

ASSET MANAGEMENT

2022 YEAR IN REVIEW



CITY OF
PRINCE GEORGE

Introduction

To fulfill the responsibility under the Canada Community-Building Fund (CCBF) Agreement, formerly called the Gas Tax Fund, between Canada, British Columbia and the Union of BC Municipalities, and in accordance with the Community Works Fund Agreement, all local governments must demonstrate progress made towards asset management (AM) improvements.

Municipalities in BC are required to progress in their AM practices by identifying planned improvements and committing to these actions within the 2014 - 2024 CCBF agreement. In 2019, Council's updated AM Policy and corresponding AM Strategy & Roadmap was developed and guide the City of Prince George's (the City) implementation of AM activities. These activities align with the CCBF agreement.

The City's Asset Manager provides regular updates to Senior Leadership and Council on the completed action items from the AM Strategy & Roadmap. In Sept 2022, the City was required to share back its progress over the last five years and completed the UBCM Measurements of Progress questionnaire.

Asset management was identified as the preferred avenue for "...building local government capacity to take an integrated, long-term approach for planning, building and maintaining strong sustainable communities..."

(UBCM AM Commitment Questionnaire 2018)

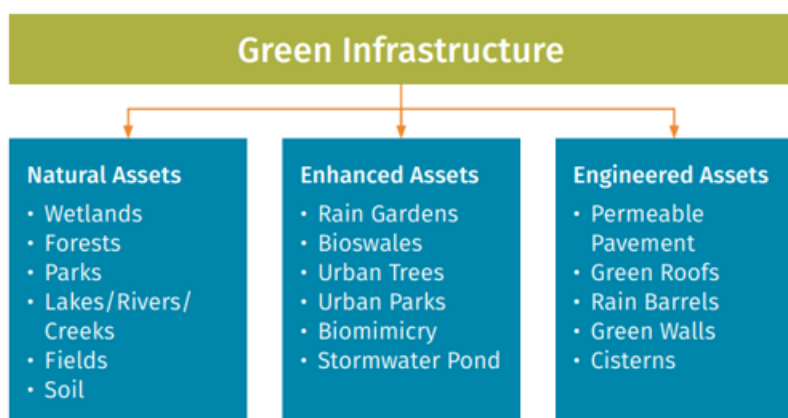
The following accomplishments are from 2022 and are grouped together using the CCBF Agreement categories.

Areas of Progress in 2022

1. Capacity Building:

2022 Accomplishments:

Natural Asset Management Roadmap



A growing number of local governments recognize that it is important to understand, measure, manage and account for natural assets as it is for engineered ones. Doing so can enable local governments to provide core services, such as, stormwater management, water filtration, and protection from flooding and erosion, as well as additional services such as those related to recreation, health and culture.

Source: NAI - <https://mnai.ca/capacity-building-for-local-governments/>

The latest opportunity to continue our natural asset management journey was provided by Natural Assets Initiative (NAI) & FCM to participate in the Canada-wide Natural Asset Management Roadmap cohort program. The City was successful in being selected along with nine other local governments. The program started in the fall of 2022 and provided support for the City to develop a Natural Asset Management Roadmap. The City chose a cross-functional team of planning, operating, environment, and asset management staff to participate and build internal capacity in natural asset management.

