

ASSET MANAGEMENT

2019 YEAR IN REVIEW



**CITY OF
PRINCE GEORGE**

Introduction

To fulfill the responsibility under the Renewed Gas Tax Agreement 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 commit to these actions within the Gas Tax Application. The City of Prince George (the City) will be required to share back which activities were completed by 2022. In preparation for this reporting, the City's Asset Manager will provide an annual Year in Review Report to the AM Steering Committee and Council which highlights the AM activities that have been completed or are underway. These annual reports will serve as a reference when the time comes to share with UBCM what AM improvement commitments have been accomplished. The accomplishments are grouped under the same improvement categories identified in the Gas Tax application.

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)

Areas of Progress in 2019

1. Capacity Building:

2019 Accomplishments:

Update to AM Policy, Strategy & Roadmap

The City is committed to continuously moving forward with a formalized approach to AM. There has been an Asset Manager in place since 2007 who is responsible for carrying out AM initiatives. The City is now focusing on developing AM expertise in the operating areas such as Parks, Roads, and Utilities.

An update to the [AM Policy](#) and [Strategy](#) was completed in 2019 and includes climate change mitigation and adaptation considerations. The driver for the new Policy & Strategy is sustainable service delivery.

Sustainable service delivery is an approach to delivering infrastructure services that ensures that services are provided to the community today in a way that:

- is fiscally, environmentally, and socially responsible;
- is adaptive to changing circumstances and future conditions; and
- does not compromise the ability of future generations to meet their own needs.



2. Leadership:

2019 Accomplishments:
Creation of first AM Steering Committee

The City established its first [AM Steering Committee](#) in 2019. The purpose of this committee is to provide direction on initiatives related to the City's updated AM Strategy & Roadmap.

The goals of the AM Steering Committee are:

- a) To achieve a corporate approach to AM by ensuring that a representative from most departments have the opportunity to review and contribute to all aspects of Council's AM Policy and the AM Strategy;
- b) To ensure the City's AM Strategy is coordinated with its corporate objectives, plans, and documents and with its Climate Mitigation and Climate Adaptation Strategies;
- c) To ensure that all departments support, communicate, and can implement the agreed upon AM strategies, plans, and practices.

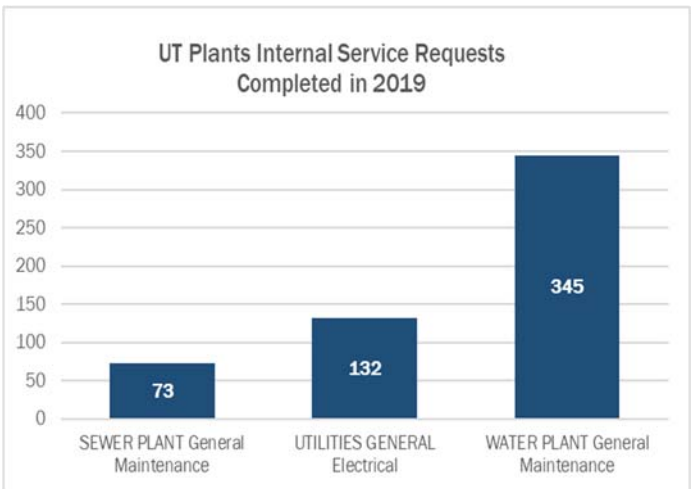
The practice of AM and its goal to position the City in a way that it can provide sustainable service delivery now and into the future, is made up of a variety of disciplines: Engineering, Finance, Planning, Operations and Communications. For those reasons, the committee membership includes the City Manager, Directors from Public Works, Infrastructure Services, Finance, and External Relations, along with several Managers including, IT Services, Asset Management, and Development Services. The committee meets on a quarterly basis.

3. Integration:

2019 Accomplishments:
Civic Facilities Cityworks Implementation
Water Pumpstation Cityworks Implementation

Asset Management practices are continuously being integrated across City departments/divisions. Most Divisions participated and provided input for the update to the AM Policy, Strategy & Roadmap. The AM Steering Committee also assists in keeping AM practices integrated across the organization.

