Agenda – Council – January 27, 2022

Report – Standing Policy Committee on Innovation and Economic Development – December 14, 2021

Item No. 1 Open Data Annual Report

STANDING COMMITTEE RECOMMENDATION:

On January 19, 2022, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Innovation and Economic Development submitted to Council:

1. That the report be received as information.

Agenda – Council – January 27, 2022

Report – Standing Policy Committee on Innovation and Economic Development – December 14, 2021

DECISION MAKING HISTORY:

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On January 19, 2022, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Innovation and Economic Development and submitted the matter to Council.

David Grant submitted a communication dated January 18, 2022, in opposition to the matter.

STANDING COMMITTEE RECOMMENDATION:

On December 14, 2021, the Standing Policy Committee on Innovation and Economic Development concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

ADMINISTRATIVE REPORT

Title: Open Data Annual Report

Critical Path: Standing Policy Committee on Innovation and Economic Development – Executive Policy Committee – Council

AUTHORIZATION

Author	Department Head	CFO	CAO
A. Burton	T. Gooch	N/A	M. Jack

EXECUTIVE SUMMARY

On September 30, 2020, Council requested the Public Service submit an annual report to Council detailing the progress of the City's Open Data program, to advise on the progress and successes of the preceding year.

Key achievements of the past year include:

- Council adopted the International Open Data Charter.
- Winnipeg is ranked third-most Open City in the Open Cities Index, having increased the overall score in 2020 from 75% to 96%.
- The Open Data program contributed to the Intelligent Communities Forum, which named Winnipeg "Intelligent Community of the Year" for 2021.
- The release of 25 new datasets, from the Linear Referencing System (a base map layer), to Winnipeg Fire and Paramedic Service Call Logs and Light Detection and Ranging (LiDAR) data.
- The fourth Open Data hackathon was hosted in a virtual space, with 30 participants, looking specifically at Public Works data.
- A Pembina Trails Early College (PTEC) collaboration with workshops and presentations to grade 9 and 10 students, which led to a student-built web application for parking information.
- The launch of the Voting Information System website, with Council vote records displayed in a friendly, searchable format.

RECOMMENDATIONS

That this report be received as information.

REASON FOR THE REPORT

On September 30, 2020, Council concurred in the recommendation of the Executive Policy Committee and adopted the following:

1. That the International Open Data Charter be adopted, to update the endorsement made in 2012.

2. That the City of Winnipeg continue to expand the Open Data program by releasing additional departmental data as outlined in the International Open Data Charter, while respecting privacy and security concerns.

3. That the Winnipeg Public Service be directed to submit an annual report to Council detailing the progress of the City's Open Data program, to advise on the progress and successes of the preceding year.

4. That the Proper Officer of the City be authorized to do all things necessary to implement the intent of the foregoing.

IMPLICATIONS OF THE RECOMMENDATIONS

There are no implications to receiving this report as information.

HISTORY/DISCUSSION

History

On May 30, 2012, Council adopted the following:

1. That the City of Winnipeg endorse the principles of:

    A. Open and Accessible Data - the City of Winnipeg will share with citizens, businesses and other jurisdictions the greatest amount of data possible while respecting privacy and security concerns;

    B. Open Standards - the City of Winnipeg will move as quickly as possible to adopt prevailing open standards for data, documents, maps, and other formats of media.

On March 20, 2013, Council adopted an Open Data Initiative which endorsed the principles of providing Open and Accessible Data that could be shared with citizens, businesses and other jurisdictions the greatest amount of data possible while respecting privacy and security concerns.

On June 25, 2014, Council approved the report "Open Government Initiative - Improvements to the Freedom of Information and Protection of Privacy Act Process" which directed the Winnipeg Public Service to implement a new process for Freedom of Information and Protection of Privacy Act (FIPPA) requests. This process would focus on the concepts of openness and

transparency in providing government data, while ensuring privacy and security of data for citizens and businesses, in keeping with the Open Data Initiatives adopted by Council.

On September 16, 2015, Executive Policy Committee (EPC) requested that the Public Service conduct a review of all City data sharing and identify opportunities to apply a machine-readable format, along with a review of security and privacy considerations, and report back. The Public Service's report on the matter was received as information at the February 10, 2016, meeting of EPC.

On November 25, 2015, Council approved a report outlining leading open government initiatives in other jurisdictions and broad recommendations on next steps for the City of Winnipeg in implementing open government principles.

