

Service Business Plan



Service Name	Geographic Information and Mapping	Service Type	Internal
Service Owner Name	Ann Evans	Budget Year	2017
Service Owner Title	Coordinator of Geomatics		

Service Description

An internal service to provide orthoimagery services, land records management, 3-D visualization, title searching and topographic mapping.

Current State

Customers & Their Expectations	<p>This service is delivered to:</p> <p>City staff, Council, external agencies and the general public.</p> <p>Geographic Information and Mapping Service customers expect:</p> <ul style="list-style-type: none"> • Efficient access to data and map production services • Timely response to issues and requests • Convenient project support • Complete, accurate and consistent data delivered cost-effectively • Knowledgeable staff
Existing Service Delivery	<p>This service is responsible for:</p> <ul style="list-style-type: none"> • Creating, acquiring, maintaining, coordinating and distributing geospatial data • Providing project coordination and support services to enhance business processes • Researching potential investments in geospatial data and technology • Developing new map applications and integration tools to enhance business processes at the City • Providing customer support for property-related enquiries • Providing mapping and support services for the Emergency Operations Committee • Capital Works web content management, including online mapping services • Managing Capital Works-related documents, including plans and reports • Custom map production and plotting services for City staff and the public • Creating awareness and promoting the use of technology
Existing Customer Engagement Tools / Methods	In-person meetings with staff; website feedback; by phone (via dedicated line); email; surveys; open data portal; internal work shops and events; training sessions
Is this Service Provincially Legislated?	No N/A
For this Service are there Approved Service Standards?	No N/A

Sub-Services

Property/Land Information Service	<p>Provides and maintains property record data in corporate systems.</p> <p>Reviews municipal addressing and ownership information.</p> <p>Contracts and/or carries out data collection assignments.</p> <p>Provides Engineering-related records management support.</p>
Data Management Service	<p>Develops and maintains data as an asset.</p> <p>Creates and/or licenses, maintains, documents and shares a variety of data.</p> <p>Supports core applications and performs spatial analysis for better business and strategic decisions.</p> <p>Provides data support and technical expertise during implementation of technology.</p>
Map Production Service	<p>Creates, presents and publishes graphics, charts or maps to meet specific customer requirements.</p> <p>Provides equipment support and print materials.</p>

Recent Continuous Improvement Initiatives

In 2014-15, the service coordinated projects that involved creating and acquiring new datasets to support Corporate Asset Management planning. The result was a more accurate inventory and condition status of tangible capital assets.

In 2015, the service agreed to contribute to the Community Maps Program. Providing our corporate data results in more accessible data, ensured higher levels of basemap accuracy and enhanced sharing and collaboration between City service areas and external agencies. The new base map data was deployed across all external-facing map applications.

In 2015, the service acquired high resolution digital aerial imagery to help update location-based data and to use for visualization purposes. The result was more up-to-date data and better base information for displaying maps to the staff and public.

In 2015, the service conducted a review the OpenBudget (financial transparency tool) pilot project, supporting the Financial Management Service through the E-Government Open Data program.

In 2015, formed a corporate oversight committee that fits into the Information Technology Service's enhanced decision-making model (IT Governance). The new committee facilitates communication, prioritizes requests and puts forward projects requiring investment to ensure value and alignment with City goals and objectives.

In 2016, the service used Service desk to track and manage requests for service. Service desk allowed Geomatics staff to provide timely response to customers letting them know when we received their requests, status updates on the request and notification when the request was complete. It also provided a means to track and document requests for yearly reporting.

In 2016, the service implemented new applications to improve GIS service for our Emergency Operations Centre. The use of new ESRI dashboards to display real time events for an emergency adds value to the GIS service in conjunction with our standard GIS service provided (hard copy maps, ArcGIS analysis).

In 2016, the service implemented a system to automate the translation of CAD to GIS using a standard template. The result was a better process for receiving, verifying, translating and integrating CAD data into our GIS system providing enforcement of standards, improved productivity and more reliable data.

