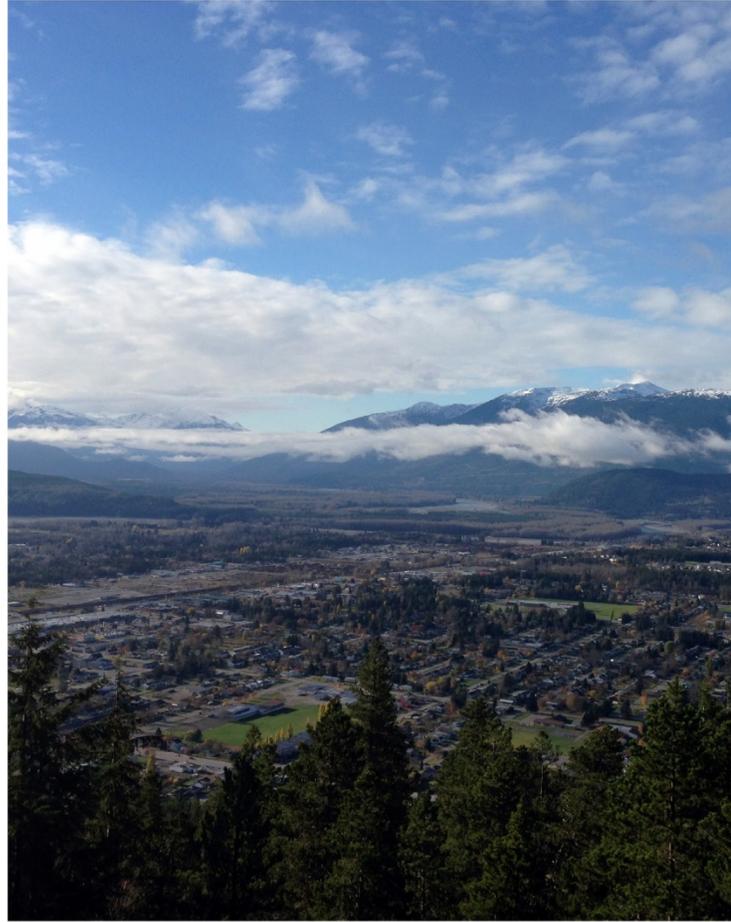


Asset Management for Sustainable Service Delivery

A BC Framework



“Local Governments too often take core infrastructure for granted until it breaks down. Without robust Asset Management practices it is too easy for local governments to starve capital replenishment and bring in artificially low tax rates and user fees in order to balance budgets – the long term consequences of this can be catastrophic. Sustainable service delivery is critical for the guarantee of future livability with our communities.”

- Richard Walton, Mayor, District of North Vancouver



Preface

Local governments in British Columbia are increasingly working to implement asset management practices as a way to deal with aging infrastructure, costs of replacing assets, increasing expectations for service levels, and increasing risk to the delivery of critical services such as water delivery, sewage collection, transportation, recreation, and civic services. *Asset Management for Sustainable Service Delivery: A BC Framework* (the Framework) was developed to provide local governments with a high level view of the process of asset management, components and activities within the process, and identify existing and relevant supporting resources.

The Approach

The Framework aligns with the 'BC Approach' for asset management which is being led by Asset Management British Columbia (AMBC). It identifies accepted best management practices that have been endorsed internationally, as well as best management practices that have been developed and endorsed by BC local government practitioners. The Framework has been developed to recognize the diversity of BC's communities and be scalable to community size, character and capacity. The Framework focuses on desired outcomes rather than prescribing specific methodologies, thereby allowing local governments to develop and implement an approach that can be measured and incremental, tailored to the specific needs and capacity of individual local governments.

The Framework describes asset management as a process, providing a guide to the why, what, and how of asset management. It is further supported by additional tools and resources available on the AMBC website, as well as tools and resources that are available on AMBC partner websites.

Finally, for local governments looking for strategic direction and/or guidance with asset management, the Framework becomes the principal resource.

Acknowledgements

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Special thanks to the members of Asset Management BC for providing input and feedback, and particularly to members of the Asset Management Framework Steering Committee:

- Glen Brown, Chair, Union of British Columbia Municipalities
- Liam Edwards, Ministry of Community, Sport and Cultural Development
- Wally Wells, Asset Management BC
- David Allen, City of Courtenay
- David Love, City of Courtenay
- Andy Wardell, District of North Vancouver
- Rob Bullock, Government Finance Officers of BC
- Doug Allin, Public Works Association of BC

About Asset Management BC

AMBC is an organization that is a provincial and national leader in building awareness, education, development of tools and resources, and supporting integration and collaboration with respect to asset management. AMBC participants include local government associations, academia, First Nations representation and local governments. AMBC is a stakeholder-driven community of practice that benefits from local government practitioners (local government knowledge and expertise in asset management) providing strategic direction, sharing knowledge, and sharing resources and best management practices, that support all local governments. AMBC's approach - an approach that is created by practitioners, for practitioners - has acceptance within BC and abroad. It is a model that is being mirrored and replicated in other jurisdictions.

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1.0 About this Framework

Asset Management for Sustainable Service Delivery: A BC Framework (the Framework) establishes a high-level, systematic approach that supports local governments in moving toward service, asset and financial sustainability through an asset management process. The Framework addresses:

1. Why asset management is necessary.
2. What asset management is.
3. How asset management can be implemented.

The Framework is based on the graphic below. It recognizes there are many components to asset management and provides a circular, continuous pathway to link all components of the process together. The circular nature emphasizes that the process is on-going and requires continuous review and improvement.



This full version of the Framework expands on the short version by explaining each component of the graphic in more detail, and providing information about the why, what, and how of asset management.

The Framework focuses on desired outcomes rather than prescribing specific methodologies, thereby allowing local governments to develop and implement an approach that can be measured and incremental, tailored to the specific needs and capacity of individual local governments.

Overview of Sections of the Framework

Section 2.0 - Sustainable Service Delivery

Sustainable service delivery is the primary objective of asset management and is at the centre of the process diagram. This section describes why asset management is necessary and the benefits of asset management.

Section 3.0 - Asset Management

This section presents definitions of asset management and highlights the commonalities between different definitions and the fundamental principles of asset management.

Section 4.0 - Core Elements

This section describes each of the essential elements shown in the blue circle inside the diagram: assets, information, finances, and people. Each of these elements are required to support all asset management and service delivery activities.

Section 5.0 - Communicate, Engage, Review

The importance of ongoing communication, engagement, and review throughout the entire process of asset management. This section includes common topics for communication and engagement.

Section 6.0 - The Process

How to assess, plan, and implement asset management, and how/where to start. This section details each of the assess, plan, and implement components on the outer ring of the framework diagram by identifying why the component is important, activities to undertake, case studies and examples of application, other relevant resources, and where to start. Asset management needs to be tailored to a community's context rather than prescribed, thus the activities listed are intended to be examples of the tangible actions that might be undertaken at each stage in the process, rather than a comprehensive checklist of what must be done at each stage.

Section 7.0 - Resources and Tools

This Framework draws from and highlights existing resources, and does not attempt to duplicate them. A text box listing additional resources appears in each section of the Framework to highlight the publicly available asset management references and resources that document best practices and examples of that topic. This resources and tools section provides a comprehensive listing of resources referenced throughout the framework. All of the referenced resources are available through www.assetmanagementbc.ca

The Framework has been developed to reflect current international best practices (International Infrastructure Management Manual and the ISO 55000, ISO 55001 and ISO 55002 Standards for Asset Management).

The Framework recognizes the diversity of BC's communities, and that asset management, and the best practices that support asset management, must be scalable to community size, character, and capacity.

Finally, the Framework is a living document. Recognizing that best practices change and are updated, the Framework will also be periodically updated and made publicly available through Asset Management BC.

2.0 Sustainable Service Delivery

2.1 Why is Asset Management Necessary?

Sustainable service delivery ensures that current community services are delivered in a social, economic, and environmentally responsible manner that does not compromise the ability of future generations to meet their own needs.

Communities build and maintain infrastructure to provide services. These services support quality of life, protect health and safety, and promote social, economic and environmental well-being. Failure to care for infrastructure, manage natural resources and protect the services provided by nature, risks degrading - or even losing - the services communities enjoy and future generations will rely on.

Sound asset management practices support sustainable service delivery by integrating community priorities, values, and an informed understanding of the trade-offs between risks, costs, and services.