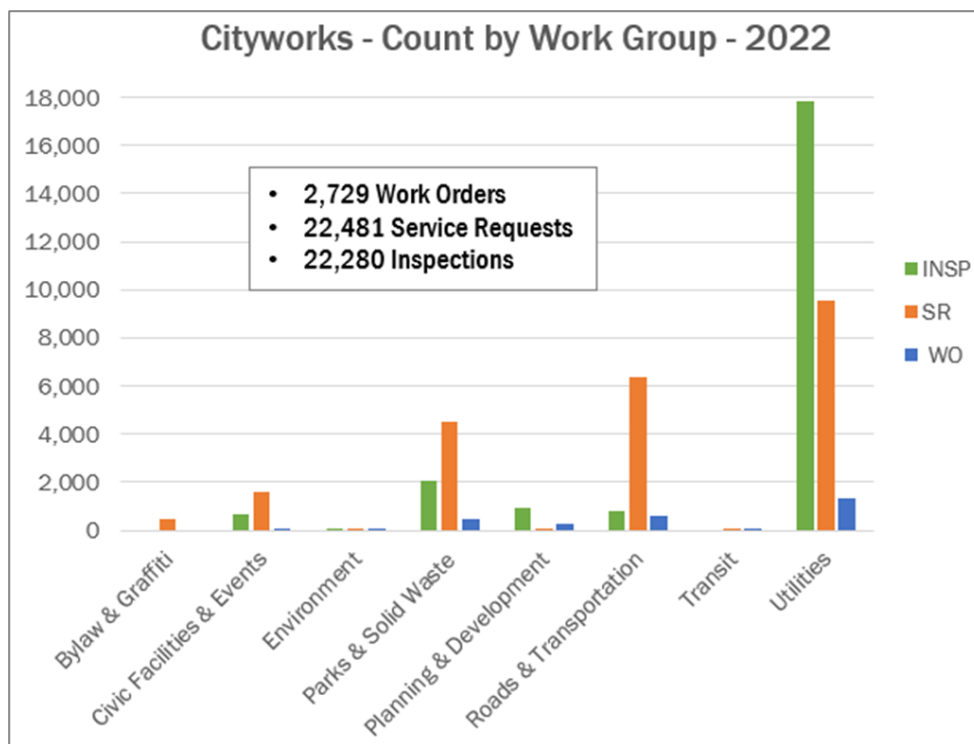
This program provided the participants with the opportunity to learn from other municipalities and contribute to the larger body of data that is being generated across Canada about natural assets. The final roadmap compliments the City’s existing AM Strategy and provides more detailed actions on how to become more mature in natural asset management.

2. Leadership:

2022 Accomplishments:

2022 Excellence in Enterprise Practice Award from Cityworks Developer
 UBCM 2022 Community Excellence Award Honorable Mention for the ISMP

The City is continuing to be a leader in the organization-wide utilization and development of its computerized maintenance and asset management system, Cityworks, which has been in place since 2014. The various Divisions in Civic Operations, Planning & Development, Service Centre, and Bylaw have created a total of 2,729 work orders, over 22k service requests and over 22k inspections from January 2022 to December 2022. That is a significant amount of work and asset management data collection across the organization!



The City of Prince George was awarded the **Cityworks Excellence in Enterprise Practice Award** for 2022 from the Cityworks developer, Trimble. This award recognizes clients who use Cityworks throughout their organization in a high-quality manner. These clients offer great examples of how Cityworks enterprise solutions help improve work, planning, budgeting, and communication across an entire organization. Trimble selects its clients who are doing an exemplary job of providing exceptional service to their communities through the use of Cityworks and ArcGIS and they chose the City of Prince George last year!

The City received an honourable mention for the **UBCM 2022 Community Excellence Award in Sustainability** for our newly created Integrated Stormwater Management Plan (ISMP). The Community Excellence Awards recognizes and celebrates UBCM members that have implemented projects or programs that demonstrate excellence in meeting the purposes of local government in BC. The awards are designed to profile promising practices and to encourage local governments to learn from the success of other members in order to implement changes in their own communities.

3. Integration:

2022 Accomplishments: CCTV & Cityworks Integration

The Utilities Division uses CCTV to conduct sanitary and storm sewer condition assessments using a camera and ITPipes software. This software stores video, photos, and pipe defect information. One of the main purposes of our Cityworks asset management software is to house all of our assets condition information and record work history on our assets. One of the reasons why ITPipes was the software of choice is because it can be integrated with Cityworks.

In 2022, ITPipes and Cityworks were integrated so that work orders and inspections for our sanitary and storm sewer main condition data can be tracked and used to prioritize renewal investments.

4. People & Information:

2022 Accomplishments: 63 New Cityworks Users 12 Exempt Leaders AM Orientation 2 Staff received Professional Certificate in Asset Management Planning from IPWEA

The City's computerized maintenance and asset management system, Cityworks, has seen 63 new users trained in 2022. As of Dec 2022, there are a total of 366 active Cityworks accounts. Training and work procedure development within Cityworks is provided on a continual basis.

The City has an Exempt Leader Orientation Passport program coordinated through Human Resources. This provides Exempt Leaders with information and familiarity about each divisional area including Asset Management (AM). In 2022, twelve (12) new Exempt Leaders learned about what AM is all about and how the City integrates its AM program throughout the organization.

Public communication about various topics related to AM occur each year so that people know the importance of the City's asset management program. In 2022, there were a number of public communications including:

- Infrastructure Report Cards published within the Financial Plan,
- Annual Asset Management Strategy Update 2022 Council presentation,
- A report provided to Council on the full lifecycle cost of a proposed park,
- Social media posts about AM,
- Asset Management BC Article about Operationalizing AM in the City of Prince George.

From a staff AM education standpoint, the National Asset Management System (NAMS) Canada offers an eight (8) week online Professional Asset Management Planning Certification, developed by the Institute of Public Works & Engineering Australasia (IPWEA) with subsidized funding from the Federation of Canadian Municipalities (FCM). Two staff from the AM team completed their professional certificate in 2022. The final assignment for this professional certification was a draft Asset Management Plan (AMP) for the City's Streetlights & Traffic Signals and for the Sanitary Sewer System.

5. Assets

2022 Accomplishments:

Utilization of ArcGIS Dashboards for Asset Data
Civic Facilities Condition Assessments 2022
Canadian Infrastructure Benchmarking Initiative (CIBI) 2022
Infrastructure Report Cards

There are five (5) key focus areas included in this section of the UBCM CCBF Agreement that are also incorporated into the City's AM Policy & Strategy:

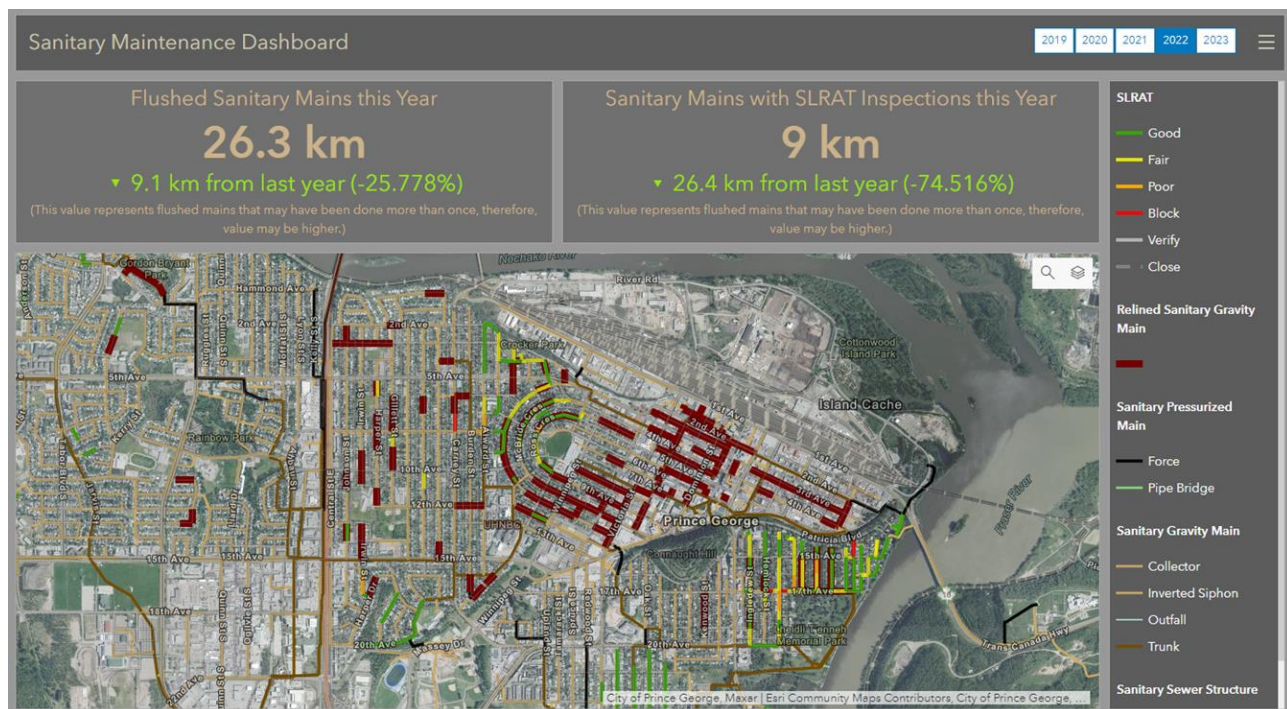
- 1) Asset Location
- 2) Asset Condition
- 3) Levels of Service
- 4) Asset Expenditure
- 5) Asset Risk