Emerging Opportunities and Anticipated Risks

Emerging Opportunities

Implementation of an Enterprise License Agreement with ESRI providing unlimited access to core ESRI software while providing both immediate and long term cost savings. Aligning with the strategic direction of 'An Engaging City', an ELA will promote widespread GIS application development and result in more efficient operations for the Geographic and Mapping service.

There is an opportunity to engage in an Enterprise Advantage program with ESRI which will put in place a framework for ESRI to provide us with strategic technical advice through a dedicated ESRI Senior strategic advisor. Technical staff will also have access to professional technical staff at ESRI to model new processes efficiently. This again aligns with 'An Engaging City' allowing us to deploy state of the art GIS solutions.

Explore the strategic alignment of Asset Management Service and the Geographic Information and Mapping Service.

The internal and public services are increasingly aware that tools exist to visualize, analyze and enrich the data they own. Using these tools will help achieve efficiencies, communicate information, engage citizens and generally support more informed decisions.

There are opportunities to build upon our existing geospatial datasets by developing new internal applications and coordination of data acquisition/data collection projects.

The role of the Geographic Information and Mapping service can be expanded beyond traditional uses within Development and Infrastructure. The service can be used to support a variety of government functions and provide the opportunity to minimize costs and maximize benefits for the City's investments.

Anticipated Risks

Resource usage will increase with the growing number of corporate systems, applications and datasets.

Data integrity and reliability poses a risk due to the increasing volume of data being managed. The data supports a wide range of business applications, which are used to make important business and strategic decisions.

Customers have come to expect near real-time access to data, which will require new systems and processes. The Information Technology Service will be depended on to provide the support necessary to use new technologies and assist with process improvements.

Reaching "greenfield build-out" means the City will be growing in a different way in the future. Infill developments are typically more complicated and changes take place faster. As a result, Geographic Information and Mapping will need to improve technology and staff response time.

Service Objectives	Target Completion
Expand the use of ArcGIS Online (AGOL) to enhance our current external Burlington Maps pages. Make use of available template and web application builder making our web applications available to both browser and mobile devices.	Jan 2017
Formalize a 3D visualization strategy to support service areas involved in community development. This will be based on the first phase of the creation of a computer 3D model of the downtown area. The model will be used as a communication and engagement tool to visualize new developments downtown and in other growth areas. Includes the development of a submission protocol and standards for future model growth.	Feb 2017
Implement a field asset data collection and inspection program to support the Asset Management service. Access to technology and real-time data in the field will improve efficiencies and the accuracy and reliability of data.	Apr 2017
Develop a quality assurance plan to ensure data integrity and manage risk due to errors. Make use of FME software and/or ESRI scripting to run processes that analyze and report on data in our GIS. Areas to review include accuracy in both position and attribute, age of data and errors caused through processing of data.	Sep 2017
Conduct a Corporate GIS Strategic Review. The purpose of this review will be to present a recommended strategy for the continued advancement of GIS use for the City. Objectives are to identify opportunities for the future and review current GIS services and infrastructure in place. An alternative to a Strategic review could be implementation of an Enterprise Advantage Program with ESRI which would give us access to a dedicated ESRI Senior strategic advisor. Through this advisor we could map out opportunities to advance the use of GIS at the City.	Jan 2018
Enhancement of current Open data portal exploring new solutions to enhance the users ability to explore, visualize and download data. Provide enhanced government transparency through data and new web and mobile applications all available in a 'Hub' based environment.	Apr 2018

