CASE STUDY: CITY OF MISSION ON OPERATIONALIZING ASSET MANAGEMENT

Org background / Successes operationalizing AM

The City of Mission (the City) is nestled on a southern BC coastal mountain slope, overlooking the lush valley of the mighty Fraser River. Founded in 1892, Mission, BC was originally inhabited by the Stó:lō First Nations people, and today this rapidly growing and dynamic centre is home to a population of some 38,000 residents.

Ideally situated on the north bank of the Fraser River, backing onto mountains and lakes overlooking the Central Fraser Valley, Mission is just a 15-minute drive from the US border, and approximately 70 kilometres east of the City of Vancouver. Topographically, Mission enjoys an immense variation of hillsides and gullies which maintain natural neighbourhood enclosures, spectacular views, and a sense of permanence. Over 40% of Mission is actually a Municipal Tree Farm, making it only one of two communities with municipal tree farms in the province.

Mission has a unique and colourful history. It is the site of Canada's first train robbery, B.C.'s first rail link to the United States, one of the earliest Hydroelectric dams and Fraser River bridges, and is home to the oldest known First Nations' archaeological site in British Columbia.

The City has enjoyed several successes so far in its asset management (AM) journey. Notably, the adoption of an AM Policy by Council, and the formation of an Asset Management Leadership Team (AMLT) comprised of senior staff from the various departments across the organization. In addition, the City has procured an AM software system and inputs its assets therein, drafted an Asset Risk Assessment Framework (Risk Framework), and drafted a Level of Service (LoS) Framework.

Most recently, the Mission's AMLT worked with a consultant to assemble a roadmap for advancement of the City's AM program, and a number of the items identified therein are related to operationalizing the LoS Framework. Information from the LoS Framework, and associated Risk Framework, is required to complete the City's service area asset management plans (AMPs).

LoS Project Background

A Level of Service framework helps to translate the City of Mission's overarching aspirations (that set the context and direction for the organization's activities) into concrete departmental work plans and activities. The translation of qualitative statement into quantitative measures is shown in the figure below.

Values – Our guiding principles

Vision – Council and community view of the future

Mission – Why we exist

Goals – Broad long-range outcomes

Objectives – S.M.A.R.T

Strategies – steps that deliver on goals & Objectives

Measurements – Department work plans and reports

In 2017 the City retained a consulting firm to assist in establishing a level of service (LoS) framework (the Framework) for all asset classes. The project included documentation of the current LoS being provided for particular key performance indicators within each of the distinct service areas.

Specific measures for tracking service delivery in each of the service areas were established in working groups with staff from each distinct service area, based on their input. The City's AMLT has been working with staff to use the Framework and Register to track key performance indicators (KPIs), including the review of targets and cost of service rates.

Staff from each service area were tasked with maintaining the Framework and providing quarterly reports on their specific measures to the AMLT. The AMLT has been working with the various service area staff over the last two years to implement the Framework and take ownership of their particular service areas, with limited success.

The Issue (what we were trying to solve)

Information is needed to support decisions that are cost effective, manage risks, and support long-term service delivery. City staff recognized that there is a need to improve the quality of information, and its collection and dissemination, to strengthen informed decision-making. With appropriate clarity around levels of service, the City can utilize this information to develop budgets and treatment strategies. The operationalization of a LoS framework ensures that the appropriate sequencing of actions can be taken.

It is important to monitor the service levels as these will change over time and as the City gains experience with implementing AM. The current performance is influenced by work efficiencies and technology, and customer priorities will change over time. Review and establishment of the agreed position which achieves the best balance between service, risk and cost is essential.

The City decided to take advantage of the Operationalizing Asset Management program put on by Asset Management BC (AMBC) at the end of 2020, as a means of uncovering the best strategy to move the City's Level of Service project forward. Through participating in this program, City staff were able to identify weaknesses to operationalizing our LoS Framework as well as the effort required and benefits of overcoming them, and identify a preferred strategy to move the Level of Service project forward.
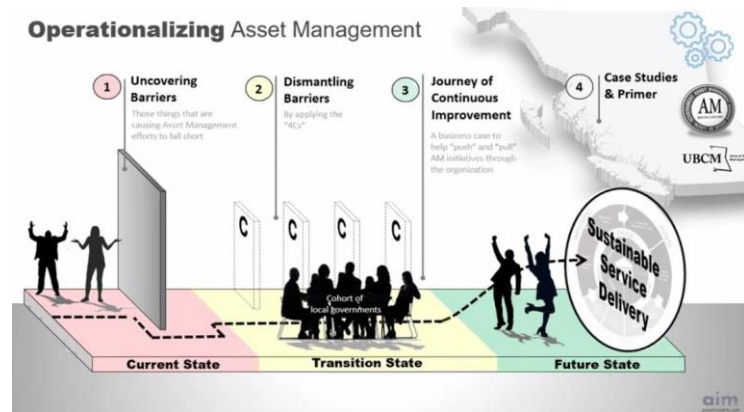
What did we do

The City of Mission applied for, and was accepted into, the inaugural cohort of AMBC's *Operationalizing Asset Management* learning experience to help identify and overcome the barriers to asset management in the areas of organizational culture, structure, and capacity. The cohort consisted of members from seven local governments; New Westminster City, City of Mission, District of Lake Country, District of North Vancouver, Tsilhqot'in First Nation, Cariboo Regional District, and Cowichan Valley Regional District.

