

# THE REGIONAL MUNICIPALITY OF YORK

Committee of the Whole  
Planning and Economic Development  
September 12, 2013  
Report of the  
Executive Director, Corporate and Strategic Planning

## OPEN DATA FOR YORK REGION - MOVING FORWARD

### 1. RECOMMENDATIONS

It is recommended that:

1. Council approve the Open Data principles (*Attachment 1 – Open Data Principles*).
2. Council approve an Open Data Program for York Region.
3. The Commissioner of Finance be authorized to amend the Schedule of Fees and Charges as required to reflect free access to datasets as the Open Data Program is implemented.

### 2. PURPOSE

This report seeks Council approval of an Open Data Program for the Region. It also provides the results of an Open Data pilot project.

### 3. BACKGROUND

**Open Data is government data made freely available to the public and business community for download in commonly accepted formats**

“Open Data” is about the release of data maintained by government without charge, through on-line catalogues to the community and private sector so it can be used in new and innovative ways. A set of principles define what constitutes Open Data (*Attachment 1 – Open Data Principles*). Once downloaded, Open Data can be used for any purpose, and can be passed on to others in its original or converted form. Businesses are permitted to use it for their own business purposes, and also to modify or add value to data, for example by combining data from many jurisdictions so that it is available for broader analysis. Ontario’s Information and Privacy Commissioner advocates “that government-held information should be made available to the public, and that any exceptions should be limited and specific”.

## **Open Data has already been adopted by many jurisdictions, including neighbouring municipalities**

An environmental scan indicates many Ontario municipalities have Open Data programs, and several more are in the process of adopting them. Toronto launched its Open Data website in November 2009. Ottawa, London, Hamilton, Mississauga, Guelph and the Regions of Waterloo, Peel and Niagara have established Open Data websites. Edmonton and Vancouver are collaborating with Toronto and Ottawa to establish common standards for Open Data. In Ontario, a Public Sector Open Data working group was recently brought together by the Ministry of Government Services, with municipal participants from jurisdictions with Open Data sites. York Region staff participate in this group. Statistics Canada reported that data usage doubled since announcing an Open Data program in February 2012. The federal government negotiated with provincial governments on Canadian standardized licensing for Open Data. Australia, the US, and the UK have national Open Data policies in place.

## **Council adopted an open data objective as part of Vision 2051**

The Open and Responsive Government section of *Vision 2051*, adopted by Council in 2012 (PEDC May 2, 2012), identifies Open Data as an action area under Open Government: “Facilitating information sharing and open data so the broader community can benefit and add value to data collected and maintained by government without restrictions on how it is used.”

York Region already makes data available to the public. Some of it is accessible for download through specific program pages on the York Region website, while other information is either available for free on request, or is available for an administrative charge set under the Schedule of Fees and Charges. Data is frequently provided to consultants working on behalf of the Region at no cost. Anyone can also make a request for any data the Region holds that does not contain personal information under the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA).

## **York Region set-up a pilot Open Data site in 2012 to determine resourcing, benefits, risks, and develop recommendations on how to move forward**

In November 2011, the Region’s Senior Management Team approved a pilot Open Data project, and asked staff to develop recommendations for a corporate-wide Open Data program. During 2012, Regional staff:

- developed a governance framework and process for reviewing data to ensure that privacy and intellectual property concerns were duly accounted for
- reviewed an Open Data license
- selected and reviewed candidate mapping data
- published the data so that other organizations, businesses and the public could download the data directly from the York Region website

In October 2012, York Region launched a pilot Open Data site with 11 mapping datasets. Since October, additional mapping datasets have been added to the site. As part of the pilot project, stakeholder education and consultation workshops were held with York Region staff, the business community, and local municipal Chief Information Officers (CIOs) and Clerks. The experience gained from the Open Data pilot, and consultations with stakeholders and neighbouring municipalities, forms the basis for the recommendations of this report.

## 4. ANALYSIS AND OPTIONS

### LESSONS FROM OTHER OPEN DATA PROGRAMS

#### **Community benefits to Open Data include apps, better information available to small business and NGO's, and better understanding of government programs**

Open Data groups of Information Technology (IT) professionals have formed across the GTA. These non-governmental organizations (NGO's) advocate for data catalogues, create applications based on the data, and interpret the data in novel ways. Transit schedule data, for example, has been used to create Smartphone applications showing next bus arrival, with the municipality avoiding the cost of creating the application. Transit-oriented applications are among the most frequently developed. In some jurisdictions government has kick-started this development by holding contests to develop applications that utilize government data, and present it to citizens to use in their daily lives. Ottawa, for example, organized its second Open Data application development contest in 2013, called Apps4Ottawa Reloaded, after the success of its first contest in 2010-2011. NGO's are able to combine government data with other data sources, and interpret it in new ways that sometimes are not apparent from the perspective of staff working on a government program. This adds value to the data.

The most commonly downloaded datasets from Ontario municipal Open Data websites include TTC live feeds and neighbourhood statistics in Toronto; roads, places of interest and demographic data in Peel Region, transit, cultural and restaurant inspection data in Niagara Region. The download frequency for individual datasets changes over time.

Making authoritative government data available enables private sector businesses to add value to it, rather than trying to duplicate it, which reduces their costs and helps them grow. Small businesses and NGO's who lack the resources to duplicate it themselves are able to take advantage of the data. Being able to easily access and re-use the data enables smaller organizations to make better decisions. Within government, Open Data reduces the staff effort and associated costs in distributing data and administering data licenses one request at a time, as data users are able to self-serve.

There is also a non-economic benefit in government being seen as open and transparent, fostering greater trust. Some of the value lies in promoting greater participation and

understanding of government. For example, London Ontario published budget information through its Open Data site. The city held an Open Data contest to engage citizens to create a web-based application or "app" to make it easier for the public to understand the city's 2012 budget. There is also value in increasing transparency by proactively making requested data broadly available to everyone through an Open Data site, rather than responding individually to Freedom of Information requests.

### **Establishing a solid process for publishing data, including communications to officials before it is released, mitigates risk**

This section of the report briefly reviews generic risks – specific responses for York Region are covered in the section on the proposed York Region Open Data Program.

The largest risk associated with Open Data is inadvertently exposing personal information, which has legal implications relating to MFIPPA legislation. Another risk is inadvertently publishing third party data the government does not own. These risks can be mitigated by rigorously vetting data before publication.

Outdated data feeds the perception of municipal government as inefficient. Careful attention to creating descriptions of data (metadata) which indicate how often it is updated, with update schedules determined in advance mitigates this risk.

Once data has been published, subsequent updates should also be reviewed for problems. Data related to programs where media scrutiny is more likely may require additional attention. Mitigation of these risks includes an integral communication strategy, so that officials are made aware in advance of data releases, and are therefore prepared for media inquiries.

### **Council endorsement and staff education help ensure the success of Open Data programs**

Council endorsement of Open Data and staff education plays an important part in ensuring the institutional success of Open Data programs.

Involving community groups in the process of prioritizing which datasets are published can increase trust in the process. In some cases context information may have to be prepared to make it understandable (expenditure information might be an example), which will slow its release.

## YORK REGION EXPERIENCE WITH OPEN DATA

### **Open Data pilot site was launched in October 2012 and has been well received**

During 2012, Regional staff conducted an environmental scan of Open Data practices in other municipalities, and created a preliminary governance framework and process for reviewing data for publication. A pilot Open Data website was launched to determine how Open Data could work in the Region. The pilot Open Data site focused on mapping data, because this data is already structured for use by other agencies (it is shared with local municipalities), and descriptions of the data (metadata) have already been created. Mapping data is typically the first data that any jurisdiction releases when it starts an Open Data program.

A central principle of Open Data is that its use is not restricted. To enable unrestricted use, the Region used the Open Data license developed for the UK Open Data program, with slight modifications (*Attachment 2 – York Region Open Data License*). Similar wording, based on the UK license, is also used by other municipalities across Canada. The license is brief and is in plain English.

The Geographic Information Services Branch was able to adapt data discovery software to allow downloads directly. The software will support a fully automated Open Data site.

### **Already data has been downloaded over 2,500 times. Roads and parcel data have been the most popular downloads**

Between October 2012 and July 2013, mapping data have been downloaded over 2,500 times. Roads and parcel data have been the most popular downloads. Initial feedback from businesses, local government staff and individual users has been positive, appreciative of the ease of using the site and how quickly they are able to obtain data without having to sign data license agreements every time they need data. While specific statistics on downloads are not available yet, local municipal partners download road and parcel data to have current information, where previously they had to wait for a quarterly update. Consultants download mapping data, including contours, to plan infrastructure projects. Teachers have downloaded data for hands-on geography classes. Carleton University Library created a link page featuring York Region Open Data.

### **Consultation with stakeholders for Open Data pilot showed demand for information exists**

Three workshops were held as part of the Open Data pilot, to gauge different stakeholders' interest in Open Data. Staff reaction to the idea of Open Data was enthusiastic, with staff reporting they could reduce the time taken to respond to individual information requests if the data was available through an Open Data site. Business stakeholders in the GIS, planning and development sectors provided important feedback on what data formats would be useful to them, and what datasets they would like to see.

Significantly, they asked that data be made available from both the Region and local municipalities, preferably through a single access point. CIOs and Clerks from the Region's local municipal partners expressed a willingness to work with the Region, and saw benefit to easier data exchange.

### **A central Open Data page as part of york.ca makes it easier to find data to download than through existing channels**

A review of information currently available from York Region demonstrated that, while the Region already makes some data freely available through the York.ca website as free downloads from different program pages, it is hard for potential users to find these datasets, or to know who to contact to purchase data available under the Schedule of Fees and Charges. Regional datasets are thus much less likely to be accessed than they could be. In consequence partner agencies, NGO's, and private businesses across York Region are spending time and resources needlessly duplicating or assembling data from other sources.

## **AN OPEN DATA PROGRAM FOR YORK REGION**

### **An Open Data Program provides the foundation for self-service access to information that benefits all stakeholders equally**

A Council-endorsed Open Data Program will commit Regional staff to making meaningful data collected and maintained by the Region accessible to other stakeholders for free. A searchable Open Data catalogue, as a recognizable part of the York.ca website, will put all available downloadable data into one place for easy access, covered by a single data license. Making data available through a single catalogue makes it more likely the information will be discovered and used. No group has privileged access to information because of cost, and access to information originating with different branches and departments becomes consistent. This moves getting data from the Region into the self-service realm, raises the profile of the Region as an information source, and reinforces the public service orientation of the Region.

### **Incremental approach to implementation assists departmental resource management, but is still responsive to community requests**

While the goal of an Open Data program is to publish all non-confidential information a government holds (*Attachment 1 – Open Data Principles*), in practice most municipalities add to their catalogue of published data incrementally over a period of years. Toronto, for example, has released approximately 120 datasets in four years.

A cross-department Open Data Advisory Group developed an initial three year plan of data to be released. The initial data release plan will focus on making information that is already available through program web pages, the Schedule of Fees and Charges, or information that is regularly requested and supplied through phone and email requests,

accessible through a centralized York Region Open Data site. Examples of data already available include the York Region business directory, traffic counts, transit schedules and census information. Adding these datasets to the Open Data site will make them much easier to access on a self-serve basis. This approach makes best use of limited staff resources, and reduces staff effort associated with distributing datasets based on individual requests. Subsequently, each department will identify candidate datasets to prepare for Open Data. The Region will also establish a process for getting public input to prioritize additional data for release. Being responsive to the community does not mean however, that specific data requests are immediately acted upon, given the effort that may be required to get the data into publishable form.

### **Due to privacy, confidentiality and intellectual property considerations, oversight is required before departments post new data to be downloaded**

Preparing data will entail reviewing it for privacy, confidentiality and intellectual property restrictions, and applying any transformations necessary to put it into accessible formats. Appropriate data descriptions and context documentation will be prepared that help users understand what data is being released, reducing the likelihood of misinterpretation. As part of the Open Data publishing process, signoffs from appropriate authorities are required before data is published, including the Corporate Access and Privacy Officer. Where there are questions around intellectual property, the Regional Solicitor will provide guidance as part of the validation process.