MEASURING SUCCESS

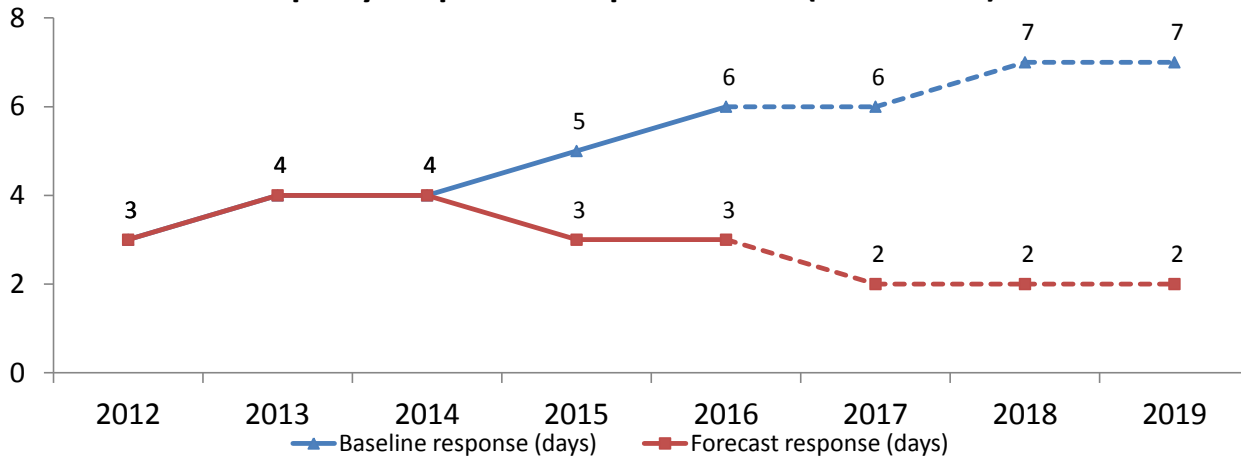
How much did we do?

Performance Measurement	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Projection	2017 Forecast	2018 Forecast	2019 Forecast
Total number of Property-related Requests for Information	N/A	N/A	365	357	543	554	565	576
Total number of mapping/data requests processed	N/A	N/A	620	650	431	439	448	457
Number of Datasets Utilized	N/A	200	200	223	231	242	254	266

How well did we do it?

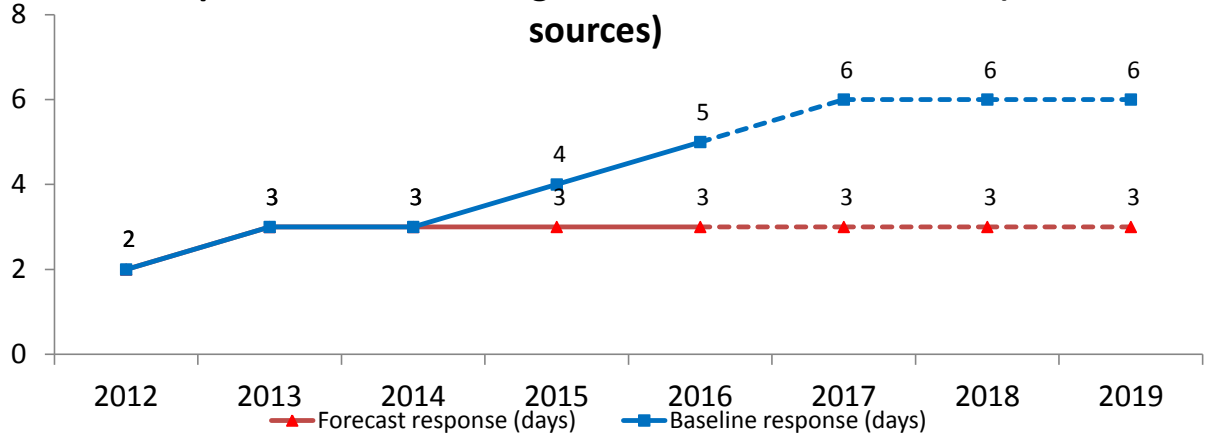
Performance Measurement	Property Requests- Response Time (all sources)
Story behind the data	<p>Property requests relate to City and privately owned land. The source of these requests can be internal or external. Requests typically fall into four categories: cadastral (surveys, plans, easements), addressing, deemed street width verification, or servicing.</p> <p>The amount of investigation required for each request varies. Requests are increasingly complex, and often rely on input from other service areas (Corporate Legal, Development Review) or external agencies (e.g. Teranet). As a result, the response time is steadily increasing.</p> <p>As of Q4 2015, the service is utilizing the ITS Service Desk tool as a means of improving workflows and updating/acquiring selective datasets. This should result in an improved response time as customers become accustomed to the change.</p>