ASSET MANAGEMENT: THE PARADIGM SHIFT

"Sustainable service delivery integrates all the principles of asset management. It understands the value of land-use planning; and it understands the impacts that land-use planning has on service delivery. It also integrates the 'design with nature' philosophy."

"Asset management usually commences after something is built. The challenge is to think about what asset management entails BEFORE the asset is built. Cost-avoidance is a driver for this 'new business-as-usual'. This paradigm-shift starts with land use and watershed-based planning, to determine what services are affordable, both now and over time."

"We know that if we do things right at the front-end, the outcome will be a lot better, and everyone will wind up saving time and money. And we will have a healthier environment," concludes Derek Richmond, Secretary, Partnership for Water Sustainability in BC.



http://waterbucket.ca/gi/category/design_with_nature/sustainable-service-delivery/

Infrastructure represents a significant investment for every local government, and council members are the stewards of a local government's infrastructure assets. A formal approach to the management of infrastructure assets is essential to support making informed decisions, to provide services in the most cost-effective manner over the entire asset life cycle, and to demonstrate this stewardship to customers, investors, and other stakeholders. Applying asset management best practices ensures that infrastructure continues to provide sustainable and economically viable levels of service. These best practices profile and reinforce that:

1. Community infrastructure is a foundation of sustained growing economic and social development.
2. Infrastructure is critical to meeting the recreational, institutional, cultural and other needs of the community.
3. Properly built and effectively maintained infrastructure supports public health and safety, and mitigates potential adverse environmental impacts of society.
4. Financial sustainability requires strong connections between long-term infrastructure investment needs, long-term funding plans and financial performance measures to track progress over time.
5. Well informed decisions contribute to achieving the goals of the community, while balancing the financial capacity of current and future generations.



AN OUTCOMES FOCUSED APPROACH A LOCAL GOVERNMENT CAO PERSPECTIVE

"The Town of Gibsons has recognized, formally and in practice, that nature, and the ecosystem services it provides, are a fundamental and integral part of the Town's infrastructure system. Gibsons is one of the first communities in North America to do so. The policy change occurred with the adoption of the 2013/14 Strategic Plan. This hybrid document combines a sustainability framework with a more traditional strategic plan.

Natural assets are considered cheaper to operate; can last indefinitely, if properly managed; are carbon neutral, and in some cases can be carbon positive. It is important to differentiate green infrastructure, which is designed and built to mimic nature, such as a rain garden, from a natural asset such as a creek. Gibsons is also creating sub-categories in asset lists and financial statements to include Eco-Assets and implementing a strategy to manage these assets specifically.

Ultimately, the goal is to move from simply maintaining infrastructure to a service delivery model, where those services are delivered by the smallest number, the most natural, most energy energy-efficient, and the most reliable municipal assets, that cost the least to operate over the long term.



- Emanuel Machado, Chief Administrative Officer
[Town of Gibsons's Strategic Plan, 2013-2014](#)

3.0 Asset Management

3.1 What is Asset Management?

Asset Management is an integrated process, bringing together skills, expertise, and activities of people; with Information about a community's physical assets; and finances; so that informed decisions that support sustainable service delivery can be made.

There are many perspectives on asset management, and each of the international best practices identifies its own specific definition for asset management. While these definitions are each unique in the words they use, they share some clear and important messages:

1. Asset management is an ongoing, iterative process or approach, not a one-time project.
2. Asset management is holistic and integrated.
3. Asset management is about generating value and sustainable service delivery.

Regardless of whether a local government chooses to embrace one of the provided definitions of asset management, or to develop their own to align with their own culture and terminology, the definition should include consistent messaging.



ASSET MANAGEMENT: DEFINITIONS OF THE CONCEPT

ISO 55000 defines asset management as:

A coordinated activity of an organization to realize value from assets. Realization of value will normally involve a balancing of costs, risks, opportunities and performance benefits.

National Roundtable for Sustainable Infrastructure defines asset management as:

Asset management is an integrated business approach involving planning, finance, engineering and operations to effectively manage existing and new infrastructure to maximize benefits, reduce risk and provide satisfactory levels of service to community users in a socially, environmentally and economically sustainable manner.

International Infrastructure Management Manual describes asset management:

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost-effective manner.

3.2 Foundational Principles of Asset Management

Understanding asset management requires more than a definition statement. The process of asset management can be further illustrated through a set of foundational principles. These foundational principles are asset-centric statements that profile societal expectations of local government stewardship over community assets:

- ↳ Infrastructure assets exist for the purpose of delivering valuable services to the community.
- ↳ A community's service delivery needs should be met in a socially, economically and environmentally responsible manner that does not compromise the ability of future generations to meet their own needs.
- ↳ Local governments are the stewards of community assets, with a responsibility to ensure the delivery of services.
- ↳ Sustainable service delivery requires assets, people resources, and financial resources.
- ↳ Asset management supports local governments in managing the risks that threaten delivery of service, achieving and demonstrating stewardship of both assets and finances.
- ↳ Local governments are diverse and local conditions matter. Asset management uses best practices that are scalable and adaptable to unique circumstances in each community.
- ↳ Asset management is a process of continuous review and development.
- ↳ Leadership and the integration of asset management into organizational culture are critical.



ADDITIONAL RESOURCES – WHAT IS ASSET MANAGEMENT?

1. [An Asset Management Governance Framework for Canada](#) | National Round Table on Sustainable Infrastructure
2. [International Infrastructure Management Manual \(IIMM\)](#) | Institute of Public Works Engineering Australasia (IPWEA)
3. [ISO 55000:2014](#) | International Organization for Standardization
4. [Asset Management Primer – Canadian Infrastructure Report Card](#) | Federation of Canadian Municipalities, Canadian Construction Association, Canadian Public Works Association, Canadian Society of Civil Engineers



THE SUSTAINABLE FOUNDATION: SERVICE, ASSET & FINANCIAL SUSTAINABILITY AT THE DISTRICT OF NORTH VANCOUVER

“With clear Council direction, staff expertise and the use of international best practices in asset management, our interdisciplinary Asset Management Steering Committee has been working since 2006 to continuously improve and manage our existing infrastructure assets.

“At the District, our asset management is grounded in what we call “The Sustainable Foundation”; a fully integrated asset management approach that brings the four core elements and our entire organization into alignment. Integration is achieved by:

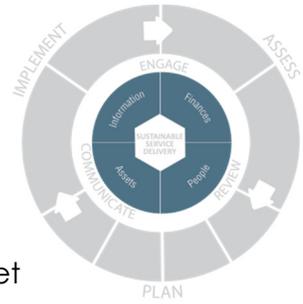
- ↳ Developing asset management plans from the bottom up and setting policy at the top. Strategy brings it all together.
- ↳ Combining best practices in accounting, engineering, financial planning and sustainability performance measurement.
- ↳ Shifting our culture away from silos to a corporate mindset focused on continuously building organizational capacity.
- ↳ Training staff in finance, engineering, operations and planning together on how to develop asset management plans and integrate these requirements into long-term financial planning.”

Andy Wardell, Director, Financial Services tells us, “Building a sustainable foundation takes time but if you don’t start you will not finish. Once you have a vision you need to make it a shared vision. That is what The Sustainable Foundation is really all about; having a shared vision, continuously striving to bringing alignment to the organization and the key stakeholders that all play a role in stewarding local government toward long-term sustainability”.



4.0 The Core Elements

People, information, assets, and finances are considered the core elements of asset management. Each of these elements is necessary for sustainable service delivery. Success requires the integration of these four elements throughout the process of asset management. These four core elements can be thought of as the four core resources needed to support the process of asset management, and thus necessary for sustainable service delivery.



As identified in the Foundational Principles of Asset Management, it is important to note that having limited, or scalable core element (or resource) capacity should not prevent the adoption of an asset management process. However, acknowledging and understanding these four core elements and committing to incrementally improve capacity within them, as well as how they integrate, is critical to success.

Assets

Assets are the physical infrastructure owned by local governments to enable service delivery. Assets include, but are not limited to, water and wastewater systems, drainage and flood protection systems, transportation systems, civic facilities, parks, and fleet. It is also important to understand both existing and new assets, and consider future assets in planning. Assets may also include natural resources and the essential ecological functions nature provides.

Information

Information is needed to support decisions that are cost effective, manage risks, and support long-term service delivery. The quality of information and its collection and dissemination can evolve over time to strengthen informed decision-making. Answering the following questions provides much of the information needed:

- ↳ What assets do you own and where are they?
- ↳ What is the depreciated value of your assets?
- ↳ What are the conditions (physical, demand/capacity and functionality) and expected remaining life of your assets?
- ↳ What service and asset risks need to be prioritized and managed?
- ↳ What is the current and desired or targeted level of service?
- ↳ When will repair, upgrade, or replacement be required?
- ↳ How much will it cost?
- ↳ Which assets can or should be retired?