Each group brought a unique AM 'artifact' that they were having difficulty operationalizing which was analysed through group participation in various workshops. The 'artifacts' examined by the inaugural cohort included:

- Condition Assessment
- Asset Hierarchies
- Process Mapping
- Maintenance Plan

- Level of Service Framework
- Nation Level Asset Management Program
- Change Management Plan

Analysis tools provided by AMBC helped identify where the greatest benefits to the City for the least effort could be realized, helping staff put together a plan focusing efforts on:

- Record Keeping,
- Staff capacity,
- Stakeholder engagement strategy, and

- Decision making criteria,
- Key Performance Indicators (KPIs),
- Council commitment

The plan was put together with the objectives of identifying what input data needs to be gathered, who is going to gather it, how it will be recorded and where it will be stored in 2021, gathering the information in 2022, and reporting to Council on the progress at the end of 2022.

Step 1 – AM Readiness

The first task undertaken by cohort members was to evaluate their organization's Asset Management Readiness using FCM's Asset Management Readiness Scale. The Readiness Scale measures an organization's present asset management practices across five competency categories (Policy &

Governance, People & Leadership, Data & Information, Planning & Decision Making, Contribution to Asset Management). These five competencies are key for sustainable service delivery. Each of these competencies is a building block and together, the five building blocks form the practice of asset management.

This Asset Management Readiness Scale helps local governments measure progress on asset management in the five competency areas, organized on a progressive scale of five levels. Each level is further broken down into three outcome areas. The outcomes describe milestones in asset management from initial investigation of practices, to adoption, and, eventually, to full integration of asset management practices into daily routines. Referring to the outcomes described at each level can help set goals and objectives, and design initiatives.

Step 2 – Change Risk

A Change Risk Assessment evaluating the LoS Framework, considering Organizational Attributes versus Change Characteristics was completed. This analysis indicated that operationalizing the LoS Framework would require a low to moderate degree of change and that the organization is change ready.

Step 3 – Market assessment

A PESTLE (Political, Economic/Financial, Socio-Cultural, Technological, Legal, Environmental) and SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis was completed. Of the 100 parameters identified in the Institute of Asset Management's (IAM) *Asset Management – An Anatomy*, 88 were determined as being relevant to operationalizing the City's LoS Framework and were analysed (26 strengths, 40 weaknesses, 13 opportunities, and 9 threats) with the intent of developing a plan for operationalizing the City's LoS Framework.

Step 4 – Identifying a plan

The tool provided by AMBC was structured to evaluate three scenarios against each other to identify the more preferable one for operationalizing the artifact in question. City staff assembled three work packages around areas felt to be key to operationalizing the LoS Framework. Each package consisted of five work items from the 88 relevant parameters identified as being relevant to operationalizing the Framework, as shown below.

1. Data & System to Support the Framework (internal focus)
   - Data, framework, and policy
   - Software, decision support system
   - Record Keeping
   - Asset condition ratings
   - Decision making criteria

2. People & Processes to Support the Framework (internal focus)
   - Documented procedures
   - Process maps
   - Staff capacity

- Record Keeping
- Key Performance Indicators

3. Council & public perception (external focus)
   - Long-term financial plan
   - Citizen satisfaction surveys
   - Key Performance Indicators
   - Stakeholder engagement strategy
   - Council commitment

Step 5 – Organizing the Plan

A Pairwise Analysis of the 5 work items was completed for each of the bundles of work proposed for operationalizing the Framework. The analysis evaluated the Benefit to the Organization versus Level of Effort for each item, to help prioritize work.

Results

City staff did not utilize the Business Case tool exactly as it was designed to be used (i.e. evaluate three different courses of action against each other to identify the preferred course of action) but rather used it to identify the highest scoring items across all three work packages, forming a new work package consisting of the six highest ranked parameters.

The assessment tools and associated detailed analysis helped the City of Mission identify that the biggest improvement in operationalizing our LoS Framework for the least amount of effort would come from focusing on the following six areas:

- Record Keeping
- Decision making criteria
- Staff capacity
- Key Performance Indicators
- Stakeholder engagement strategy
- Council commitment
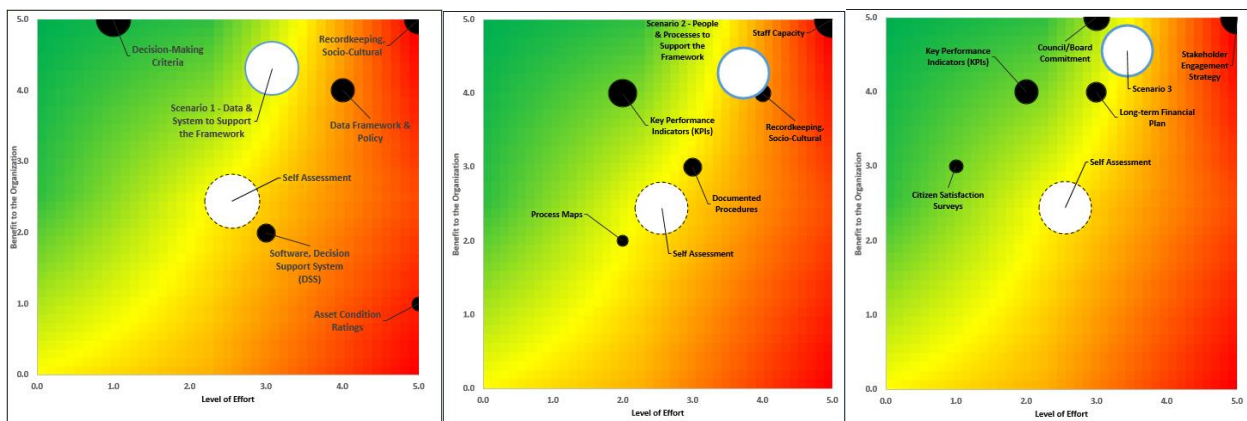
Once these parameters were dissected and arranged into action items, 16 in total, it was somewhat overwhelming to see the magnitude of work needed. This validated the lack of significant progress to-date operationalizing the LoS Framework and the decision to participate in Asset Management BC's Operationalizing Asset Management training program to identify a strategy to moving forward.

What we learned

The plan that was developed for operationalizing the LoS Framework is summarized below, grouped as per the six parameters (work items) identified as being of the greatest benefits to the organization for the least effort taken from the three work packages identified through the analysis.

Record Keeping – Staff need training on the types of records that are important to keep and why. A training program will need to be developed to provide this knowledge and educate staff on how to fully utilize the LoS Framework.

Decision making criteria – Staff require criteria to evaluate the acceptability of individual service levels. Council direction regarding the appropriate levels of service to be provided for each service area is needed. Individual service area groups need to populate the LoS Framework with the costs of service delivery for individual services. The City's Asset Management Leadership Team (AMLT) needs to review LoS Framework data, seek stakeholder (internal and external) direction, and plan workshops for Council to determine the appropriate LoS to provide.

Staff capacity – Staff workloads are currently too high to expect successful implementation of the LoS Framework without some sort of adjustments. Procedures will need to be developed to streamline the tracking, reporting, and actions required to make the most of the LoS Framework. A training program will then need to be developed to educate staff on how to most efficiently, fully utilize the LoS Framework. There are already some positive examples within the City that can be leveraged.

Key Performance Indicators – The LoS framework contains lots of good ideas of meaningful measures for informed decision making which need to be formally adopted/implemented. Procedures need to be developed outlining how to identify good KPI's, set appropriate targets, and properly track / report on the measures. Service area experts will need to critically consider the City's objectives, goals, mission, etc. and identify which KPI's support them. Then staff will need to identify influencing factors on each KPI (i.e. what issues affect performance) and determine ways of manipulating them to achieve the City's goals and objectives.

Stakeholder engagement strategy – A significant flaw in our stakeholder engagement was identified as being a lack of information flow to stakeholders. The flow of information to stakeholders needs to be improved and to facilitate such, the City needs to identify LoS measures for reporting, the means of reporting them, and timelines for doing so.

Council commitment – Council has been quite vocal about supporting AM and the City's AM program. However, in order to leverage this and overcome the election cycle short-sightedness, it is important to solidify this support through formal commitments to advancing the City's AM practices. The AMLT and senior management will need to work together to draft resolutions for Council to adopt, demonstrating

their commitment to the LoS Framework and using it to advance the City's AM program, achieving the best balance between service, risk, and cost.

What was value of program

The City of Mission felt there was great value from participating in this program, not the least of which being the wealth of assessment tools provided and guidance implementing from the program facilitators. Learning with / from fellow cohort members was also significantly valuable as everyone had something to share from their particular journey that benefitted the knowledge growth of the cohort.

The process of composing a business case document was extremely beneficial as it forced us to critically examine what the issues are and clearly map out how to overcome them. It was helpful, not only to clearly see the individual hurdles that have been hindering the City in operationalizing our LoS Framework, but in putting together a structured plan for overcoming them. There are a lot of pieces that have to come together and it is important to spend the time to think through how best to ensure success.

What can be taken away for value

There is so much that can be taken away from an exercise like this. This process really helped Mission put things in perspective, allowing us to focus scarce resources. One of the other extremely beneficial take-aways was mapping out the actions needed to advance to the next level of AM readiness per FCM's Asset Management Readiness Scale, providing an asset management roadmap to guide our journey.

Other helpful take-aways included understanding how tolerant / receptive your organization may be to change, understanding the specific strengths, weaknesses, opportunities, and threats to advancing AM practices in your organization, and building connections to peers tackling similar issues. This is an excellent way to grow your professional network and learn with others struggling with similar issues. It is very encouraging to hear others share their journey and realize that you are not in this alone.