Property Requests- Response Time (all sources)



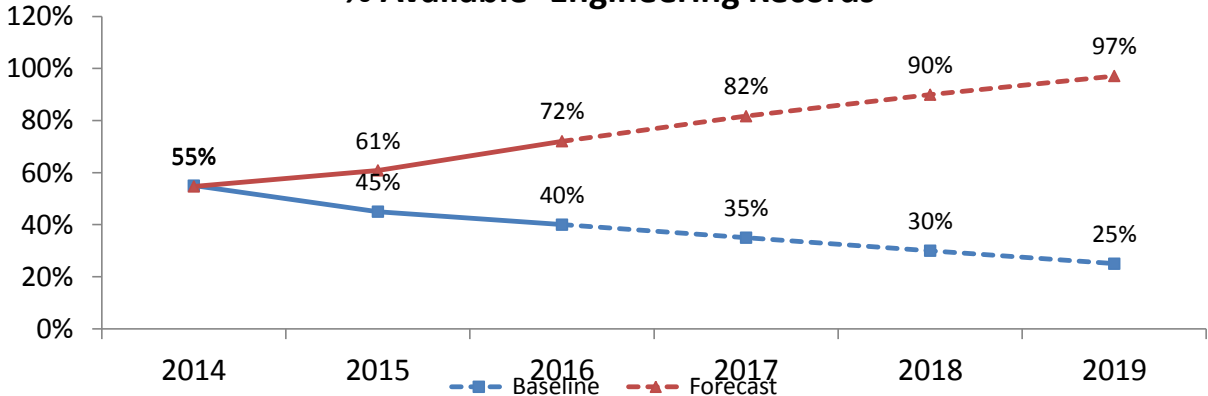
Performance Measurement	Map Production/Plotting Services- Turnaround Time (all sources)
Story behind the data	The service area receives several hundred unique requests each year for custom graphics, charts and maps. Requests that require detailed map production typically take multiple hours of dedicated time and effort. Plotting equipment and resources are essential to carry out this function, so equipment downtime results in production delays. The number of mapping and plotting requests is expected to continue to increase. Using existing staffing and resources, the goal is to improve the turnaround time for these requests with an improved process for prioritizing jobs (utilizing the Service Desk tool) and documenting projects that eliminates duplication of effort.

Map Production/Plotting Services- Turnaround Time (all sources)



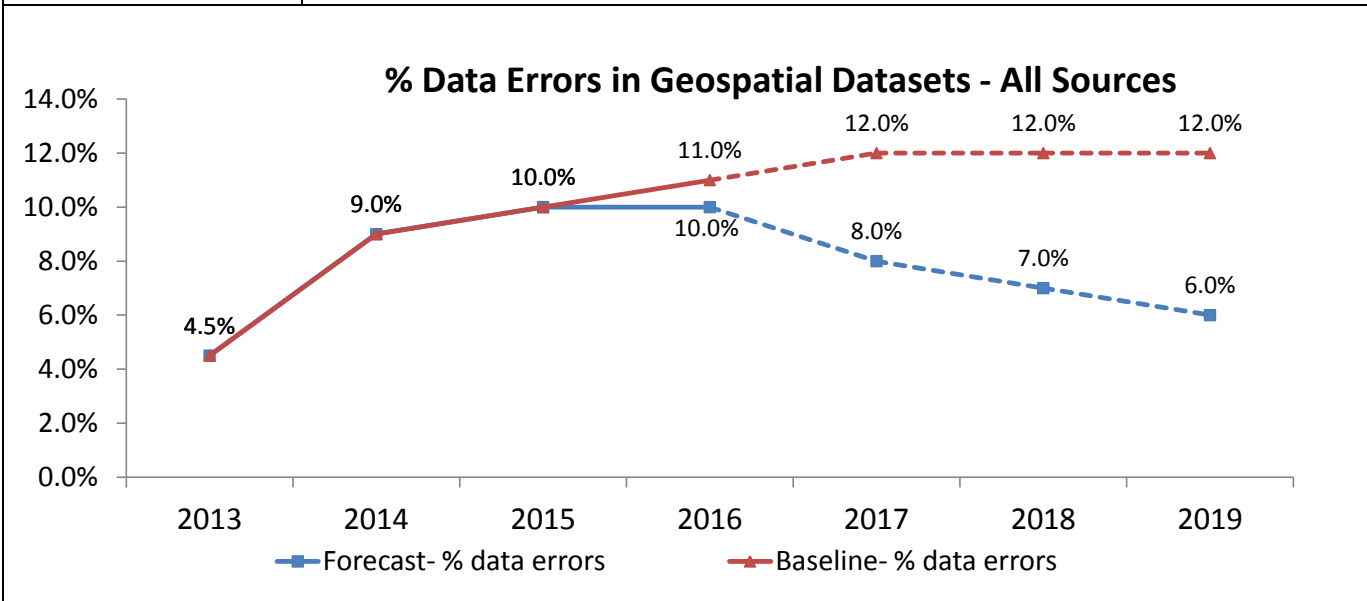
Performance Measurement	% Available- Engineering Records
Story behind the data	Engineering records consist of all plans, reports and documents that relate to capital works projects. The service uses a corporate system as the electronic records management tool for all documentation. The contuing plan is to manage the tasks related to this service, with the first priority addressing the backlog of records from 2011 to 2013. Documents need to be up to date and accurate with as-constructed information, as they are relayed to the public, staff, external consultants, contractors and agencies. The availability of records is also seen as an essential function for Business Continuity Planning within Capital Works.