Several initiatives related to these focus areas have been completed in 2022 or are currently underway.

1) Asset Location:

It is important to have standards in place for keeping the City's GIS up-to-date with asset locations and other asset data. A data governance committee was established in 2021 and since then have tackled some important processes. In 2022, an asbuilt/records process was created and uses Cityworks to track and communicate infrastructure asset installation records.

City staff continue to utilize ArcGIS Portal and ArcGIS Dashboards to illustrate where the City's assets are and what asset management data is associated with them. They also provide insight for various maintenance programs. These tools use the City's GIS and Cityworks data. Here is one of the dashboards our staff created, illustrating maintenance information about the City's sanitary sewer system:



2) Asset Condition:

Condition assessments continue to be a focus for the City. Civic facilities, Utility facilities, paved roads, sidewalks, trails, hard surface courts, parking lots, streetlights, major bridges, playgrounds, and some sanitary and storm sewer pipe have been inspected for condition over the last several years. In 2022,

condition re-assessments were completed for 13 civic facilities. The following page shows the results of the building condition assessment with condition scores for each building grouped by building system. All civic buildings are planned to be assessed for condition every 5 years.

Facility Number	Facility Name	BCI	SCI																	
			A10 Foundations	A20 Basement Construction	B10 Superstructure	B20 Exterior Enclosure	B30 Roofing	C10 Interior Construction	C20 Stairs	C30 Interior Finishes	D10 Conveying	D20 Plumbing	D30 HVAC	D40 Fire Protection	D50 Electrical	E10 Equipment	F10 Special Construction	G20 Site Improvements	G30 Site Civil/Mechanical Utilities	G40 Site Electrical Utilities
2	Fire Hall No. 2 - Ospika	83	85	ND	88	87	73	82	ND	78	87	88	82	86	83	ND	ND	ND	ND	ND
16	Fire Hall No. 3 - Vanway	83	87	ND	88	86	83	86	ND	87	ND	86	78	87	87	ND	ND	ND	84	ND
17	Fire Hall No. 4 - Hart Highway	87	88	ND	88	87	73	77	88	82	67	86	87	87	81	ND	ND	ND	79	ND
18	Search & Rescue Building	85	88	ND	88	84	91	85	50	79	ND	89	93	87	86	ND	ND	ND	69	ND
28	RCMP Detachment	86	87	ND	86	87	81	86	89	86	87	86	86	87	87	ND	ND	ND	ND	ND
29	SPCA Building	85	76	ND	58	73	94	85	ND	84	ND	86	86	87	86	ND	ND	ND	ND	ND
30	Elder Citizens Rec Association	84	88	ND	86	83	88	85	87	80	87	87	85	87	87	0	ND	ND	ND	ND
31	Kin Atrium (Connector)	84	88	ND	88	80	72	87	87	80	87	87	83	81	87	ND	ND	ND	69	ND
32	Kin Centre I (Arena & Lounge)	87	88	ND	88	87	87	86	89	87	87	86	78	87	87	ND	87	ND	79	ND
33	Pine Valley Golf Clubhouse	82	88	ND	85	77	83	87	48	75	ND	82	72	87	85	ND	ND	ND	69	ND
34	Seniors Activity Centre	78	80	ND	80	73	100	81	86	79	94	85	61	81	83	ND	ND	ND	ND	ND
35	South Fort George Rec Centre	76	80	ND	87	61	88	86	69	85	ND	81	69	87	82	ND	ND	ND	ND	ND
36	Two Rivers Art Gallery	84	96	ND	73	87	87	87	90	88	87	86	81	87	85	ND	ND	ND	ND	ND

* "ND" = "No Data" indicates that no components for that system were assessed or observed in the field.

The City's predictive modeling software, Powerplan AMP (formerly called RIVA) and BUILDER SMS, use condition scoring to determine and prioritize upcoming renewals and help to better plan how much funding is needed in the long-term to keep the City's infrastructure assets in good working order.

The City's arterial and collector paved road network are being re-assessed for condition this summer. The data from the assessment will be used to plan for road rehabilitation.

3) Asset Levels of Service:

The City participates in the Canadian Infrastructure Benchmarking Initiative (CIBI), previously known as the National Water & Wastewater Benchmarking Initiative (NWWBI) with over 30 municipalities across Canada comparing water, wastewater, and stormwater. Benchmarking is the process of comparing products, services, and practices with others to gain actionable insights that will help our organization optimize its performance. Some highlights from the 2022 benchmarking for the City include:

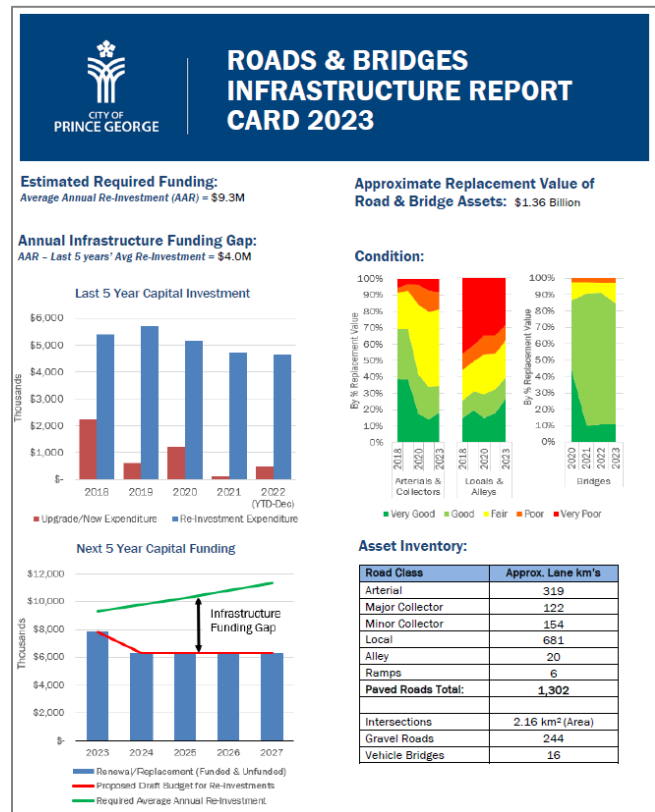
- A decrease in wastewater related customer complaints;
- The City's sewer charge for a typical residential service connection is below the median of the group;
- A downward trend in wastewater corrective maintenance hours over the past six years, which indicates a shift to a more preventive approach to maintenance;
- The cost to provide water and sewer per population served is at the median of the group although the City is below the median of the group when it comes to water and sewer system renewal.
- The City's watermain system is 6th oldest in the group;
- The number of stormwater catchbasins cleaned has increased over the past couple of years, but was still well below the group median. Sediment can negatively impact the capacity of the downstream storm system and harm the natural receiving environment. Increased funding for stormwater maintenance would allow the City to clean more catchbasins.

