GIS servers were acquired, and in 2005 all corporate data was migrated to ArcSDE geodatabases. Enhanced access to layer files and templates through the “self-service environment” simplifies map creation for users, and substantially reduces the time required to produce a map. Layer files, templates and feature classes have metadata documented to FGDC standards. Remote access to ArcView is also available using CITRIX technology over the internet.

Staff who are not ArcView users access GIS three ways:

- Through a map library folder about 250 maps are available for internal use with metadata.
- Internet mapping is used extensively by staff. Password-protected views are for internal use; public views enable communication of projects externally. Tourism, social services and infrastructure views are embedded in specific websites.
- Staff access GIS services through an automated request form that alerts appropriate Geomatics staff by e-mail.

GPS applications collect data to populate asset and facilities management databases. Other applications link to GIS or export from GIS through automated extraction processes.

The Geospatial Information Infrastructure extends beyond the corporation through the YorkInfo Partnership, Web Map Services and FTP sites.

With 12,000 parcels and 250 roads added in 2005, every Regional department needs geospatial products to manage operations and growth. Ensuring access to current quality

information and tools has enabled data sharing and eliminated duplication, therefore realizing cost savings/cost avoidance and creating efficiencies. For example:

- Orthophotography views and measure tools on YorkExplorer reduced the number of field visits by maintenance crews to determine road edge conditions and road sign placement, producing savings for the Road Operations Branch.
- GPS collection of street trees using an ArcPad application enables management of a valuable natural heritage resource that previously was difficult to quantify.
- A speed zone mapping application that dynamically links a speed zone database to an ArcView project has replaced several hundred written bylaws with a single map schedule bylaw that is far more efficient to maintain for the T&W Department, the Legal Branch and the Clerk's Office.
- The YorkExplorer views improve knowledge sharing by enabling departments to collaborate on existing or planned resources and infrastructure, i.e. the T&W department is now aware of environmental zones affected by road development, and the Transit branch is aware of current and proposed development areas, enabling route planning on a regional basis.
- Before the creation of a property notification application, T&W staff and consultants spent large amounts of time building lists of residents to fulfill EA and public meeting obligations - now this is completed in minutes.
- Improved citizen outreach and public involvement was achieved through embedding web map views infrastructure project websites, enabling residents to determine whether they were impacted, and directing their input into different channels based on their address.

The Silver Award for Best Web GIS reflects the design and utility of York Region's internet mapping services. YorkExplorer reflects the design standards of the York Region website. It offers a suite of internet mapping applications, with varying degrees of complexity so that novice and experienced users can access geographic information about York Region. Help screens and on-line tutorials provide instruction in clear non-technical English. Users report that they like the system.

YorkMaps .pdf files can be large (typically 3-20mb), so ease-of-use is ensured by providing thumbnail images, page-sized jpeg images, and the original dimensions, before the user downloads the full .pdf file. 50 maps are currently available, in categories that break the listing into manageable themed collections. An additional 150 maps are in queue to be published in June.

The sophisticated YorkAtlas viewer provides interactive analytic capabilities, with access to a wider array of Moximedia controls that experienced users prefer, complete with drill-down identify, complex query builder, and mark-up tools, as well as session save and e-mail capability.

York Locator provides drop-down selections for address, intersection, postal code and facilities in York Region as a simple way to query spatial data, and returns results in a

simple map interface. This provides the same ladder zoom and navigation controls found in many other internet map interfaces that novice users are likely to be familiar with. Printable maps complete with a legend and orthophotography background can easily be generated by the user. The YorkAtlas viewer can be accessed by clicking a tab in any YorkLocator view. The simple viewer is used in embedded internet services as well, i.e. infrastructure project websites.

The York Region internet mapping site ensures that the Region's geographic data holdings and products are accessible to users throughout York Region, and thereby helps strengthen the local economy, improve education in York Region's schools, and assists staff at the Regional and local level in their activities and decision-making. URISA presented the awards for Best Municipal GIS and Best Web GIS in recognition of the strengths and advances made in the Region's GIS and Internet mapping website. The Awards were accepted by Nancy Prout, Director of York Region's Geomatics Branch on behalf of the Region at the URISA Ontario 2006 Be Spatial Conference held on May 3rd, 2006, in Toronto.

The Geomatics Branch made two presentations at the conference, entitled "Transforming the Geospatial Infrastructure – York Region's Experience" and "State of the Environment Reporting Using GIS".

5. FINANCIAL IMPLICATIONS

This report is for information only, and therefore, there are no direct financial implications at this time.

6. LOCAL MUNICIPAL IMPACT

All local municipalities participate in the YorkInfo Partnership, which is an integral part of the enterprise GIS strategy and Geospatial Infrastructure for York Region. Staff in local municipalities also have access to YorkExplorer.

7. CONCLUSION

The Silver Awards from URISA for both Best Municipal GIS and Best Web GIS further recognizes the quality of Geospatial Infrastructure at York Region as well as the diversity and depth of skills within York Region's Geomatics Branch.

The Senior Management Group has reviewed this report.