On June 6, 2016, the City hired a full time Open Data Administrator to manage and promote the City's Open Data program. Having a dedicated staff member accelerated the City's Open Data program by focusing on new datasets, new collaborations and new projects built with Open Data.

On December 2, 2017, the City of Winnipeg partnered with North Forge to host the first Open Data Hackathon. A Hackathon is generally a code development event, open to interested members of the public, usually around a specific theme. The first Open Data Hackathon drew a crowd of around 50 people at the Red River College's Ace Project Space, and was well received by all. On March 3, 2018, another Hackathon was hosted with the same partners to celebrate 'Open Data Day', with similar results. In 2019, the City of Winnipeg partnered with Decision Works to try out a different venue and audience, again with very positive reactions. The City of Winnipeg has partnered with Decision Works since then, for 2020 and 2021, which was hosted virtually in response to the COVID-19 epidemic. The City of Winnipeg expects to continue the tradition of encouraging members of the public to use Open Data Hackathons as an opportunity to learn about Open Data.

On September 30, 2020, Council directed the Public Service to submit an annual report to Council detailing the progress of the City's Open Data program, to advise on the progress and successes of the preceding year.

Discussion

Open Cities Index

In 2015, the Public Sector Digest launched Canada's first Open Data benchmark – the Open Cities Index. This index measures the maturity of municipal Open Data programs by evaluating their readiness, implementation and impact. With no specific guidelines for what an Open Data program should be, the City used this survey as a rubric to develop the program. For 2015, the City of Winnipeg placed 20th. In 2016, the rank improved to 10th, relative to other Canadian cities. In 2017, Winnipeg jumped to third across Canada. After a pause in 2018, the 2019 score pushed Winnipeg to 2nd place. In 2020, the Open Cities Index was also expanded to all of North America, and Winnipeg was ranked 3rd. Although the City dropped a position in 2020, the overall score jumped from 75% to 96% (a near perfect score) due to the release of a number of new datasets, and increased engagement with the Winnipeg data community.

New Datasets

The core priority of the Open Data program is the release of new City of Winnipeg datasets of value to the community. Over the last 12 months, the Open Data team has released 25 new datasets, for a total of 184 now available. These datasets come from many different departments, either as new initiatives (for example, the LRS Road Network), or as a result of reviewing internal data that would be of value to stakeholders. The City continues to look for new datasets to release in order to fulfill the mandate set by Council of making the greatest amount of data possible to the residents of Winnipeg. Table 1, below, shows all the datasets that have been released since September 2020.

Table 1. Released datasets since September 2020

Name	Release Date	Description
Council Voting Data	2020-09-22	All votes recorded by council members in the Voting Information System
COVID-19 Public Health Orders Enforcement	2020-11-10	Report compiling inspections performed, as well as warnings and tickets issued, by COVID-19 By-Law enforcement officers
Bicycle Station Permanent Counts	2020-11-30	Usage counts from bicycle trails
Province of Manitoba - Potential COVID-19 Exposures	2020-12-10	Province of Manitoba provided reports detailing potential COVID-19 exposure areas
Housing Permit Inspection Statistics	2020-12-10	Annual reports on number of building permits issued, inspections performed, and defects found
Business Licenses	2020-12-18	All business licenses issued by the City of Winnipeg from 2019 to present
Province of Manitoba - Health Protection Reports - Winnipeg	2020-12-21	Province of Manitoba provided health inspection reports of food service establishments and water recreation facilities.
LeisureONLINE Activities	2020-12-23	All historical and current activities offered in the leisure guide
LeisureONLINE Activity Charges	2020-12-23	All charges issued for registering each leisure guide activity
Water Quality Test Results	2020-12-22	Yearly reports for water quality levels in Winnipeg
WFPS Call Logs	2020-12-29	Information on every call from 2015 to present in which Winnipeg Fire and Paramedic Service (WFPS) has responded with personnel.
Data Quality Score	2020-12-30	Meta dataset tracking quality scores for each dataset on Open Data
Rooming House Enforcement Activity	2021-02-04	Yearly report detailing complaints, investigations, and enforcements of illegal rooming activity by ward and neighbourhood
Annual Citizen Satisfaction Survey	2021-02-10	Results of the annual citizen satisfaction survey conducted by Corporate Communications

