

NO: R101

COUNCIL DATE: May 27, 2019

REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **May 23, 2019**

FROM: **Acting General Manager, Engineering**

FILE: **1345-01**

SUBJECT: **GIS and Cityworks Software Enterprise License Agreement Renewal**

RECOMMENDATION

The Engineering Department recommends that Council:

1. Authorize the renewal of two Enterprise License Agreements with Esri Canada Ltd. for three years, effective July 1, 2019, to provision Geographic Information System and Asset and Work Management System software;
2. Set the total three-year expenditure authorization limit for the contract renewal of the Enterprise License Agreements with Esri Canada Ltd. to \$2,205,945 (including GST); and
3. Authorize the Acting General Manager, Engineering to execute the contract renewal of the Enterprise License Agreements with Esri Canada Ltd. for a three-year term.

INTENT

This report seeks Council authority for a contract renewal with Esri Canada Ltd. (“Esri Canada”) to provide Geographic Information System (“GIS”) and Asset and Work Management System (“Cityworks”) software maintenance and licensing for a term of three years.

BACKGROUND

Esri is the world-wide market leader in GIS mapping and spatial analytics software. Esri Canada is the Canadian reseller of Esri-based GIS software, as well as Cityworks software, a computerized maintenance management system from Azteca Systems Ltd.

GIS software has been used by the City for mapping and analysis purposes for more than 20 years. In 2005, the use evolved significantly to also include spatial data maintenance and spatial data sharing through the release of COSMOS. Two years later, Cityworks software was implemented to bolster work, asset and maintenance management capabilities in many departments.

Today, hundreds of staff interact with GIS and Cityworks software every day. New data are regularly added to more than 200 asset inventories maintained by the Engineering, Parks, Recreation & Culture and Planning Departments, and the resulting information is integrated with other City business systems and shared on COSMOS, which is consistently in the top two most visited webpages on the City’s website.

DISCUSSION

Over the last few years, Esri Canada has invested heavily in evolving their software to provide more cloud-based tools and functionality, which the City has already leveraged to develop new custom solutions such as:

- MVA Video Operational Dashboard;
- Economic Development Site;
- Coastal Flood Adaptation Story Maps;
- Fire Dispatch Operational Dashboard; and
- Capital Construction Web Map.

Esri Canada GIS and Cityworks software capabilities have also expanded to provide significant “field worker” solutions, i.e., applications that can be run on phones or tablets in the field to do everything from creating a new inventory of all street signs to conducting regular maintenance and inspections of City facilities. The software has evolved to the point where development of these solutions can be done by many staff, not just experts in the GIS Section. This enables more of these useful tools to be created to support continuous improvement.

GIS and Cityworks software are made available to the City through two distinct Enterprise License Agreements (“ELA”). These are described below, along with a discussion on pricing and evaluation.

GIS Enterprise License Agreement

Pricing for the GIS ELA is based on software utilization, i.e., the content and quantity of software used by the City. Licenses are required for enterprise servers, for key staff workstations and for software staff utilizes via the web.

Cityworks Enterprise License Agreement

Esri Canada also offers an ELA for Cityworks, developed by Aztec Systems Ltd.; however, pricing for this product is based on the population of the municipality served and the software extensions included, not by utilization as the GIS software is. The City currently uses the Standard Cityworks Server AMS Package, with the Service Request, Work Order and Inspection API extensions. Applications included in the Standard Package can be installed on any number of staff workstations throughout the City and have unlimited, simultaneous use.

Pricing

Total annual costs for GIS and Cityworks is provided below (all values include GST).

ELA	2019	2020	2021	Total
GIS Software Cost	\$404,250	\$420,000	\$435,750	\$1,260,000
Cityworks Software Cost	\$306,495	\$315,210	\$324,240	\$945,945
Total Annual Cost	\$710,745	\$735,210	\$759,990	\$2,205,945

GIS and Cityworks Software Alternatives

Esri-based GIS software and Azteca's Cityworks software are heavily embedded in the City's overall system architecture and are significantly integrated with many business processes. Appendix "I" provides an information graphic depicting the magnitude of GIS integrations at the City, authored by Spatial Vision Group, an independent GIS Consultant commissioned by the City to identify GIS software alternatives. While other GIS software are available, the review found no competing vendors that offer the same enterprise suite of software on the scale of Esri-based products. The report also states that Esri is the world-wide market leader of GIS vendors, with over 43% market share.

Furthermore, replacing this software with an alternative product would require significant time and cost, and may impact operations and delay some initiatives.

Legal Services Review

Legal Services has reviewed the ELAs as well as the content of this report and has no concerns.

SUSTAINABILITY CONSIDERATIONS

Renewal of GIS and Cityworks software ELAs support the objectives of the City's Sustainability Charter 2.0. In particular, this contract renewal relates to the Sustainability Charter 2.0 theme of Infrastructure. Specifically, this contract renewal supports the following Desired Outcome ("DO") and Strategic Direction ("SD"):

- All Infrastructure DO1: City facilities and infrastructure systems are well managed, adaptable and long lasting, and are effectively integrated into regional systems; and
- All Infrastructure SD1: Proactively manage community assets to maintain them over the long-term in a state of good repair.

FUNDING

Funding for the ELA contract renewal is available within the Corporate Services Department's Operating Budget.

CONCLUSION

Based on the above discussion, it is recommended that the City renew its Enterprise License Agreements with Esri Canada to provision GIS and Cityworks software for a three-year term at a total three-year expenditure authorization limit of \$2,205,945.00 (including GST).

Jaime Boan, P.Eng.
Acting General Manager, Engineering

JB/BM/cc

Appendix "I" – Scope of GIS at City of Surrey

Scope of GIS at City of Surrey



Figure 1 – Onion Diagram: How the City of Surrey Uses GIS In-House and Across the Community