### **Employing a regular, standardized communications brief will mitigate risks**

As part of the open data publishing process, a communications brief indicating what is to be published, what corporate initiatives it is related to, and any potential issues with the data will inform all Members of Council, Commissioners, Directors and Managers, so that they are prepared to answer any media questions that may arise. This process is similar to the practice adopted and refined over the past four years in Toronto.

### **Link To Key Council-Approved Plans**

*Vision 2051* explicitly addresses Open Data in the Open and Responsive Government section: “Facilitating information sharing and open data so the broader community can benefit and add value to data collected and maintained by government without restrictions on how it is used.” Adopting an Open Data Program will bring this part of *Vision 2051* to life. Access to data for the broader community through the Open Data initiative will make it possible for other stakeholders to make better decisions in relation to other Vision 2051 goal areas, and enhance their engagement with the Region.

The *2011 to 2015 Strategic Plan* also identifies Making Regional Services More User Friendly as a goal. Open Data fits well with the objectives of “Streamline customer access to services and information through implementation of no wrong door approach”, and “Increase number of service options offered (i.e. self-serve, online, etc)”. Open Data,

as a self-service online environment, will make it much easier for other levels of government, NGO's, businesses and the public to access information held by York Region that would be beneficial for them to use.

## **5. FINANCIAL IMPLICATIONS**

### **Revenue losses from Open Data are minor and are offset by staff time saved from handling data requests**

Currently York Region charges for some of its data. In the Schedule of Fees and Charges effective January 2, 2013 (Schedule A of By-law 2010-5), Business Directory data in electronic form is available at a cost of \$190.43. Data searches for Transportation-related data (e.g., automated traffic counts) by specific locations are made available at costs between \$79.35 and \$264.50. The total amount collected is approximately \$20,000, to recover the administrative effort for distribution.

York Region is unlikely to experience a decrease in Freedom of Information Requests, due to the nature of the requests currently being received. The economic benefits will far outweigh the minor revenue impacts. As part of implementing the Regional Open Data Program, the Commissioner of Finance will need to adjust the Schedule of Fees and Charges to reflect free access to York Region data.

## **6. LOCAL MUNICIPAL IMPACT**

Local municipalities in York Region have not yet made any formal decisions in relation to Open Data. As part of the pilot Open Data project local municipal CIOs and Clerks were invited to a workshop held at the Aurora Cultural Centre in December 2012. Markham's CIO participated in the pilot Open Data Advisory Group to establish a process for publishing data at the Region. Some local municipalities had staff attend the Association of Municipal Clerks and Treasurers of Ontario (AMCTO) session on Open Data held in Vaughan in October 2012. The interest in Open Data from local municipalities bears further exploration for collaboration opportunities. Feedback from businesses during the pilot workshop indicated that the value of information is greater if Regional and Local sources can be combined, and are accessible from a single point.

## **7. CONCLUSION**

Making York Region data accessible to the public, other levels of government, NGO's and the private sector will enable York Region to be the authoritative source for this data, and will raise the profile of regional government as a self-serve information source. A pilot Open Data project, focussed on mapping data, demonstrated that businesses and local municipal staff are interested in accessing and using data collected by the Region.

While there are risks associated with releasing data to the public, these can be mitigated through careful application of procedure for assessing adherence to MFIPPA legislation, sign-offs, and a communications protocol to ensure that all relevant management and Members of Council are apprised before data is released.

Implementation of the Region's Open Data Program will be incremental, and the community will be engaged to help determine priorities for publishing data.

There will be a minor impact on revenues collected under the Schedule of Fees and Charges. This will be offset by staff time saved in responding to individual data requests and data license agreements.

Local municipal staff were engaged as part of the pilot project. Their interest in Open Data bears further exploration for collaborative opportunities.

For more information on this report, please contact John Houweling, Director of Geographic Information Services at Ext. 1529.

The Senior Management Group has reviewed this report.

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Attachments (2)

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