Trade Permits	2021-02-17	All trade permits issued by the City of Winnipeg since 2010
Census Values	2021-02-17	Statistics Canada Census information broken down by year, topic, subject, and description
Census Boundaries	2021-02-17	All geographic boundaries used in Statistics Canada Census reporting, by year
LRS Road Network	2021-03-05	Contains lines detailing Winnipeg's road network. Created based on the City of Winnipeg's Linear Referencing System
Pothole Repairs	2021-03-05	List of road repairs performed by the City of Winnipeg
Insect Control - Helicopter Flight Spray	2021-03-05	Lists areas covered by helicopter flight path during mosquito spraying operations
PPD City Owned Parcels	2021-06-02	All assessment parcels owned by the Planning, Property, and Development department
Walkways	2021-08-06	Geographic lines detailing all sidewalks and pathways maintained by the City of Winnipeg
Water and Waste LiDAR	2021-08-24	Contains Light Detection and Ranging data, otherwise known as LiDAR files created by the Water and Waste department. Each LiDAR file contains a point cloud with information on the longitude, latitude, elevation, and surface material of Winnipeg
Insect Control - Adult Mosquito Trap Areas	2021-09-03	Contains the boundaries of the areas counted in mosquito trap count data
Insect Control - Mosquito Larval Control Listings	2021-09-03	Contains all areas inspected and sprayed mosquito larvae
Substance Use	2021-10-18	Tracks all WFPS incidents in which substance use was involved. Tracked substances include alcohol, cocaine, crystal meth, marijuana, and opioids
Narcan Administrations	2021-10-18	Tracks all WFPS incidents in which administrations of naloxone have taken place

Community Engagements: Hackathon

On March 6, 2021, the City of Winnipeg worked with Decision Works to host its fifth Open Data Hackathon. Due to Covid-19, this was the first virtual hackathon, and was attended by around 30 participants (several from outside Winnipeg who were attracted by our high-quality Open Data Program). The theme for the hackathon was "Public Works", with various datasets from that department highlighted as potential projects. The participants broke up into six groups and spent the day working on their projects and a presentation, which were reviewed by the Director of Public Works, as well as other staff from the City of Winnipeg.

After reviewing the presentations, four projects (citizen centric open data, weather data to predict mosquito counts, a safe cycling in the city app, and a park asset app) were submitted to the Innovation Strategy Program. The projects were evaluated at the Spark phase, and are available as potential future projects.

Community Engagements: Pembina Trails Early College Collaboration

In November of 2020, the City, in collaboration with PTEC (Pembina Trails Early College), presented Open Data as a concept and as a resource to classes of grade 9 and grade 10 students. The students were shown the Open Data portal, and the tools available on the portal, and given a challenge to build an application based on a newly posted dataset, the parking paystations. As a result of that challenge, one student in the grade 10 class built a website that allowed users to locate the closest paystation to them, without having to leave their car.

Vote Information System

The Vote Information System is an Open Data-powered web application built to provide public access to the voting records of Council Members during Council and EPC meetings. The web app was launched on September 21, 2020, to provide greater openness and transparency with the public. The app contains many features to assist with exploring and contextualizing the vote data, such as:

- Tallying vote count based on individual Council Member votes.
- Filtering items by meeting date, committee, or Council Member.
- Searching for votes by agenda item text.
- Linking to the Decision Making Information System (DMIS) meeting minutes for a detailed view of the decisions made.

Analytics

Below are the top five datasets for site views, programmatic usage and download count. These stats are for the period of September 2020 to September 2021. Site Views means the data and landing page were viewed on the Open Data portal (data.winnipeg.ca). Programmatic usage means automatic computer to computer usage and interaction with the Open Data through the Application Programming Interface (API). Download Count is a total count of all the file downloads for each of the dataset in the various export formats (with further offline usage not included in the statistics).

Table 2. Top datasets by site views

DATASET NAME	VIEWS
Assessment Parcels	16,686
Survey Parcel	6,054
Map of Assessment Parcels	4,025
Tree Inventory Map	3,266
Neighbourhood	1,673

Table 3. Top datasets by programmatic usage

DATASET NAME	API READS
Map of Assessment Parcels	1,061,425
Survey Parcel	852,995
Tree Inventory	730,114
Community Characterization Area	198,879
Snow Parking Bans	114,862

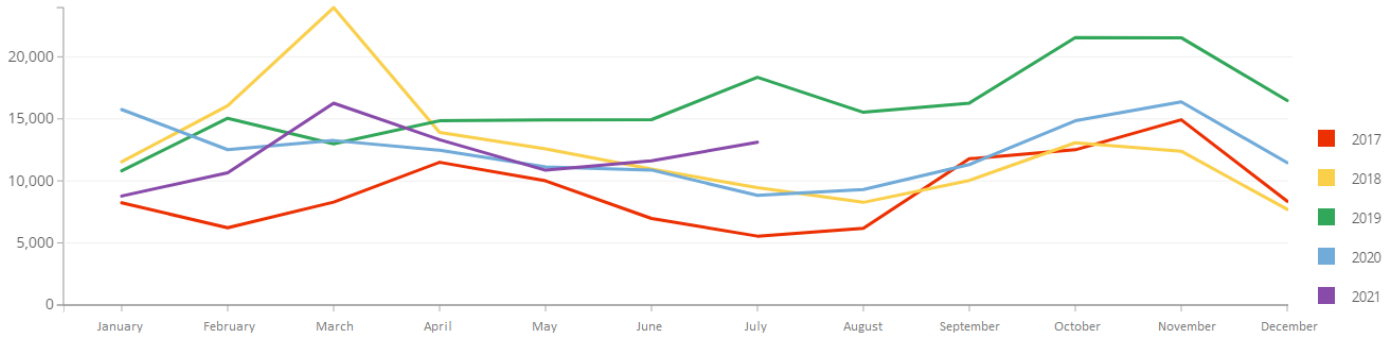
Table 4. Top datasets by download count

DATASET NAME	DOWNLOADS
Aggregate Building Permit Data	801
Assessment Parcels	788
LRS Road Network	612
Transit On-Time Performance Archive	507
COVID-19 By-law Enforcement	417

Page Views

This is the Page Views count for all the traffic on the Open Data portal, broken down by month. Traffic is fairly steady, with peaks in October, November, February and March. The peaks in these times correspond well with student activity, as Open Data is used in a variety of courses across Manitoba colleges and universities.

Figure 1. Page View Traffic to data.winnipeg.ca



Future Plans

The Open Cities Index ranking criteria was an excellent rubric for developing a municipal Open Data program. Using the report as a development guidebook allowed the City to grow the Open Data program, including expanding the foot print of existing datasets, improving the processes and quality of the data, as well as working with external organizations to increase the usage and awareness. As the City has approached a near perfect score for that report, the City has an opportunity to expand beyond the Index in new directions.

In the upcoming years, the City will focus on improving the process for adding new datasets to the Open Data portal. Currently, the prioritization of which datasets to release is based on a number of factors, primarily access to the data, engagement of the service owner, and need from the public, among others. As we rework the process, the status of each new dataset will have additional reporting information associated with it. With this new metadata in hand, the Open Data Steering Committee can make better decisions regarding which datasets to prioritize for release based on the benefit to the City. While other datasets may be released in between meetings of the Open Data Steering Committee, the datasets that are prioritized there should be put to the head of the queue.

The City of Winnipeg is currently in the process of developing an Information Management Administrative Standard. This standard will guide the organization on the best practices regarding the development, organization, and maintenance of the City's Information and Data. This will lead to a higher level or organizational clarity regarding the City's data, and how Open Data can be used to increase the City's openness and transparency.

FINANCIAL IMPACT

Financial Impact Statement

Date: November 5, 2021

Project Name:

Open Data Annual Report

COMMENTS:

There are no financial implications associated with receiving this report as information.

Electronically approved by
Jocelyn Peters, CPA, CGA
Manager of Finance & Administration (Campus)
Corporate Finance Department

CONSULTATION

This Report has been prepared in consultation with: N/A

OURWINNIPEG POLICY ALIGNMENT

Our Winnipeg 1.5 - Evidence-Informed Decisions: Invest in data and technology in order to support objective, evidence-informed decision-making; support open government and open data principles for collection and sharing; help coordinate records and information management; and improve process efficiency and results-based service delivery. Residents are entitled to know, understand and consent to the data collected about them.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

N/A

SUBMITTED BY

Department: Innovation & Technology
Division: Data & Applications
Prepared by: A. Burton
Date: November 8, 2021
File No: N/A