↳ Which new assets may be required and when?

Compiling this information into a consolidated asset inventory can be helpful for decision-making. Each local government in BC has a basic inventory/register of their assets - developed to support Public Sector Accounting Board reporting requirements - which can serve as a starting point for collecting asset information.

Information should be updated over time to capture asset acquisitions or renewals, changing costs, retired assets, changing asset conditions, risk, or level of service expectations.

People

Asset management is a corporate responsibility, and the importance of having the right people and the right processes cannot be overlooked. Local governments that successfully implement asset management have:

- ↳ Staff and elected officials who understand the need for and benefits of asset management with a commitment to continuous improvement.
- ↳ Clear community and corporate priorities and asset management objectives.
- ↳ Effective leadership throughout the organization, including top management, that creates and promotes the vision and values reflected in an asset management policy.
- ↳ Culture that fosters teamwork and integration across departments, throughout the organization.
- ↳ Culture that values informed decision-making.
- ↳ Staff and elected officials that understand the need for lifelong learning to develop their knowledge, experience and capacity.

Finances

A holistic understanding of the infrastructure required to deliver services and associated long-term costs of capital, operations, and maintenance, is a critical element of asset management. Technical and financial information must be linked to inform long-term decision-making. Proactive asset management will yield fewer service disruptions, more predictable results, and lower total lifecycle costs than a reactive approach to repair and replacement.

Debt can be either a useful tool for a local government, or a burden and significant risk. In general terms, the correct amount of debt is subjective and context specific. Holistic and strategic use of debt is best when it augments progress toward steady state replacement of existing assets.

5.0 Communicate, Engage and Review

Communicating, engaging, and reviewing are considered to be a set of ongoing activities that are applied, to some extent, within each stage of the process. Although communicating, engaging, and reviewing are ongoing and embedded activities, their importance justifies dedicated consideration to ensure that communication is central to the process, and not an afterthought.



Purpose

The purpose of communicating, engaging, and reviewing is to ensure that people and departments within an organization are aligned, working towards the same goals, and efficiently implementing asset management by applying the information and outputs in decision-making and programming. Communication and engagement is also important in obtaining support for asset management from elected officials, staff, residents, and other ratepayers.

Approach

The scope of communication, engagement, and review will vary based on organizational context, culture, and the stage of the process the organization is at. The scope and scale may differ, but there are important considerations about approach that apply to all contexts:

- ↳ Identify the various stakeholders or audiences, and the concerns or perspective of each group (e.g. council, ratepayers, management, operations, etc.).
- ↳ Identify the goals of each type of communication or engagement.
- ↳ Identify when it is necessary to inform or to ask and design communication activities to meet goals.
- ↳ Leverage both formal and informal communication and engagement channels.
- ↳ Use information obtained through communication and engagement to support the review and improvement of the asset management process.

Common topics for asset management communication and engagement include:

- ↳ The importance of infrastructure in service delivery
- ↳ State of assets
- ↳ State of finances and funding challenges
- ↳ Levels of service
- ↳ Service delivery costs and trade-offs

- ↳ The organization's approach to asset management
- ↳ Staff and community members roles
- ↳ The work being done to ensure long-term sustainable service delivery

These topics are relevant both internally and externally to an organization, however, the level of detail and the delivery of the message will differ. It is often advisable to develop internal alignment and an understanding of assets, services, and related costs and risks prior to external communication and engagement.

Activities

Each organization will develop and tailor communication and engagement activities to suit their unique context. Some examples of activities include:

- ↳ Establishing an Asset Management Steering Committee with a mandate and a regular meeting schedule.
- ↳ Identifying executive sponsors.
- ↳ Developing and regularly communicating an asset management vision statement.
- ↳ Regularly engage staff at meetings (horizontally and vertically throughout the organization).
- ↳ Communicating progress in public reports (e.g. financial plans, annual reports, general purpose financial statements, etc.).
- ↳ Developing and implementing an asset management communication policy, strategy and/or plan.
- ↳ Leveraging public engagement events (e.g. open houses, satisfaction surveys, community workshops, etc.) to obtain input to inform asset management decision-making and priorities (e.g. willingness to pay, levels of service, etc.).
- ↳ Frequent informal reviews that ensure activities are aligned with priorities.
- ↳ Regular formal review of the asset management policy, strategy, and plan(s); and communicate progress.



THE IMPORTANCE OF COMMUNICATION

Local infrastructure is the foundation of the health, well-being, and economic prosperity of communities across the country. Throughout my tenure in local government as Mayor and Councillor, it had become apparent to me that the general public remains largely unaware of the cost implications of maintaining and renewing existing infrastructure.

During my final term as Mayor, I conducted an inquiry project for the Town of Golden to investigate how the Town of Golden engage the community in Asset Management. The goal was to develop a meaningful process that was focused on engaging the community and providing an opportunity to bring the staff, elected officials, and residents of Golden together to collectively decide what services the people need, want, and are willing to pay for. There were two opportunities for residents to participate in the inquiry. Data analysis led to the following findings:

1. Residents of Golden placed a high value on communication, and they wished to be able to access information through a variety of channels.
2. Although the citizens of Golden recognized the broad range of services provided by the local government, they did not understand the magnitude of the cost associated with providing those services or replacing those services.
3. Minor tax increases were generally acceptable to maintain or to improve levels of service.
4. The roles and responsibilities of local government are not always clearly understood by residents.

These findings, combined with my experience as Mayor of Golden, resulted in the following conclusions:

1. Citizens expect to be involved in local government decisions and to have a say on how their tax dollars are spent.
2. Communication, engagement, and education are critical factors for:
 - a. improving the level of trust between the citizens and the local government;
 - b. building awareness and understanding of the roles, responsibilities, and limitations of the local government; and
 - c. creating capacity in citizens to participate in conversations involving community owned assets.

Local governments need to engage their communities in a dialogue to consider what resources/services they want and, more importantly, what are they willing to pay for. Building a common understanding allows the community to address this complex issue in a collaborative manner.

- Christina Benty, Former Mayor of Golden
Owner of Christina Benty Strategic Leadership Solutions



ADDITIONAL RESOURCES – COMMUNICATE, ENGAGE, REVIEW

1. [Asset Management Communication Plan](#) | City of Prince George
2. [AM Communications Strategy](#) | Mickelson Consulting Inc.
3. [Asset Management: From Awareness to Action](#) | Exchange Magazine Fall 2014
4. [Level of Service and Community Engagement: Practice Note 8](#) | Institute of Public Works Engineering Australasia

6.0 The Process of Asset Management

6.1 An Overview

Asset management is a continuous quality improvement process. This ongoing process is incremental and scalable, involving:

- ↳ Assessing capacity, demand, and results;
- ↳ Planning what needs to be done; and
- ↳ Implementing the plans.



Continuous quality improvement (CQI) is a process to ensure programs systematically drive improved services and increase positive outcomes. CQI is a cyclical, data-driven process; it is proactive, not reactive. CQI, in an asset management environment, utilizes and integrates the four core elements to make incremental positive changes – even when things are going well. CQI is a process that involves ongoing assessment, planning and implementation cycles.

The process section of the Framework outlines each component of the asset management process and why the component is important. Typical activities have been listed to provide examples of what may be included in developing the process component, but this is not a checklist of what needs to be done. The list is not necessarily comprehensive, but is a good representation of the activities required.

It is important to recognize that within each component, the typical activities that have been identified should be considered scalable to meet the current capacity or address the priorities of each individual local government.

Additional resources for each part of the process have been listed to support deeper understanding.



TIPS FOR GETTING STARTED

There is no 'correct' place to start. Each local government must consider where they are at within the continuous quality improvement process. Some local governments may choose to invest in **training for key staff or council**, to begin to build awareness of asset management and how to use this Framework. For other local governments, asset management is a process that they have already begun to deliver, whether formally or informally. For those local governments that may be initiating the process for the first time, a reasonable place to begin is with 'assess'. These three steps are a common place for starting the process:

- 1. Assess existing practices.** Conduct an assessment of asset management practices and organizational capacity to identify what is being done well and where improvement is needed. Refer to the Assess Asset Management Practices section for additional information, tools and resources.
- 2. Take stock of assets and finances.** Assess the asset inventory/registry and condition information (if available) to provide estimated remaining life of assets. This can be integrated with available financial data regarding replacement costs, operations and maintenance costs, and allocations. The existing Tangible Capital Asset registry used for financial reporting is a good starting point for basic asset inventory and historic cost information. Refer to the Assess Current State of Assets section for additional information, tools and resources.
- 3. Build awareness.** Raise awareness with staff and council about the current status of assets and finances, compared to long-term goals and objectives. Building awareness is key to getting the commitment needed to move through the asset management process and exercise continuous improvement. Refer to the Review, Communicate and Engage section for additional information, tools and resources.