The City's Computerized Maintenance Management System (CMMS), Cityworks, continues to be implemented throughout the organization. Civic Facilities Maintenance Division completed their full Cityworks implementation in 2019. There were 363 Service Requests, 1,183 work orders, and 353 inspections completed in 2019. The final phase of the City's Utility Plants Cityworks implementation was also completed in 2019 for the Water Pumpstation group. The Sewer Liftstations, Wastewater Treatment Centre (WWTC), and Water Pumpstations are now using Cityworks for their work orders, service requests, and inspections. This group took the initiative and started a procedure for creating service requests within their teams, between the Trades



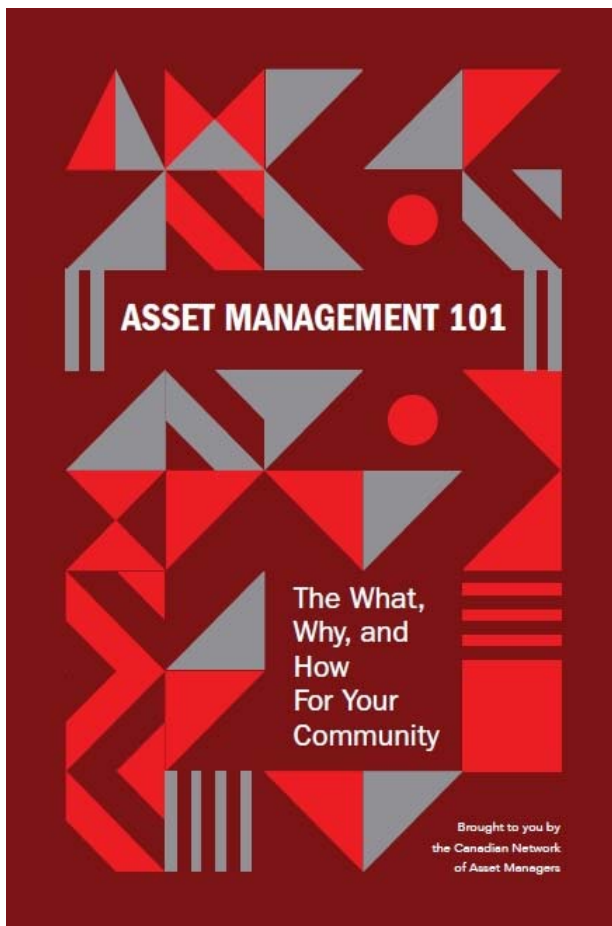
and Operators. Documenting requests to each other provides efficiencies in resource planning and prevents tasks from being overlooked. There were 550 Service Requests completed in 2019 between the Utility Plants groups as seen in the figure on the previous page.

4. People & Information:

2019 Accomplishments:

Two Staff Received the Professional Certificate in Asset Management Planning
Talktober 2019 - Infrastructure
56 New Cityworks Users

Communicating AM principles and information to staff and the public is important. The City supports opportunities for staff members to build capacity for asset management through education and training. The Canadian Network of Asset Managers, CNAM, hosted their first online AM awareness workshop that



introduces the participants to the benefits of AM, what it encompasses, and how to get started. The Public Works Director and some of her leadership team attended this training session in late 2018. It is a good way to learn about AM practices and terminology so the organization is speaking the same language when it comes to AM. This workshop is offered annually and will become a part of the City's ongoing AM capacity building. Several staff recently attended the online session this February 2020. Click on this graphic to download the booklet.

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). The majority of the Asset Management Division employees and one Infrastructure Services Manager has obtained their certification in 2018/2019. The final assignment for this professional certification is a draft Asset Management Plan (AMP). The City now has four (4) draft AMP's: Water, Roads, Stormwater, and Parks.

Cityworks training is ongoing. As of Dec 31, 2019, there was a total of 232 Cityworks users, including 56 new users trained in 2019.

Asset management and infrastructure was the main topic in the City's 2019 Talktober sessions. This provided the public with information on what the City is faced with in terms of infrastructure and population and some of the steps the City is taking in asset management to become more sustainable. Every community in Canada depends on infrastructure assets to provide the services needed to have a good quality of life. It is a local government's responsibility to keep the infrastructure in good working condition in order to provide these services now and into the future.

5. Assets

2019 Accomplishments:

Asset Data Governance Standards
Civic Facilities Assessment Report, Dashboards & Renewal Strategy
Wastewater Treatment Centre (WWTC) Condition Assessment
NWWBI 2019
Infrastructure Report Cards 2019
Sewer Liftstation Condition Assessment and Risk Register
Water Network Risk Data for GIS

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

- 1) Information on the location of existing assets,
- 2) Information on the condition of existing assets,
- 3) Information on the level of service for existing assets;
- 4) Information on asset expenditures;
- 5) Risk register – a risk register accounts for the consequence and probability of a failure occurring for existing assets by taking into account the asset users, the service the asset provides, and expected service level.