4) Asset Expenditures:

Infrastructure Report Cards are developed annually and included in the [City's Financial Plans](#). The following asset categories are included;

1. Civic Facilities
2. Parks & Trails
3. Roads & Bridges
4. Sidewalks & Walkways
5. Storm Drainage
6. Street Lights & Traffic Signals
7. Sanitary Sewer
8. Water

Each report card includes asset inventory, condition, replacement value, required funding, last five (5) year funding, next five (5) year funding and the annual infrastructure funding gap.



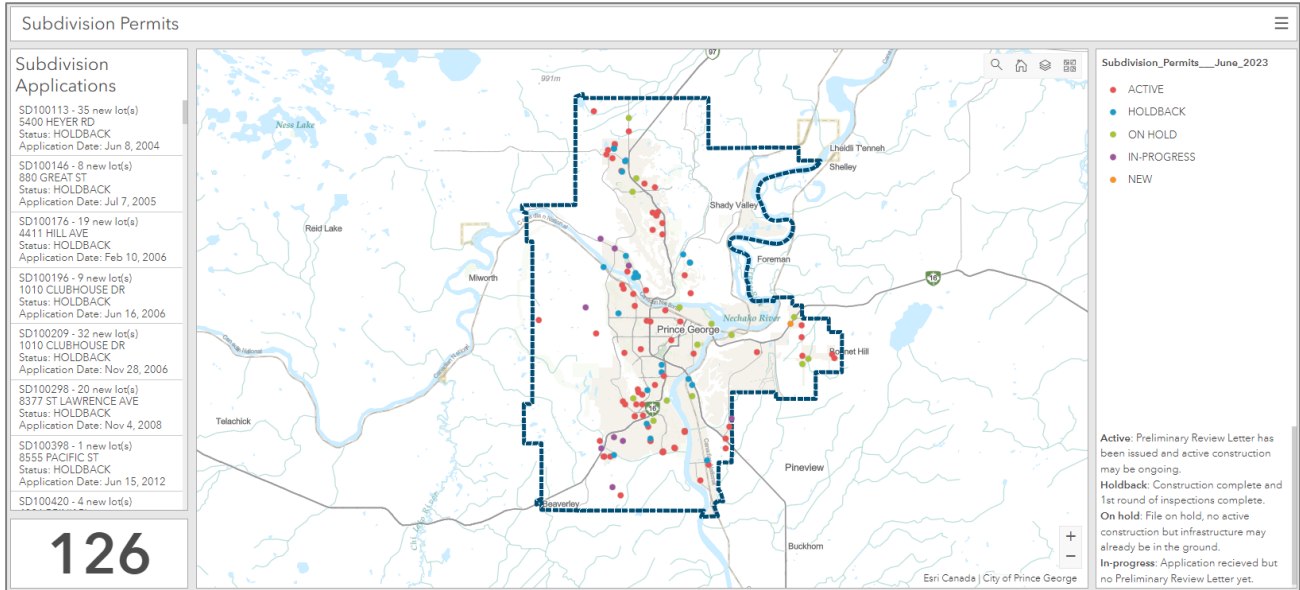
6. Planning:

2022 Accomplishments:
Stormwater AM Plan 2024 – 2043
Utilization of ArcGIS Dashboards for Planning

Under the direction of the Asset Management Steering Committee, a draft Stormwater Drainage AM Plan has been substantially completed. These tactical plans describe what the City needs to do to keep its infrastructure assets working properly including capital projects and O&M programs. They summarize what the City is able to do with the resources it has and what it can't do. These plans assist Senior Leadership and Council in understanding and deciding upon what is an acceptable risk and what resources are needed if the risk is too high and must be dealt with. AM will also be starting a Civic Facilities AM Plan this year.

AM Plans communicate the actions required for the responsive management of assets (and services provided from those assets), compliance with regulatory requirements, and funding needed to provide the required levels of service over a 20-year planning period. These plans take strategies, such as the Integrated Stormwater Management Plan (ISMP) and bring them down to the tactical level.