6.2 Assess

6.2.1 ASSESS ASSET MANAGEMENT PRACTICES

This stage in the process is about determining the organizational capacity to undertake asset management as an ongoing corporate function. It involves a high level assessment of the maturity of an organization's practices spanning the four core elements:



- ↳ People: development of a cross functional team, asset management knowledge and skills, communication and alignment, clarity of roles and responsibilities.
- ↳ Assets: availability, accessibility, accuracy, reliability, and integration of raw asset data.
- ↳ Information: development and use of asset management policies, strategies, and plans (raw asset data that has been processed into information that can be used for decision-making).
- ↳ Finances: policies and practices related to long-term financial planning, infrastructure backlog, cost recovery, reserves, debt, and financial tracking.

Assessing asset management practices will also help an organization identify the practices and processes that are currently in place; the integration of practices and processes; how well they are applied and how effective they are; and areas of organizational strength and opportunities for improvement.

The assessment results serve as a foundation for developing and implementing the ongoing asset management process.

Why It's Important

Proven success in the development and implementation of asset management processes relies on a strong corporate alignment to the approach and commitment to continuous improvement. When starting to implement asset management, it is common for people within the organization to have varying perspectives on the effectiveness of practices in place, priorities for improvement, and the ideal approach to asset management. This assessment supports the establishment of a common understanding among different perspectives of the current state of practices. The assessment also:

- ↳ Builds understanding of what is involved in asset management.
- ↳ Identifies asset management practices that may be in place under a different name.

- ↳ Supports alignment across departments for a common approach to asset management.
- ↳ Supports integration and understanding within the organization.
- ↳ Helps organizations identify priority actions for making effective and meaningful improvements.
- ↳ Provides the basis for engaging council/board in adopting asset management processes.
- ↳ Establishes a baseline for monitoring continuous improvement.

Activities

- ↳ Hold an inter-departmental workshop to assess the asset management practices and competencies of the organization, using a widely accepted assessment tool or framework (see additional resources) and knowledgeable facilitators (internal or external);
- ↳ Conduct a high-level assessment of current organizational policies, strategies, and plans for connection to and alignment with asset management objectives and practices;
- ↳ Use assessment results to establish an organizational benchmark of asset management practices;
- ↳ Communicate the results of the asset management practices assessment to internal stakeholders, such as staff, management, and council; and
- ↳ Conduct an annual review of asset management practices and competencies, tracking progress and improvement against the established benchmark.
- ↳ Keep a collective "Improvement Register" to record future activities beyond your present means.



WHERE TO START WHEN DEVELOPING A CORPORATE ASSET MANAGEMENT PROGRAM - ASSETSMART

“The City Kelowna faced this dilemma approximately three years ago when they started their corporate asset management journey. Prior to 2012, the City’s asset management was being carried out within asset “silos” (e.g. water, wastewater, transportation, parks, building, etc.) with limited cross department integration. This presented a number of challenges and inefficiencies as departments vied for limited funding at budget time and there were lost opportunities to bundle renewal projects. So where do you start? Kelowna utilized the tools and resources from AMBC beginning with Asset SMART – A Local Government Self-Assessment Tool. The process and questions from Asset Smart were presented to the City’s asset management cross functional team to identify gaps in the existing asset management practices and to develop priority projects for advancing the asset management program. The priority projects identified in the “up-front” Asset Smart exercise have proven to be very valuable for advancing the City’s asset management program and the City continues to work its way through the priority projects identified three years ago. Asset SMART – A Local Government Self-Assessment Tool is an excellent way to start development of a community’s asset management program.”



– Joel Shaw, Capital Assets and Investment Manager,
City of Kelowna



TIPS FOR GETTING STARTED

Build a team. Assemble a corporate asset management team with representatives from finance, public works, engineering, planning, and other areas to undertake an integrated assessment. Identify a team champion to ensure the initiative moves forward. The team should evaluate their own capacity and resources available, and accordingly choose to lead the assessment internally, or to access external resources and support to facilitate the assessment.



ADDITIONAL RESOURCES – ASSESS ASSET MANAGEMENT PRACTICES

1. [AssetSMART](#) | BC Ministry of Community, Sport and Cultural Development
2. [NAMS.PLUS Maturity Assessment](#) | Institute of Public Works Engineering Australasia

6.2.2 ASSESS THE CURRENT STATE OF ASSETS

Assessing the current state of assets includes gaining a clear understanding of the:

- ↳ Asset inventory/asset register
- ↳ Asset conditions
- ↳ Customer and technical levels of service
- ↳ Asset risks
- ↳ Asset costs (capital, operations, and maintenance)

Infrastructure report cards and infrastructure status reports are common examples of the output of an assessment of the current state of assets.

Some asset information may not be readily available and may need to be compiled into a consolidated asset register from diverse sources, or created for the first time. Whether from past assessments, studies, plans, or staff knowledge, pulling together existing information is the best place to start. Investing time and resources into creating new information should be prioritized only when the new information will significantly improve decision-making. Improving the organization's understanding of the state of the assets over time is part of the ongoing process of improvement.

This assessment of the current state of assets is the foundation for the development of asset management plans. These plans identify the gaps between the current state of assets and the desired state of assets and service levels; and the activities needed to close these gaps.

Why It's Important

This assessment - especially the first time it is conducted - is the beginning of the local government journey into asset management. It provides the basis for knowing the assets and their role in service delivery, identifying risks, understanding the resources required to sustain the assets at current levels of service, and quantifying what (if any) infrastructure backlog exists.

A comprehensive assessment can also:

- ↳ Indicate the effectiveness of existing asset management practices.
- ↳ Be easily communicated with staff and council to build awareness of the current state, risks and priorities.
- ↳ Inform the development of organizational asset management objectives.
- ↳ Form the basis for policy, strategy, and plan development or improvements.

Assessing the current state of assets is not merely a one-time activity that is done at the outset of building asset management practices. It is important that information about what assets are owned, their replacement value, age, risk, and role in service delivery is updated as new assets are added or replaced, degrade in condition or are retired, the replacement costs change, or the community's service needs change. An asset registry is a powerful tool that can inform decision-making about day-to-day activities or long-term plans, and it must be kept up-to-date to add value to the organization.



ASSET CONDITION ASSESSMENT AND GAS TAX FUNDING

"It is my view that our asset management project is our single, greatest corporate challenge. Every service we deliver depends upon the many millions of dollars in tangible capital assets owned by the City. Led by Council, we have a statutory responsibility for the stewardship of those assets on behalf of all present users, and on behalf of all those who will use them in the future.

Asset condition assessment is an on-going practice that underpins the entire project. However, with a limited flow of funding each year, the approach to it will be strategic. For example, in our early stages, it is generally better to develop basic information on all assets in all asset classes, rather than exhaustive information on a few assets isolated within one or two asset classes or departments. This is because the City's assets exist to deliver a broad range of public services, and each service-delivery unit should have equal assurance that the assets it depends upon will not suffer in-service failure.

To that end, the Asset Management Working Group will use the Condition Grading System regardless of asset class and asset condition assessments will have continuing priority use of Gas Tax revenue as its funding source."



– David Allen, Chief Administrative Officer to Courtenay,
Asset Management Working Group

Activities

- ↳ Identify and compile existing sources of asset information, such as the asset register developed for PSAB compliance; asset plans, reports, and studies; condition assessments; operations logs or reports; maintenance history; specialized staff knowledge.
- ↳ Determine the appropriate type of asset register or inventory to develop, based on current capacities, needs, staffing levels, and ability to use software.
- ↳ Develop the asset register to consolidate asset information:
 - Physical asset attributes,
 - Replacement values,
 - Asset conditions - physical condition, demand/capacity condition, and functional condition,
 - Asset risk profiles, including emerging risks such as changing climate,
 - Current and desired levels of service, and,
 - Long-term financial requirements for capital, maintenance and operating expenditures.
- ↳ Conduct asset condition assessments as appropriate, or document known asset condition information.
- ↳ Conduct asset risk assessments, based on the probability and consequence of failure.
- ↳ Define the current customer and technical levels of service.
- ↳ Tabulate current capital, operations and maintenance expenditures by asset class.
- ↳ Identify fully amortized assets and review their suitability for continued service.
- ↳ Extend life cycles of fully amortized assets based on sound condition assessments.
- ↳ Evaluate accumulated amortization by asset class and compare it to past and present maintenance and capital renewal expenditures of that asset class.
- ↳ Identify changes in asset replacement values, condition, risk profiles, and levels of service if the state of assets has been assessed in the past.
- ↳ Compile information from the assessment into a summary report and communicate key messages with staff and council as context for the need for asset management.
- ↳ Develop relevant policies and programs to ensure that the asset register is kept up-to-date as conditions, assets, and costs change.