Several projects related to these focus areas have been completed in 2019 or are currently underway.

1) Asset Location:

It is very important to have standards in place for keeping the City's GIS asset database current. The Asset Data Governance Standards project was completed in 2019 and provides the City with recommendations on procedures, timelines, and tools for keeping the GIS up-to-date when changes are made to infrastructure assets or new ones are installed. One of the main advantages to Cityworks is that assets can be attached to work orders and inspections, providing history on what work has been done to that asset. This is why, even at an operational level, it is important to have the GIS up-to-date.

2) Asset Condition:

Condition assessments have been a focus for the City over the last five (5) years. Civic facilities, Utility facilities, paved roads, sidewalks, trails, hard surface courts, some bridges, playgrounds, and some sanitary sewer mains have been inspected for condition. The results from these assessments are important for planning and prioritizing required work, how much it will cost, and on what assets. Much of the condition data is housed in Cityworks and the GIS. The City's predictive modeling software, Powerplan AMP (formerly called RIVA) and BUILDER SMS, use condition scoring to determine 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.

Condition assessment reports for the sewer liftstations, WWTC, and lagoons were completed in 2019. The City plans to conduct condition assessments on its major asset categories every 3-5 years, which follows the national AM best practices. The next cycle of condition assessments starts in 2020, with Paved Roads and most of the buildings that were assessed in 2015. Assessments of civic parking lots, playgrounds, and major bridges are also planned for the near future.

3) Level of Service for Existing Assets:

A Level of Service (LoS) Development project commenced at the end of 2019. The City is utilizing the experience and expertise of AECOM Canada Ltd to help with this project. Organization wide workshops were held in early February 2020 to begin developing customer LoS statements and corresponding customer and technical LoS measures. The project will be completed in August 2020 with customer engagement to follow. Council communication and input will occur prior to customer engagement.

Documenting Level of Service (LoS) is a proven practice for these reasons:

- Service Levels need to be explicitly described and accepted by the community the City serves,
- Community expectations and organization capacity are important elements of any discussion about service level,
- Public trust and confidence increases when the City can describe service levels and performance using a variety of financial and non-financial data,
- Understanding the community's expectations and clarifying whether the way things have been done is acceptable or just a habit,
- Identifying priorities, whether service is acceptable or change is needed, to help the City determine where resources/effort should be directed, including what the appropriate funding levels will need to be to sustain desired service levels, and,
- Assess internal and external factors that have the potential to impact the City's ability to deliver services (i.e., climate change, pandemics).

The City participates in the National Water & Wastewater Benchmarking Initiative (NWWBI) with over 30 municipalities across Canada comparing water, wastewater, and most recently, stormwater. Many of the key performance indicators measured in this program show the City's current level of service and how it compares with other local governments. Some highlights from the 2019 benchmarking for the City include:

- Decrease in wastewater related customer complaints,
- Decrease in total corrective maintenance hours over total maintenance hours on the water system, partially due to an increase in preventative maintenance,
- A decrease in wastewater capital re-investment,
- Decrease in customer water usage,
- High cost to provide water distribution and wastewater collection compared to the group median,
- One of the lowest water and sewer rates.

4) Asset Expenditures:

Civic Facilities Assessment Report & Dashboards were brought to Council in February 2019. This report identified the current replacement value, condition assessment results, estimated renewals over the next ten (10) years and expenditures from previous years. The Civic Facilities Renewal Strategy took the assessment data and determined that renewal priorities should focus on assets that have a condition score of ≤ 74 . This report was presented to Council in July 2019.