% Available- Engineering Records

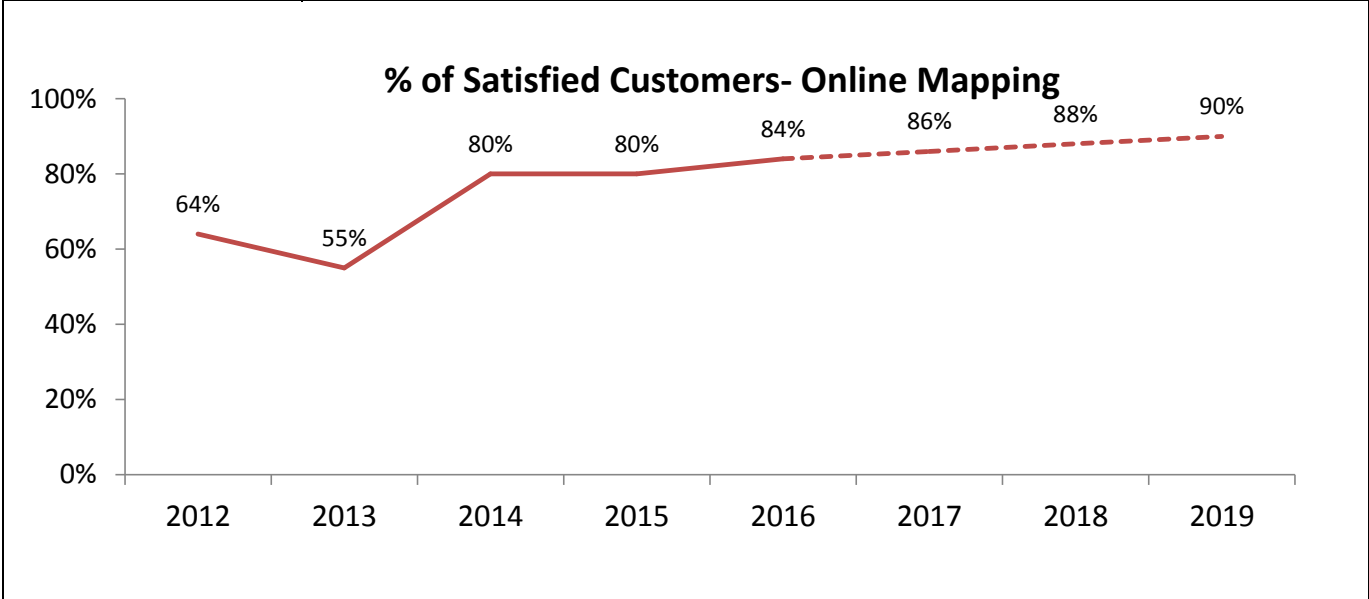


Is anyone better off?