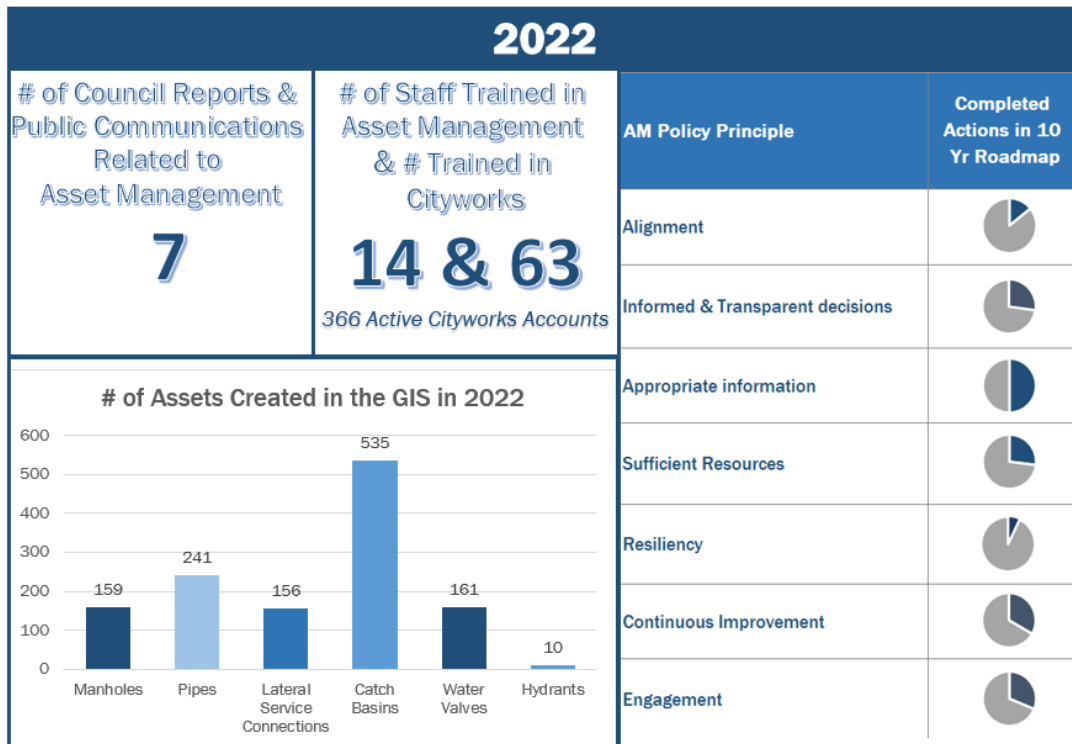
Another useful dashboard, on the following page, was created to assist Development Services with a quick glimpse at the number of permit applications they have on the go and where those permits are located within the City. The map is interactive and when zoomed into a neighbourhood, the permit applications shown on the left only show the ones in the zoomed area. Every year more dashboards are being created for development, operational, and capital planning purposes.



7. Implementation:

This section of the UBCM Canada Community-Building Fund (CBBF) agreement is about measuring positive outcomes of asset management planning and implementation. Measuring the following indicators annually assists in tracking continuous AM implementation and improvement:

2022 Asset Management Implementation KPI's:



This dashboard indicates that:

- AM continues to be communicated both internally and publicly.
- Asset inventory continues to be updated to provide accurate asset data, and,
- The number of actions completed annually in the AM Strategy & Roadmap are grouped by the AM Policy principles and are planned over a 10-year period. As we move forward we'll be seeing more and more blue in the pie graphs.

The main purpose of a local government is to provide services to the community and most of the services are provided using infrastructure assets, both engineering and natural. This is why local governments have an AM program with the goal of sustainable service delivery to the community, now and into the future. The City can move towards this by following the AM Policy and working through the actions in the AM Strategy & Roadmap.