TIPS FOR GETTING STARTED

Start small. Asset management includes all asset classes, but it may be easier to start with one class as an internal learning exercise to build understanding of the process and achieve a “quick win”.

Build upon your Tangible Capital Asset (TCA) Registry. If no other asset registry is in place, the information compiled for TCA reporting can be a good place to start. This information can be compiled into your asset registry. Use widely available software tools, such as Excel and Geographical Information System (GIS) to develop the initial asset registry. More sophisticated tools can be implemented at a later date if needed.

Invest in training. Send representatives from finance, public works, and engineering to asset management training together as a team (see Asset Management BC for training opportunities). Up-front training can go a long way to building an organization’s capacity for asset management and ensuring that the organization can make progress quickly.



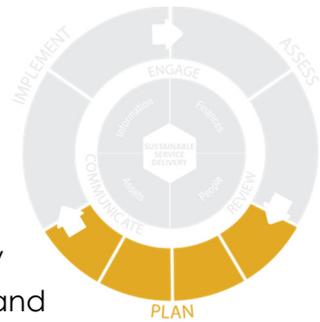
ADDITIONAL RESOURCES – ASSESS THE CURRENT STATE OF ASSETS

1. [Asset Management Data Register](#) – Master Municipal Construction Documents Association
2. [NAMS.PLUS](#) - Institute of Public Works Engineering Australasia
3. [Developing Levels of Service](#) – Federation of Canadian Municipalities
4. [International Infrastructure Management Manual](#) – Institute of Public Works Engineering Australasia
5. [Primer on Asset Management](#) – Canadian Infrastructure Report Card
6. [Condition Assessment and Asset Performance Guidelines](#) – Institute of Public Works Engineering Australasia
7. [Practice Note 8: Levels of Service & Community Engagement](#) - Institute of Public Works Engineering Australasia
8. [Infrastructure Review Presentation](#) - City of Victoria

6.3 Plan

6.3.1 ASSET MANAGEMENT POLICY

The asset management policy is a document that formalizes corporate commitment to asset management. The policy broadly outlines the principles and guides the development and implementation of asset management across the organization in a systematic and coordinated way, consistent with the organization's plans.



The asset management policy will identify the connection between community objectives and the management of infrastructure assets; principles to guide decision-making about assets and services; the integration of asset management into other documents, plans, and processes; and the organization's approach to asset renewal and financing.

Some example policy principles include:

- ↳ All relevant legislative requirements together with political, social, and economic environments will be taken into account in asset management.
- ↳ Asset management principles will be integrated within planning and operational processes.
- ↳ A consistent asset management strategy will exist for implementing systematic asset management and appropriate asset management best-practices throughout a municipality.
- ↳ Asset management plans will be developed for major service/asset categories. These plans will be informed by community consultation consistent with engagement strategies and activities; land use planning, financial planning and reporting.
- ↳ Asset renewals and agreed service levels will be identified in asset management plans. Asset management plans will be used to update the long-term financial plan.
- ↳ An inspection regime will be used to ensure agreed service levels are maintained and neither drop nor creep without input or Council approval.
- ↳ Annual budget deliberations will be informed by asset renewal alternative options, along with operating, maintenance and capital budget impacts. Service and risk consequences of asset renewal alternative options will be made clear in both asset management plans and budget documentation.

- ↳ Asset renewal plans will be prioritized and implemented progressively based on agreed service levels and the effectiveness of the current assets to continue providing that level of service.
- ↳ Assets are to be managed, valued and depreciated in accordance with appropriate best practice using replacement values - not historical costs.

Why It's Important

Having an asset management policy is critical to ensuring effective long-term implementation of asset management. The policy:

- ↳ Sets out clear guidance for council and staff for undertaking the asset management process. This includes corporate goals and objectives and may set up timelines for achieving results.
- ↳ Establishes the organization's commitment to asset management and stable, long-term funding for the operation, maintenance, renewal, replacement or decommissioning of infrastructure.
- ↳ Ensures the approach to asset management is integrated throughout the organization and aligned with high level objectives.
- ↳ Provides direction for developing the asset management strategy and asset management plans.



ADOPTION OF AN ASSET MANAGEMENT POLICY CITY OF MERRITT

"Adoption of the asset management policy helped formalize some of the good things we were already doing, and define what we could be doing better. Adoption of an asset management policy helped us create a culture of big picture thinking. Every time we take on a new asset, we are looking at what it's going to cost to operate and eventually replace in the future. The asset management policy also helped set the tone for budget deliberations and everyone is always looking forward and not just at today. The policy helped us to look at our utility systems from a full life cycle cost basis. This was instrumental in setting user rates that will sustain the utility systems into the future and plan for their renewal. With our asset management policy, we are no longer in a state of crisis but have set rates that will ensure the safe reliable operation and renewal of our utility systems well into the future."

- Shawn Boven, Public Works Manager/Approving Officer, City of Merritt



Activities

- ↳ Identify linkages between the long-term community vision, objectives, and plans; and the short- and long-term management of assets including risks and opportunities.
- ↳ Identify the key drivers for asset management.
- ↳ Communicate the state of assets and practices to provide context for policy setting.
- ↳ Establish goals and objectives for the asset management process that are aligned with asset management drivers, in order to set a clear understanding for council/board and staff undertaking the asset management process.
- ↳ Draft a policy (refer to resource links and sample policies referenced).
- ↳ Get council/board endorsement on the policy.
- ↳ Communicate the policy throughout the organization.
- ↳ Review and update the policy as needed, or every three to five years.



TIPS FOR GETTING STARTED

Identify the right approach. The most efficient path to implementing successful asset management depends on the organization. Some find success with a **top-down approach**, starting with the endorsement and support of senior management and council. A top-down approach requires leadership and council buy-in, vision, and strong communication abilities. Endorsing an asset management policy can come early in these organizations. Other organizations begin with a **bottom-up approach**. In these organizations, early asset management plans are developed to provide good and clear examples to senior leadership and council of the value of asset management. A bottom-up approach requires motivated teams working together and strong communication among team members.

These approaches are not mutually exclusive; these approaches can be very effectively used together.



ADDITIONAL RESOURCES

1. [Guide to Developing a Municipal Asset Management Policy](#) – Local Government Asset Management Working Group
2. [Asset Management Policy Manual](#) | Town of Gibsons
3. [Asset Management Policy](#) | City of Vernon

6.3.2 ASSET MANAGEMENT STRATEGY

The asset management strategy is a corporate-level document that summarizes how organizational objectives relate to the development of asset management objectives, and how the organization will approach the development of asset management practices and plans to achieve the objectives. The asset management strategy:

- ↳ Documents the current state of assets (e.g. replacement values, conditions, risk, levels of service), establishing a big picture context for the need for asset management.
- ↳ Outlines current asset management practices.
- ↳ Identifies the desired state of assets, the target levels of service and critical risks to be managed.
- ↳ Provides a guide to each department to effectively implement asset management by documenting the desired asset management practices, including asset management objectives and the corporate approach to developing and implementing asset management plans.
- ↳ Identifies how other corporate plans for finances, community growth, and sustainability are linked to asset management plans, and how asset management decision-making is integrated into the organization.
- ↳ Provides clarity on the roles and responsibilities of the asset management team.
- ↳ Summarizes projected resource requirements for developing and implementing asset management plans, including future requirements for capital, operations, and maintenance.
- ↳ Identifies the approach to reviewing and updating the strategy.

The strategy also outlines a plan for integrating the elements of people, information, assets, and finances to achieve the asset management objectives.

Why It's Important

The asset management strategy provides the link between the policy level of the organization and the day-to-day implementation, and links asset management to other corporate initiatives. Without alignment of objectives, priorities, and approach, an organization risks ineffective and inefficient use of assets, staff time, and financial resources.

The benefits of an asset management strategy include:

- ↳ Achieving corporate alignment and capacity in the approach to asset management.

- ↳ Communicating a clear direction on the nature of integration between asset management and other plans and processes.
- ↳ Developing a connection point between asset management policy and asset management plans (tying it all together).
- ↳ Having accessible and uniform information about the state of assets and asset management practices to inform high-level decision making and budgeting.



MAKING PROGRESS IN ASSET MANAGEMENT

“Prince George assessed its capacity to undertake asset management (AM) in 2004 followed by development of a business plan in 2006 which identified the tools required and how these might be integrated to optimize city systems while managing the costs of ownership. Prince George initiated a “top-down” approach to evaluate the high level and long-term funding requirements for the replacement of its infrastructure.

The funding requirements for its roads, drainage, water and sanitary networks were first reported to Council in 2006. In 2007 the City added an Asset Manager position to develop internal capacity and provide the resources to allow the AM work to continue to develop. In 2013 the city's estimate of the replacement value of its assets was \$2.3 billion as compared to a reported cost (PSAB-3150) of \$810 million. This information together with estimates of the City's backlog of infrastructure re-investments together with Council understanding and support of the importance of the issues to be addressed has increased the City's AM activity.

Prince George's AM Policy was implemented in December 2012 followed by its first Strategic Plan in February 2013. The strategic plan outlines the progress made from 2004 to 2013 and includes a corporate work plan for the short-medium term. The strategic plan is now under review together with updates to the replacement value of the City's infrastructure. All of this activity is scalable to any organization along with a varying sophistication of available tools from spreadsheets to custom software which can be tailored to an organization's AM maturity.”

- Frank Blues, Asset Manager,
City of Prince George



Activities

- ↳ Articulate asset management drivers.
- ↳ Identify corporate asset management objectives.
- ↳ Define the linkages between asset management and other organizational plans or initiatives.
- ↳ Develop a high level corporate asset management framework.

- ↳ Develop a standard corporate approach to:
 - the development and update of asset management plans,
 - measuring asset management performance against asset management objectives, and,
 - asset management and financial sustainability performance reporting.
- ↳ Communicate progress on the asset management strategy with senior leadership and council annually.
- ↳ Review the asset management strategy every three to five years.
- ↳ Provide an asset management orientation to new councils to ensure understanding of asset management and the corporate asset management strategy.



TIPS FOR GETTING STARTED

Build a framework. Rather than developing a full strategy, it can be helpful to begin by drafting a high-level corporate asset management framework. The framework summarizes the key elements of asset management, the organization's approach to asset management, and how asset management connects to other corporate plans and processes. This framework can be considered the skeleton of the asset management strategy, and can be easily reviewed and iterated by internal stakeholders, building awareness and alignment with staff.



ADDITIONAL RESOURCES

1. [Infraquide – Managing Infrastructure Assets](#) | Federation of Canadian Municipalities and National Research Council
2. [ISO 55000](#) – International Organization for Standardization
3. [Asset Management Framework](#) | District of North Vancouver

6.3.3 ASSET MANAGEMENT PLAN

A local government may choose to have an asset management plan for each asset type, and/or a corporate asset management plan that includes all of the assets owned by the organization. Each asset management plan should tell the story of the assets it discusses. It should be a readable and user-friendly document that is long-term in scope. These asset management plans are continuously improved and regularly incorporate new information or changing requirements.

Asset management plans identify:

- ↳ Assets owned and their condition.
- ↳ Gaps between the current and desired levels of service.
- ↳ Risks to service delivery.
- ↳ Practices, projects, and programs required to meet organizational asset management objectives, manage risks, and achieve the desired level of service in the most cost effective way.
- ↳ A timeline for implementation.
- ↳ Resources required.
- ↳ Necessary future improvements to the plan.

While each asset or group of assets is unique with specialized requirements, certain key elements can be standardized using a corporate approach to achieve the best results including:

- ↳ Condition measures (e.g. very good - 1, good - 2, fair - 3, poor - 4, very poor - 5).
- ↳ Risk frameworks based on the consequence and probability of failure.
- ↳ Levels of service focused on both customers and technical requirements.
- ↳ Capital, maintenance and operating expenditure requirements.
- ↳ The planning time frame (minimum 10 years) and structure to support easy update of long-term financial plans.

Why It's Important

Asset management plans provide clear direction on what to do, when to do it and how much it will cost. It should also identify the consequences of not doing it. The plan:

- ↳ Helps plan for and allocate human and financial resources.
- ↳ Provides a practical guide to making decisions about assets.
- ↳ Supports the implementation of the asset management strategy and policy.
- ↳ Identifies actions for achieving the asset management objectives.
- ↳ Provides the basis for developing the long-term financial plan.



ASSET MANAGEMENT OUR PRACTICE

Our approach to asset management can be compared to living a healthy lifestyle that involves discipline and making good choices; a multifaceted and lifelong endeavor. You can't complete a 6 month program and claim a successful finish. Neither is it a do or don't proposition whereby you don't take care of yourself and you immediately wither and die. Thus, the issue is not whether you do "asset management"; it is whether you manage your assets well. Accordingly, we view asset management as a philosophy that we practice. This helps us imbed what we believe to be a sound and responsible methodology for effective service delivery in everything we do.

Our asset management strategies are founded in achieving sustainable service delivery.

- No unfunded liabilities by reconciling service levels desired by the community with the community's willingness to pay (LOS vs \$).
- Integrated decision making across the service delivery spectrum.

In order to achieve our goals we differentiate and focus on both the technical and political processes involved to secure successful outcomes.

Technical aspects need but follow well established asset management methodologies. The trick is to keep it as simple as possible and avoid overanalyzing.

Political tactics can be much more challenging but are essential to obtaining support from decision makers. Obtaining long-term political support requires achieving community buy-in. Every practical long-range infrastructure plan or initiative involves change and leading the change represents the challenge. We strive to put as much focus and effort into the public aspects of our asset management practice as we do on technical aspects and we believe the combination of these factors has been key achieving success.

Case in point is our Water Master Plan adopted by Council in 2012 which identifies a very ambitious \$80 million capital improvement program intended to be delivered over 20 years. The plan required raising water rates from approximately \$500 per year per household to \$750. Obviously, this had the potential to result in significant community backlash. Our success in obtaining community buy-in resulted from clearly articulating the issues followed by presenting solutions including benefits. Inevitably the questions boil down to "What's in it for me?" and "How much is it going to cost?". We didn't always get enthusiasm but we often got understanding, "I don't like it but I get it!". In the end our objective is not consensus but community solidarity because solidarity is much more powerful and lasting than consensus which is apt to change.



- Greg Buchholz, Director of Infrastructure Services,
District of Lake Country

Activities

- ↳ Obtain asset information (outputs from assessing the state of the assets).
- ↳ Identify data gaps.
- ↳ Prioritize and fill data gaps, or make informed and documented assumptions where there are information gaps.
- ↳ Document current levels of service and asset performance.
- ↳ Identify the target level of service for each asset type.
- ↳ Identify actions required to meet the target level of service and the associated costs.
- ↳ Review operations and maintenance costs.
- ↳ Compile information into a minimum 10-year plan for each asset class.
- ↳ Identify improvements to asset management practices and processes.
- ↳ Summarize information into an asset management plan for each service area (e.g. water, transportation, recreation, etc.).
- ↳ Communicate the asset management plan(s) throughout the organization.
- ↳ Review the asset management plan annually, and update with new information or adjustments.



TIPS FOR GETTING STARTED

Start wherever you are. If an asset management strategy is in place, it should outline the corporate approach to developing asset management plans. If the corporate approach has been defined, it can be followed and areas for improvement can be identified. For some organizations, developing a basic asset management plan is the first thing they do, and no corporate approach has been defined yet. In most cases, these early asset management plans are based on available information and anecdotal knowledge. They have large information gaps and significant areas for improvement. However, these early plans are important tools for communicating the process of asset management, and can be very helpful in building momentum in an organization.



ADDITIONAL RESOURCES

1. [Asset Management Roadmap](#) | Asset Management BC
2. [Roadmap Case Studies](#) | Asset Management BC
3. [Primer on Asset Management](#) – Canadian Infrastructure Report Card
4. [Infrastructure Costs and Urban Growth Management](#) | Sustainable Cities International
5. [Optimized Asset Decision Making @ the Region of Peel](#) | Region of Peel
6. [NAMS.PLUS \(Training Program\)](#) | Institute of Public Works Engineering Australasia
7. [Level of Service & Community Engagement: Practice Note 8](#) | Institute of Public Works Engineering Australasia
8. [Presentation on Developing Levels of Service](#) – City of Prince George

6.3.4 INTEGRATE TO LONG-TERM FINANCIAL PLAN

The integration of asset management plans with the long-term financial plan is necessary for sustainable service delivery. This integration identifies gaps between long-term potential costs and available funding, and includes a review of requirements for capital (renewal/growth), operations, and maintenance. Integrating asset management plans with the financial planning process provides the basis for developing, reviewing, updating, and implementing financial strategies for sustainability. This integration may result in the identified need to reduce costs (adjust service levels) or increase funding (raise revenue).

Residents and ratepayers are both the recipients of services and the source of funding. Therefore adjustments between service levels and funding should reflect the community's priorities, willingness to pay, and Council decisions in fulfilling their stewardship and governance obligations. Both asset management plans and the long-term financial plan require regular updates and are the foundation for significant parts of the annual budget plan.

Why It's Important

Integrating services and financial resources is necessary for sustainable service delivery. This integration:

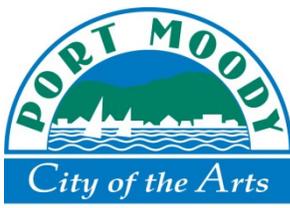
- ↳ Translates your asset management plan from a wish list to an actionable plan.
- ↳ Stabilizes costs over the long-term.
- ↳ Puts you on track to manage and reduce your infrastructure backlog.
- ↳ Provides justification for financial support from higher levels of government, or the basis for evaluating alternative models of service delivery (e.g. Public Private Partnerships), reduced levels of service or service/asset elimination.



LONG-TERM FINANCIAL PLANNING IN PORT MOODY

Port Moody Council and staff fully endorse the principles of sustainable financial planning to ensure the financial well-being of future generations. In 2012, Council funded a detailed assessment of all of our major assets and then proceeded to develop and implement a long-range strategic financial plan. This plan took into consideration the current asset renewal backlog and the future planned replacement needs. Although our water and sewer utilities were appropriately funded, it was determined that other areas, particularly roads, bridges, and facilities, were under-resourced and required an increase in our asset levy of approximately 10%.

Port Moody Council considered the detailed analysis and the longer-term financial implications and committed to addressing infrastructure renewal before adding new infrastructure. As City Manager, there is nothing more rewarding than having a brave Council who addresses the “unsexy” asset replacement challenges before adding any “sexy” new projects. Port Moody Council should be congratulated on their courage to do the right thing – sustain your existing assets before adding anything new. These great decisions were a direct result of developing the detailed science behind long-term asset renewal.



– Kevin Ramsay, City Manager,
City of Port Moody

Activities

- ↗ Compare asset management plans with the long-term financial plan to identify gaps between projected costs and projected revenues.
- ↗ Communicate the value and costs associated with service delivery with Council and residents.
- ↗ Consult residents and ratepayers about willingness to pay for services and service levels.
- ↗ Identify an annual target asset investment level that is considered sustainable.
- ↗ Implement strategies to gradually raise revenues or reduce costs to meet the target annual investment level and desired levels of service.
- ↗ Identify and adjust service levels to reflect affordability and willingness to pay.
- ↗ Update asset management plans and the long-term financial plan to reflect adjustments made or actions identified to reduce costs or increase funding.



TIPS FOR GETTING STARTED

Build a shared understanding. Arrange for a meeting between financial and technical personnel to build a shared understanding around relevant topics such as the use of Tangible Capital Asset data reported for PS3150, long-term financial planning for asset replacement, and financial risks.



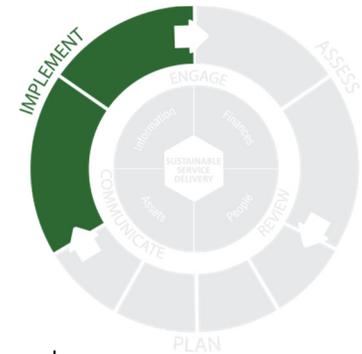
ADDITIONAL RESOURCES

1. **Long-range Financial Planning** | Government Finance Officers Association of BC
2. **Long-term Financial Planning and Asset Management Presentation** | District of North Vancouver
3. **Long-term Financial Plans** | Local Government Association of South Australia
4. **Practice Note 6: Long-term Financial Planning** | Institute of Public Works Engineering Australasia

6.4 Implement

6.4.1 IMPLEMENT ASSET MANAGEMENT PRACTICES

Plans and practices are developed to be implemented. The asset management strategy outlines the corporate asset management objectives and approach, and the asset management plans identify what projects, programs, and practices need to be implemented to meet the asset management objectives. Implementing these practices is the next step in the process of continuous quality improvement.



The implementation of practices will be related to some or all of the core elements: people, assets, information, and finances. The implementation of practices will be incremental and based on available financial and human resources.

Much of the implementation task is related to updating information (e.g. improving asset condition information, improving risk assessments, etc.) and implementing projects identified in asset management plans to manage risk to service delivery.

Why It's Important

Although the necessity of implementing plans may seem obvious, many communities become so focused on developing asset management plans that they consider themselves finished once the plans are done. While the development of the plans is important, it is the implementation of the plans and ongoing asset management practices that are most impactful.

Asset management requires a systematic approach, using an array of information for decision-making. This systematic approach of implementing asset management practices in an organization becomes routine practice, and ensures that the initial investments made to establish the asset inventory are not wasted as the inventory becomes out of date. These practices:

- ↳ Build the capacity of your organization to meet asset management objectives on an ongoing basis.
- ↳ Ensure that quality information is available.
- ↳ Ensure that information is used effectively to make better decisions.
- ↳ Embed asset management into your organization as a way of doing business.

Activities

- ↳ Update the asset inventory by adding new assets, identifying asset renewals, replacements, and decommissioned assets.
- ↳ Update asset replacement costs.
- ↳ Implement risk management plans and projects.
- ↳ Implement asset maintenance, renewal, and replacement projects.
- ↳ Hold regular asset management team meetings to review implementation progress, successes, and challenges.
- ↳ Review and update lifecycle analysis of assets in the asset management plan;
- ↳ Update related corporate plans to reflect asset management information (e.g. utility master plans, the official community plan, etc.).
- ↳ Implement appropriate asset management systems to support data management.
- ↳ Train staff to enhance asset management competencies, skills, and organizational capacity.
- ↳ Develop succession plans.
- ↳ Update and develop job descriptions to align with asset management requirements.

6.4.2 MEASURE AND REPORT

Best practices in progress measurement use high-level, corporate-wide indicators expressed in financial terms as overall indicators of progress. These indicators are tangible and measurable, and can help to highlight the connection between cost and service, and performance trends over time.

Reporting demonstrates measurable progress in implementing the process and achieving sustainable service delivery. Annual and financial reports should include progress against the asset management objectives and outcomes identified in the asset management strategy and asset management plans, including performance on the indicators selected.

Each local government may wish to develop their own set of performance measures and processes for reporting.

Why It's Important

Asset management is a continuous improvement process, and processes are more likely to improve when results are being measured. Setting optimal levels of service requires understanding both the assets and finances needed to sustain service levels over the long-term. Understanding the connection between service and price is fundamental to being able to communicate progress to stakeholders toward achieving service, asset and financial sustainable. Making progress against indicators demonstrates the reduction of infrastructure backlogs and that service levels (and costs) are at a level people are willing to pay for.

Activities

- ↳ Develop or select key indicators for performance measurement (customers, technical and financial).
- ↳ Report on performance against indicators.
- ↳ Publish performance results in community annual report.



ASSET MANAGEMENT BC ROADMAP IN PRACTICE

“The Regional District of Nanaimo is finalizing its integrated asset management strategy and implementation plan. Using the Asset Management BC Roadmap (AM BC Roadmap) as a guide we were able to assess where we are with asset management and where to focus in developing an effective and sustainable asset management process.

The Asset Management BC Roadmap is scalable, non-prescriptive and gives a realistic and understandable view of the asset management components. “Modules of practice”, six in all, capture the key principles. Using these modules we were able to work through our current strengths and weaknesses and then move on to develop our implementation plan. What we now have is baseline information and a tool that allows us to measure progress as we implement asset management practices.

An important aspect of the Asset Management BC Roadmap is that it allows for plans to be developed that reflect each local government's individual needs. It isn't a one solution fits all approach, it gives you the tools to build a process that meets your community infrastructure profile.

