

## Open Data Centralization and Policy Update

**Date:** November 21, 2023

**To:** Executive Committee

**From:** Chief Technology Officer

**Wards:** All

### SUMMARY

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As directed by City Council at its meeting on June 6, 2023, this report provides an update on developing and implementing a centralized platform and associated compliance standards to ensure that open datasets are made available on a basis consistent with the City's established policy for accessing open data. It summarizes the latest changes made to centralize data onto the platform and increase the frequency and quality of open datasets made available.

The City of Toronto is one of the Canadian pioneers of municipal Open Data. The [Open Data Portal](#), launched in 2009, the City's centralized platform for public access of City open data. Open Data is machine-readable data that is freely available, easy to access, and simple to reuse.

The City adopted an [Open Data Policy](#) (2011) and [Open Data Master Plan](#) (2018) which embrace open data principles and support the City's Open Government commitment to improve the delivery of services, make information more accessible and support initiatives that build public trust in government. The Open Data program also aligns with the [Digital Infrastructure Strategic Framework](#) (2022) which identifies democracy and transparency as principles and highlights the importance of open data.

Making it easier to bring data into the Open Data Portal, further embedding open data requirements as part of existing City processes and establishing a central open data intake system will further centralize City open data and improve the timeliness of open data releases.

As part of implementing a centralized platform and associated compliance standards for open data, the Chief Technology Officer will refresh the City's Open Data Policy, including enhanced roles and responsibilities for accountability, compliance and centralization of publishing data sets to the Open Data Portal.

## RECOMMENDATIONS

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The Chief Technology Officer recommends that:

1. City Council receive this report for information.

## FINANCIAL IMPACT

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Funding of \$949,228 for the Open Data Master Plan Implementation project is available in the approved 2023 Capital Budget and 2024-2032 Plan for Technology Services Division. In addition, funding of \$654,000 for planned work in 2024 and \$578,000 in 2025 has been included in the 2024 Capital Budget submission of the program for Council consideration.

Furthermore, funding for one permanent position with a cost of \$130,581 and \$25,000 for increased Cloud utilization costs has been requested in the 2024 Operating Budget submission for Technology Services Division to support the growth of the Open Data program.

Table 1: Financial Impact Summary

| WBS Element / Cost Centre & Cost Element# | 2023      | 2024      | 2025      | Total       |
|---|-----------|-----------|-----------|-------------|
| CIT045-32-02                              | \$949,228 | \$654,000 | \$578,000 | \$2,181,228 |
| IT2176 – 1015                             |           | \$130,581 |           | \$130,581   |
| IT2176 – 4828                             |           | \$25,000  |           | \$25,000    |
| Total Costs                               | \$949,228 | \$809,581 | \$578,000 | \$2,336,809 |

Should Council adopt recommendations with subsequent financial impact beyond the approved budget, additional resources required for those additional items would be included in future Capital and/or Operating Budget submissions for approval.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the information as presented in the Financial Impact Section.

## DIGITAL INFRASTRUCTURE IMPACT STATEMENT

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The Open Data program aligns with the principles of the Digital Infrastructure Strategic Framework ([DISF](#)), including the following Strategic Priorities:

### *Strategic Priority 2.2: Data Governance*

Open Data program efforts align to the principle of a Well-run City by enabling the delivery of high-quality, integrated City services, through improving how data is collected, shared, and integrated across multiple agencies for operational use, analysis, and evaluation.

### *Strategic Priority 5.2: Open Government, Transparency & Access to Information*

Open Data is a foundational component of Open Government and supports the City of Toronto in improving the delivery of services, making information more accessible and supporting initiatives that build public trust in government.

### *Strategic Priority 6.1: Open Source*

Core technology solutions and software utilized by the Open Data program, and that make up the Open Data platform, are open source and support the DISF principle of Digital Autonomy. Open source software is integral to digital autonomy as it contributes to interoperability and reusability of solutions; contributes to the avoidance of vendor lock-in; and promotes collaboration and sharing of solutions across public institutions.

### *Strategic Priority 6.3: Open Standards and Interoperability*

The use of open data encourages the use of open standards for data across City divisions and agencies that collect and process data. In addition, the Open Data program directly enables greater interoperability by providing data that can be easily shared and interfaces with multiple applications.

## **DECISION HISTORY**

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At its meeting on June 14, 2023, City Council considered item EX5.7 - "Open Data Centralized Platform and Compliance Standards" and requested that the City Manager report back in the third quarter 2023 with a report on developing and implementing a centralized platform and compliance standards to ensure that Open Data sets are made available on a basis consistent with the City's established policy for accessing open data, including open data to be practiced on transactional data streams like Kafka.  
<https://secure.toronto.ca/council/agenda-item.do?item=2023.EX5.7>

At its meeting on April 7, 2021, City Council considered item EX22.13 - "Open Data Requirement at All City of Toronto Standing Committees Boards and Agencies" and requested City Council direct the City Manager to implement mandatory open data requirements in all reports submitted to standing committees for the purposes of ensuring the City can continue to build its open data platform, and that Standing Committee Chairs monitor their agendas for compliance with this requirement.  
<https://secure.toronto.ca/council/agenda-item.do?item=2021.EX22.13>

At its meeting on October 7, 2019, the General Government and Licensing Committee considered item GL8.22 "City of Toronto's Open Data Portal - Historical and Current

Data" and directed the City Clerk and the Chief Technology Officer to authorize the Technology Services Division to publish all historical and current data embedded in documents, reports, or any digital artifacts that are available publicly on the City of Toronto's digital infrastructure to be made available on the City's Open Data Portal. <https://secure.toronto.ca/council/agenda-item.do?item=2019.GL8.22>

At its meeting on January 31, 2018, City Council adopted Toronto's Open Data Master Plan which provides a strategic framework, a list of actions and a roadmap for City staff to advance Toronto's vision for open data. <https://secure.toronto.ca/council/agenda-item.do?item=2018.EX30.12>

## COMMENTS

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### Toronto's Open Data Master Plan

In 2018, City Council unanimously endorsed Toronto's first Open Data Master Plan. The plan provides a strategic framework, list of actions and roadmap for City staff to realize Toronto's vision for open data and addresses the growth constraints and limitations identified in the program's early years.

The Open Data Master Plan provides a foundation for the City to increase the quality, speed and efficiency of open data available, leveraging industry-standard technologies to ensure a positive user experience. The benefits of the Plan are already clear; for example, when comparing the number of datasets available on the Open Data Portal prior to the plan (2009-2018), the number of datasets currently on the Portal has nearly doubled in half the amount of time.

### Improvements to Open Data Portal Centralization and Compliance

#### Centralization

The [Open Data Portal](#) is the City's centralized platform that enables public access of City open data. Though the amount of data available on the Portal has increased, equally important is the City's focus on improving update frequency, quality of data and the functionality of the technology platform. The Portal can receive updates directly from Divisional technology systems that are capable of connecting to open data publishing tools. Publishing directly from these City systems, where data is originally stored or collected, also helps ensure that the public is accessing the same data that the City uses for decision-making.

Foundational technology enhancements have greater enabled automated publishing of datasets directly from City systems to the Open Data Portal, allowing for publishing sustainability, program growth, and data centralization. Ongoing technology modernization efforts across the City provide avenues to accelerate open data releases and where open data can be further automated into the Open Data Portal by default.

The Open Data Portal also now automatically cross-publishes data from other City agencies into the Portal, such as Toronto Public Library and Toronto Police Services,

providing a centralized, one-stop-shop for the public. Making it easier to add data to the Portal and embedding open data requirements as part of the existing City process has helped to centralize City data.

Following Council's direction on item [EX5.7, "Open Data Centralized Platform and Compliance Standards"](#), the Open Data program, in collaboration with partners across the corporation, is exploring ways to use and improve tools for continuous data sharing as part of transactional data streams. This work is being undertaken as part of a broader analysis of divisional and corporate infrastructure to support data analytics environments and data management platforms. Opportunities to centralize transactional data streams on the Open Data Portal will also be investigated as part of these efforts.

The Open Data program is engaged with partners across the City as new applications, maps, and visualizations are created and posted on Toronto.ca. For example, the Housing Secretariat launched the [Toronto Housing Data Hub](#) in March 2023. This dashboard presents information on social and affordable housing stock, the Centralized Waiting List, applications for rental demolition and replacement, and the affordable rental housing pipeline. Alignment between the teams and business processes for creating the Toronto Housing Data Hub, which included the open data intake process, allowed for a series of open datasets to be released in tandem with the launch of the Toronto Housing Data Hub. The process to embed open data requirements more formally as part of intake processes is underway. This will further help to ensure that corresponding open datasets are released alongside launches of similar applications.

To further centralize the process, in April 2023, the Open Data program launched a central intake system for open data requests. This system improves visibility in tracking the status of an open dataset request as it moves through the publishing process and allows staff to identify process steps that require additional resources or supports to improve publishing times. This intake system also contributes insights to the development of compliance standards for the time it takes to publish an open dataset - from receiving a request to making the data available on the Open Data Portal. The Open Data program's goal is to provide the status information for open data requests to the public, first through an open dataset, followed by a public dashboard.

The capability to publish community-sourced datasets is also being investigated as part of the Open Data Master Plan. There is an opportunity for the Open Data program to support valuable community-led initiatives, like those in the civic tech community, by hosting validated community-curated datasets on the Open Data Portal. The Portal could then act as a central location for both City-sourced open data and select community-sourced data.

## **Compliance**

City Council's adoption of the Open Data Master Plan and the International Open Data Charter along with "Open Data Approval to Publish Process" enables the City to carry out its commitment to being Open by Default while ensuring that the security obligations are taken into account and the privacy obligations imposed by legislation are complied with. The Open Data Approval to Publish Process ensures that data released on the open data catalogue meets the City's obligations to protect privacy mandated by: the

Municipal Freedom of Information and Protection of Privacy Act (MFIPPA) and the Personal Health Information Protection Act (PHIPA).

The City's efforts through proactive disclosure, employee training on privacy and open data, embedding open data considerations as part of established business processes, (like requirements for new technology solutions), have enabled the City's catalogue of open datasets to grow to 261 datasets representing over 2000 data files. Embedding open data requirements as part of the intake processes for new solution development will also ensure further growth and the timeliness of open data releases. The recently established central intake system for "new open data" requests and "update open data" requests will also provide better visibility into the timeframe to prepare and release open datasets and help bring insights to the development of compliance standards.

At its meeting on April 7, 2021, City Council considered item EX22.13 - "Open Data Requirement at All City of Toronto Standing Committees, Boards, and Agencies" and requested the implementation of mandatory open data requirements in all reports submitted to Standing Committees for the purposes of ensuring the City can continue to build its open data platform and provide centralized access to this data. A process to better identify and track open data requirements as part of staff report forecasting is being developed. This process will proactively ensure that, where required as part of the Open Data Policy, data used to inform a report to City Council or its Committees be released in a timely manner on the open data platform.

### **Open Data Policy Refresh**

Toronto's first Open Data Portal was launched in 2009 with the Open Data Policy following in 2011. Almost 12 years later (at the time of writing this report) the policy needs to be updated to reflect the changes and growth of the Open Data program, its mandate, and respective roles and responsibilities.

An Open Data Policy refresh also provides an opportunity to ensure greater alignment with the City's [Digital Infrastructure Strategic Framework](#) (DISF) and ongoing corporate data governance activities. The DISF established a set of principles and guidelines to ensure that decisions the City of Toronto makes related to digital infrastructure are equitable and inclusive, enable high quality, resilient and innovative public services, enhance the quality of life and economic prosperity of Torontonians, prioritize privacy and security and protect transparency and democracy. The DISF explicitly identifies the importance of open data and its role in improving citizen engagement and innovation.

The process to update the Open Data policy will include significant public consultation and capture the spirit of co-development embraced in the creation of the Open Data Master Plan. An Open Data Public Advisory Group, made up of members of the public, was instrumental in the co-development of the Open Data Master Plan. An Open Data Public Advisory Group will greatly help in stewarding the public feedback received during consultations into a revised Open Data Policy and can provide ongoing contribution to the direction of the Open Data program.

## **CONTACT**

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## **SIGNATURE**

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