Performance Measurement	Maximizing data integrity (% errors in Geospatial Datasets).
Story behind the data	<p>Data is used to make important business and strategic decisions and therefore needs to be current and accurate.</p> <p>Errors are routinely identified through rigorous quality control checks. Errors identified by internal users have a low impact, but errors identified by the public may embarrass the City and service area. Errors could also be found during construction project design or in the field. These errors represent a more serious risk, and could lead to change order, increased costs, delays or even potential risk to public safety.</p> <p>The current issues surrounding "big data" – the growing number of datasets managed – means that the percentage of errors will likely grow if quality control processes cannot keep pace.</p>
Where do we want to go?	The goal is to build upon the existing quality control process to identify and correct data issues sooner. Quality control tasks will be further defined and documented. The service intends to start using FME to automate identification of errors and to potentially correct errors where possible.



Performance Measurement	Percentage of satisfied web mapping users (public access to Geographic Information System data).
Story behind the data	Before 2014, the mapping service provided on the City’s website was outdated and under-used. Public opinion of the application was generally negative. The web-mapping service is the public portal for geospatial data, and it is important that it is presented properly and functions in a way that assists the public. Visualization of the data and ease of use is very important.
Where do we want to go?	<p>The existing web-mapping service was replaced in Q3 2014. Internal staff developed an interactive mapping website (BurlingtonMaps) as part of an e-Government initiative. The new website contains a series of map applications that provide the public with enhanced viewing and functional capabilities.</p> <p>New applications have been created with a focus on maps that tell a specific story, or present a more dynamic visualization of the supporting data. The availability of new online map templates will guarantee that new map applications can be published on an ongoing basis.</p> <p>The result should be a sustained increase in public satisfaction with the external map service.</p>



SERVICE RESOURCE SUMMARY

GEOGRAPHIC INFORMATION MAPPING

Service Description

An internal service to provide orthoimagery services, land records management, 3-D visualization, title searching and topographic mapping

Service Owner Name

Ann Evans

	2015	2016		2017 Proposed				
	Actual	Budget	Year End Projections	Base Budget	% Change vs. 2016 Budget	Business Cases	Total Budget	% Change vs. 2016 Budget
Human Resources	\$ 584,301	\$ 501,400	\$ 501,400	\$ 508,139	1.3%	\$ -	\$ 508,139	1.3%
Operating/Minor Capital Equip.	\$ 15,264	\$ 9,000	\$ 9,000	\$ 9,000	0.0%	\$ -	\$ 9,000	0.0%
Purchased Services	\$ 92,415	\$ 13,635	\$ 14,585	\$ 13,950	2.3%	\$ -	\$ 13,950	2.3%
Corp. Expenditures/Provisions	\$ -	\$ -	\$ -	\$ -	n/a	\$ -	\$ -	n/a
Internal Charges & Settlements	\$ -	\$ -	\$ -	\$ -	n/a	\$ -	\$ -	n/a
TOTAL EXPENDITURES	\$ 691,980	\$ 524,035	\$ 524,985	\$ 531,089	1.3%	\$ -	\$ 531,089	1.3%
Controllable Revenues	\$ (3,187)	\$ (2,500)	\$ (2,500)	\$ (2,500)	0.0%	\$ -	\$ (2,500)	0.0%
General Revenues & Recoveries	\$ (107,620)	\$ (7,000)	\$ (9,321)	\$ (11,200)	60.0%	\$ -	\$ (11,200)	60.0%
TOTAL REVENUES	\$ (110,807)	\$ (9,500)	\$ (11,821)	\$ (13,700)	44.2%	\$ -	\$ (13,700)	44.2%
NET OPERATING BUDGET	\$ 581,173	\$ 514,535	\$ 513,164	\$ 517,389	0.6%	\$ -	\$ 517,389	0.6%