The Asset Management BC Roadmap has been invaluable in clearly setting out the practices that our organization needs to effectively understand, manage and make informed decisions about the long-term sustainability of our community infrastructure.”

- Mike Donnelly, Manager of Water & Utility Services



ADDITIONAL RESOURCES

1. [Long Range Financial Planning](#) | Government Finance Officers Association of BC
2. [Financial Sustainability Information Paper #9](#) | Local Government Association (Australia)
3. [Asset Management Roadmap](#) | Asset Management BC
4. [AssetSmart](#) | Asset Management BC
5. [Asset Management Framework](#) | District of North Vancouver
6. [Long-Term Financial Planning – Practice Note 6](#) | Institute of Public Works Engineering Australasia

7.0 Resources & Tools

The following documents and tools have been listed throughout this framework as resources to support the development and implementation of asset management practices. Publicly available presentations, plans, and other documents from BC municipalities have also been listed throughout the framework to provide examples. All of these resources, and more, are also linked on the Asset Management BC website (www.assetmanagementbc.ca).

ASSET MANAGEMENT BC | ASSET MANAGEMENT ROADMAP

Description

A document that guides the reader through the steps of implementing asset management at a basic, intermediate, and advanced level through a modular approach.

This may help you with

- ↳ Understanding the scope of asset management activities
- ↳ Developing asset management plans
- ↳ Implementing asset management practices

ASSET MANAGEMENT BC | ASSET MANAGEMENT ROADMAP CASE STUDIES

Description

A report summarizing the approach and results of four case studies in applying the Asset Management Roadmap.

This may help you with

- ↳ Understanding how to implement the roadmap
- ↳ Identifying how your results compare to other local governments

ASSET MANAGEMENT BC | ASSETSMART SELF-ASSESSMENT TOOL

Description

An assessment tool for use by organizations to gain a comprehensive and high-level snapshot of the state of their asset management practices.

This may help you with

- ↳ Assessing your organization's asset management practices
- ↳ Developing priorities for building or improving asset management practices

ASSET MANAGEMENT BC | A GUIDE TO DEVELOPING A MUNICIPAL ASSET MANAGEMENT POLICY

Description

A draft guide describing the benefits of having an asset management policy, what the policy might include, and a sample asset management policy for reference.

This may help you with

- ↳ Developing asset management policy

LOCAL GOVERNMENT MANAGEMENT ASSOCIATION OF BC - EXCHANGE MAGAZINE FALL 2014 | ASSET MANAGEMENT: FROM AWARENESS TO ACTION

Description

An issue of *Exchange Magazine* dedicated to asset management. It includes accessible articles that describe the asset management journey of a few Canadian local governments and the evolution of asset management.

This may help you with

- ↳ Communicating asset management with non-technical stakeholders
- ↳ Understanding the challenges and successes experienced in other communities

FEDERATION OF CANADIAN MUNICIPALITIES | DEVELOPING LEVELS OF SERVICE

Description

Developed as a best practice to accompany the National Guide to Sustainable Infrastructure, this guide describes why levels of service need to be defined and when, and how to do it. The appendix includes some case studies describing application.

This may help you with

- ↳ Understanding the need to define levels of service
- ↳ Defining levels of service

FEDERATION OF CANADIAN MUNICIPALITIES, CANADIAN CONSTRUCTION ASSOCIATION, CANADIAN PUBLIC WORKS ASSOCIATION, CANADIAN SOCIETY OF CIVIL ENGINEERS | ASSET MANAGEMENT PRIMER – CANADIAN INFRASTRUCTURE REPORT CARD

Description

An accompanying document to the Canadian Infrastructure Report Card, this primer describes asset management and makes a set of recommendations for implementing asset management. The primer also includes an asset management plan outline.

This may help you with

- ↳ Developing asset management plans

- ↳ Understanding key components of asset management

INSTITUTE OF ASSET MANAGEMENT AND BRITISH STANDARDS INSTITUTE | PUBLICLY AVAILABLE SPECIFICATION 55: ASSET MANAGEMENT

Description

A guide that describes the requirements, structure, and development of an organizational asset management system for businesses that are intensive in physical assets (www.iam.org).

This may help you with

- ↳ Moving towards the achievement of advanced asset management practices

INFRAGUIDE | DECISION MAKING AND INVESTMENT PLANNING: MANAGING INFRASTRUCTURE ASSETS

Description

A series of 'best practice' documents for public works and asset management (www.fcm.ca).

This may help you with

- ↳ Developing an asset management plan

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO) | INTERNATIONAL STANDARD 55000, 55001 AND 55002: ASSET MANAGEMENT

Description

An international standard for asset intensive businesses that provides an overview of the benefits, elements, requirements, and design of an asset management system (www.iam.org).

This may help you with

- ↳ Understanding asset management strategy
- ↳ Understanding the role of leadership in asset management
- ↳ Understanding the importance of a communication plan and what should be included

INSTITUTE OF PUBLIC WORKS ENGINEERING OF AUSTRALIA | INTERNATIONAL INFRASTRUCTURE MANAGEMENT MANUAL

Description

A definitive manual that outlines what asset management is and provides guidelines for how to implement asset management, techniques that can be used, and information management (www.ipwea.org).

This may help you with

- ↳ Deepening understanding of asset management concepts through a description of implementation and several case studies

INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA | NAMS.PLUS**Description**

A subscription based service that includes a set of templates and modelling tools to assist organizations in writing and updating asset management plans, based on the Infrastructure Management Manual.

This may help you with

- ↳ Assessing your organization's asset management practices
- ↳ Developing asset management policy and strategy
- ↳ Developing asset management plans
- ↳ Develop long-term maintenance and capital works programs
- ↳ Developing multi-disciplinary teams

INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA | CONDITION ASSESSMENT AND ASSET PERFORMANCE GUIDELINES**Description**

Generic principles for condition assessment and asset performance, applicable to all asset types.

This may help you with

- ↳ Planning for condition assessments or setting up a condition assessment program

INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA | PRACTICE NOTE 6: LONG-TERM FINANCIAL PLANNING**Description**

A document that provides guidance for the preparation of a long-term financial plan.

This may help you with

- ↳ Developing a long-term financial plan.

INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA | PRACTICE NOTE 8: LEVEL OF SERVICE AND COMMUNITY ENGAGEMENT

Description

A guide to support local governments in defining affordable and appropriate levels of service.

This may help you with

- ↪ Community engagement with respect to services
- ↪ Developing levels of service
- ↪ Identifying tradeoffs between cost and level of service

LOCAL GOVERNMENT ASSOCIATION OF SOUTH AUSTRALIA FINANCIAL | FINANCIAL SUSTAINABILITY INFORMATION PAPER #9

Description

A paper that describes the process of assessing financial sustainability, including a set of ready-to-use best practice indicators.

This may help you with

- ↪ Assessing your organization's financial sustainability

LOCAL GOVERNMENT ASSOCIATION OF SOUTH AUSTRALIA | LONG-TERM FINANCIAL PLANS

Description

An information paper, within a series of papers about financial sustainability, describing the purpose and contents of a long-term financial plan.

This may help you with

- ↪ Developing a long-term financial plan
- ↪ Linking your long-term financial plan to asset management

MASTER MUNICIPAL CONSTRUCTION DOCUMENTS ASSOCIATION | ASSET MANAGEMENT DATA REGISTER PROJECT

Description

The project includes an Infrastructure Data Scheme (IDS) that provides conventions for use in an asset register, and an Infrastructure Data Management Utility (IDMU) database that can be used by local governments to create and manage an asset inventory. The MMCD website includes several videos and other resources.

This may help you with

- ↪ Developing your asset inventory
- ↪ Reporting the status of your inventory

NATIONAL ROUND TABLE ON SUSTAINABLE INFRASTRUCTURE | AN ASSET MANAGEMENT GOVERNANCE FRAMEWORK FOR CANADA

Description

A document outlining the role of various stakeholders in improving and enhancing the service by municipalities by promoting better management techniques.

This may help you with

- ↳ Identifying asset management stakeholders

MICKELSON CONSULTING INC. | AM COMMUNICATIONS STRATEGY

Description

A presentation outlining key messages for communication and strategies for effective communication.

This may help you with

- ↳ Internal and external asset management communication and engagement

SUSTAINABLE CITIES INTERNATIONAL | INFRASTRUCTURE COSTS AND URBAN GROWTH MANAGEMENT

Description

A guide for understanding the full costs of infrastructure and urban growth scenarios.

This may help you with

- ↳ Undertaking cost of infrastructure studies