Infrastructure Report Cards were developed for the [2019-2023 Financial Plan](#) (pg.125) and include the following asset categories:

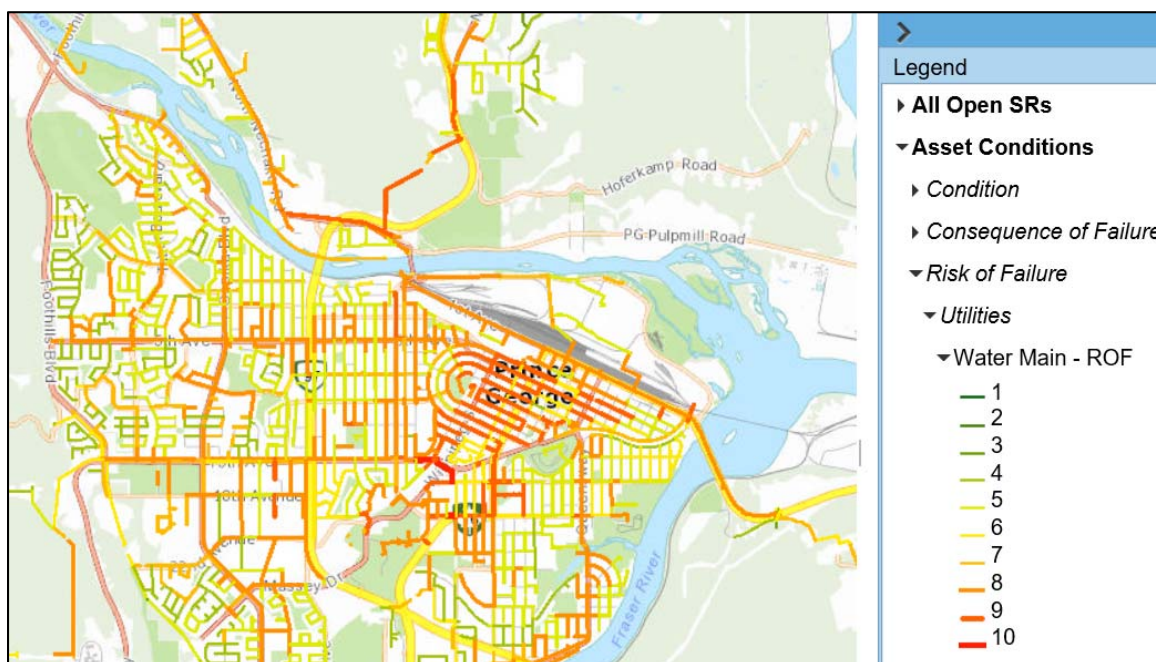
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|-------------------------|-------------------|
| 1. Civic Facilities | 5. Storm Drainage |
| 2. Parks & Trails | 6. Street Lights |
| 3. Roads & Bridges | 7. Sanitary Sewer |
| 4. Sidewalks & Walkways | 8. Water |

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. These report cards are updated annually and included in the City's Financial Plans.

5) Risk Register:

A Sewer Lift Station (SLS) Condition Assessment was completed in 2019 and included a [risk register](#). This register identifies each building component, the probability and consequence if it failed, the estimated timing of failure, and what possible treatment options are available to mitigate the risks.

The most recent Water Master Plan includes risk scores for each of the watermain. This data can now be seen in Cityworks/GIS. The Sewer Master plan also includes this information and will be added to the GIS in the near future.



Risk registers will be incorporated into the AM Plan's and used to prioritize work. Developing risk frameworks for the City's major asset categories is an action item in the AM Strategy & Roadmap. This project is planned for 2021/2022.

6. Planning:

2019 Accomplishments:

Draft AM Plans for Water, Roads, Stormwater, & Parks

As mentioned, the City's AM Policy & Strategy have been updated and an actions roadmap developed in 2019. These documents form the basis for AM planning and will work in conjunction with the City's

other planning documents like the Official Community Plan (OCP) and Climate Mitigation & Adaptation strategies.

The next step in AM planning is to develop tactical AM Plans:

- that help determine long-term (10-20yr) funding requirements,
- document asset condition,
- provide data on asset lifecycles,
- measure current and expected level of service, and;
- includes a risk register to identify projects that will mitigate risk for critical infrastructure.

The draft AMP's for Water, Roads, Stormwater, and Parks will be updated and finalized over the next couple of years and AMP's for the remaining major asset categories will be developed over the next 3-5 years.

7. Implementation:

This section of the UBCM Gas Tax agreement is about measuring positive outcomes of asset management planning and implementation. Measuring the following indicators annually will assist in tracking continuous AM implementation:

1. Key Performance Indicators (KPI's) for the City's customer and technical level of service using dashboards both internal and public facing, starting in 2020/2021,
2. Number of Staff Reports to Council and public engagement events related to AM,
3. Number of staff trained in AM and Cityworks,
4. Number of actions completed annually in the AM Strategy & Roadmap.

2019 Asset Management Implementation Proposed KPI's:

