Development of Asset Management Policy, Governance and Capacity

Participant Workbook

About FCM

The Federation of Canadian Municipalities (FCM) is the national voice of municipal government. In leading the municipal movement, FCM works to align federal and local priorities, recognizing that strong hometowns make for a strong Canada.

About Alberta Municipalities

Founded in 1905, Alberta Municipalities represents cities, towns, villages, summer villages, and specialized municipalities. AUMA works with federal and provincial governments and business and community stakeholders on a broad range of issues to strengthen the economic, social, cultural, and environmental vitality of its member municipalities.

About RMA

The Rural Municipalities of Alberta (RMA) is an independent association representing Alberta's 69 counties and municipal districts. Since 1909, the RMA has helped rural municipalities achieve strong, effective local government.

About IAMA

Infrastructure Asset Management Alberta (IAMA) represents the greater community of any person, organization or agency engaged in or has an interest in infrastructure asset management.

The 'community' is supported by the IAMA Working Group which is a voluntary group of representatives from associations, local governments, agencies, private industry and/or first nations brought together to recognize and integrate the administrative, technical, operational, financial, and planning aspects of asset management.

Table of Contents Workbook One

Table of Contents Workbook Two

Table of Contents Workbook Three

Welcome

Welcome to Development of Asset Management Policy, Governance and Capacity. This course is designed to help you, as municipal staff, complete the asset management process for your municipality. It will include a a series of three workshops (two one-day workshops, with a two-day workshop in between), with guided support in between each workshop. You will receive additional content at each workshop that will build on your knowledge and assignments that will support the development of asset management capacity in your organization.

This course is intended to build on your understanding of asset management and to help your municipality develop an asset management policy, strategy, and internal asset management team. As you progress through the course, you will see that the Federation of Canadian Municipalities (FCM) Municipal Asset Management Program (MAMP) Asset Management Readiness Scale (hereafter referred to as the AMRS) is a great resource to support municipalities in improving their asset management practice. After this course, not all municipalities will be at the same level on the AMRS; however, all participants should take away the skills and knowledge required to progress on the scale.

Some participants may already be familiar with asset management, while others may be new to the subject. This course will allow all participants to build their knowledge and skills and share their experiences with their colleagues and peers. The agenda includes opportunities for group discussions and exercises, as well as assignments that can be completed after the course to help you build your municipality's asset management capacity.

Your participation in the course is invaluable to you and your colleagues. Over the next few months, you will share your thoughts, insights, and experiences. We will also be asking for your feedback through evaluations at each workshop. Your responses will help us continually improve this material for future deliveries.

Using the Workbook

The following icons will help you to navigate the workbook and presentation and workbook.

Learning Goal

Specific learning outcome to be achieved.

Try it out

Actions, questions, or perspectives to put into practice back at work.

Activity

Individual or group exercises designed to put learning into practice.

Resources

Additional reference materials and tools related to the topic. Web addresses for the resources can be found at the back of the workbook.

Glossary

Definitions of words and phrases used in the course material.

Reflection

A place to write your own reflections and insights on how you might apply a concept or idea to your own municipal circumstances.

Did You Know?

Interesting facts and insights on asset management.

Module 1—Define Asset Management

After completing this module, participants will achieve the following learning goals:

- Define asset management, service, risk and cost
- Articulate the benefit of asset management and the role it plays in sustainable service delivery
- Describe the tools used in an asset management process and what they are used for
- Describe the implementation of asset management

LEARNING GOAL: Define asset management, service, risk and cost

Municipalities in Alberta are empowered to provide a range of services to their communities through provincial legislation, specifically the Municipal Government Act (MGA). A major component of service provision is taking care of the assets that make those services possible. An asset is a physical component of a system that enables a service or services to be provided. For example, pipes are the assets that deliver water service to homes, roads and traffic lights are the assets that make transportation possible, and recreation centres are assets that allow recreation services to be provided to the community.

Municipalities have been managing assets for a long time. However, asset management is more than just managing assets — it is a systematic, organized, and integrated approach.

Activity

1. As a group, develop a 3-minute presentation on the definition and benefits of asset management. Make the benefits as specific to your municipalities as possible. Include something unique in your presentation to make it interesting. Ideas include: an anecdote from your municipality, "top 5 myths about asset management", etc.

Asset management is a way of thinking about how assets are used to deliver services to a community and its citizens. Asset management helps a community make sure that its physical assets can deliver the levels of service that councils have committed to. Asset management allows a community to examine the services it delivers, understand and manage the risks it faces, and take a holistic view of its assets. Asset management is about making sure communities are sustainable into the future.

"The process of making decisions about the use and care of infrastructure to deliver services in a way that considers current and future needs, manages risks and opportunities and makes the best use of resources"
Handbook & Toolkit for Alberta Municipalities

Asset management is about using systems and processes to balance **cost, risk,** and **level of service** to make informed **decisions** that make sense for your community in the long run. Asset management is not just for large communities. All municipalities make decisions about their assets. The systems and processes don't need to be extensively detailed or expensive; you can start with what you have. Your municipality is likely already using processes for things like planning and budgeting. Asset management is about evaluating and updating those processes to ensure they systematically consider the right kind of information and take a long-term perspective.

WHAT ASSET MANAGEMENT IS:

- a process,
- a means to an end,
- practices for good decisions,
- an ongoing process.

WHAT ASSET MANAGEMENT IS NOT:
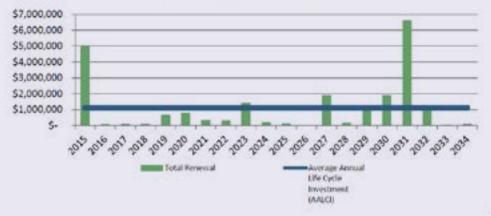
- a single project or plan,
- an end in itself,
- a software program

Asset management means focusing on things like:

- The purpose of your organization and how assets support community goals
- Value, purpose, and long-term outcomes of assets
- Managing risks and understanding the context of risks
- Holistic approaches to budgeting
- Collaboration across municipal service areas and with service partners

When many people think about asset management, they think about developing inventories of assets, doing condition assessments, and undertaking maintenance management tasks. They think this is the job of someone in public works and that they don't need to be involved. Asset management does involve those tasks, but more importantly, it is about connecting asset lifecycle activities to the bigger picture. It requires the integration of information from planning, engineering, public works, and finance.

Renewal investment is the investment needed to replace or renew existing assets that have reached the end of their service life. For example, if a pipe was constructed in 1940 and is expected to have a useful life of 80 years, the full cost of replacing that pipe would be shown in 2020. The total cost shown for each year is the total cost of replacing all assets in a community that are at the end of their service life. It is common to see spikes because often significant infrastructure investments are made at the same time and so the infrastructure reaches the end of its service life at the same time.

Graphic from Building Community Resilience Through Asset Management: A Handbook and Toolkit for Alberta Municipalities.

Average Annual Life Cycle Investment (AALCI) is the average annual investment needed to renew or replace assets at the end of their service life. It's the amount that a municipality would save each year in reserves if the strategy was to pay for the replacement of the assets in full at the end of the assets lives. For example, if a segment of pipe cost $80,000 and the pipe is expected to last 80 years, you would theoretically save $1,000 per year for the life of the pipe so you could pay to replace it at the end of 80 years. The total AALCI for a municipality is the sum of the average for all infrastructure. Since it is very uncommon for municipalities to fully fund replacement of infrastructure from reserves, this is more of a theoretical value that is used for communication and planning purposes only.

This is a common approach to considering the amount that will need to be invested in assets over time. The sample chart above shows the renewal investment and AALCI for a town's asset.

Group Discussion

Do you have this kind of information in your community?

How would you respond to this if you received this information about your community's infrastructure?

Key discussion point

Asset management is a scalable process of ongoing continuous improvement. The purpose of asset management is not to eliminate your deficit, the purpose is to manage it by understanding and evaluating trade-offs between service, risk, and cost.

Source: Alberta Handbook & Toolkit

There are lots of ways of approaching asset management – but at even the most basic level, asset management is always about informed decisions with an understanding of service, risk, and cost.

The difference between an entry level approach to asset management and a mature, in-depth approach is not what content is considered, but increased data accuracy, levels of analysis, integration, documentation, and formalization of processes.

Try it out:

Different people often hold different perceptions of what asset management means based on their role and responsibilities. Ask your coworkers what they think asset management means, and how it could help your community.

Service

Sustainable service delivery is at the centre of asset management. Having asset management processes in place will help you to be clear on what services you're providing, at what level, and how the service needs may change over time. Constituents are the recipients of services and will therefore have an important role in determining what services will be delivered and to what level. It is important that constituents are engaged somehow in these decisions – either directly or through their elected officials. However, decisions about service delivery should always be made in the context of the cost of delivering services and the associated risks.

The **level of service** is a measure of the quality, quantity, and/or reliability of a service from the perspective of residents, businesses, and customers in the community.

Understanding service means having a consistent understanding of:

- The types of services you provide;
- The groups of residents, institutions and businesses you provide them to;
- The level of service that is currently delivered (performance); and
- The level of service that you're aiming to provide (target)

Levels of service ultimately link back to what customers experience and care about. Municipalities can practice thinking critically about level of service and understanding service through a community lens. A strong understanding of level of service needs to be clear and consistent among council, staff, and the public.

Activity

1. What are the services you provide in your community?

2. Why do you provide those services?

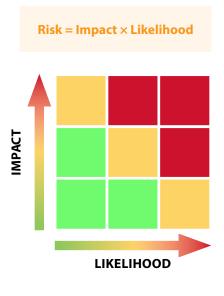3. Who are your service delivery partners – currently and in the future?

4. What mechanisms do you use to define and communicate the level of service?

5. Where is there some lack of clarity about the level of service the community provides or is aiming to provide?

Risk

Risks are events or occurrences that will have undesired impacts on services. When assessing risk, it is important to consider the impact of the risk and the likelihood of occurrence.

Understanding risks and where they are is important to managing assets effectively. Risks cannot be entirely eliminated, and sometimes mitigating risks can be expensive. As an organization, you may decide that some risks should be tolerated. Tolerating risks is perfectly acceptable, as long as it is an informed decision to tolerate risk.

Asset risk describes the risk of an asset failing to perform the way you need it to deliver a service. For example, a pipe bursting, roadway washing out, or lagoon reaching capacity all describe types of asset risks.

Strategic risk describes a change that would affect your ability to achieve municipal objectives. For example, the public works manager retiring without a transition plan in place, a declining revenue base, or changing regulations are strategic risks.

Risk = Impact × Likelihood

IMPACT

LIKELIHOOD

Managing risk is not always as straightforward as eliminating risk, and every community and asset has a different level of **risk tolerance**. In some cases, a community can mitigate risks but not eliminate them altogether. For example, a community that faces drought conditions each summer can enact water conservation measures and educate the public, but may not be able to prevent the need to enforce water restrictions. In other cases, the level of risk may be manageable, but a municipality may choose to tolerate the risk because other priorities are more urgent. For example, a side road in poor condition may be a nuisance for the small portion of the population that uses it, however, investment in repairing the road may be delayed to pay for the cost of repairing a burst pipe.

Asset management involves the consideration of a community's risk tolerance: the level of risk the municipality can reasonably handle. Attempting to reduce risk as much as possible is prohibitively expensive, and unnecessary. Municipalities and their constituents understand that things aren't going to be perfect 100% of the time – but the important things need to be pretty good most of the time. Your risk tolerance will be informed not just by the magnitude of the risk (the consequence it will have and the likelihood that it will happen) but also the cost of managing or reducing the risk. This is an example of a trade-off between risk and cost.

Risk management refers to the process of identifying and assessing risks, identifying and evaluating actions that can be taken to reduce risk, and implementing the appropriate actions. Risk management is an iterative process, meaning that the desired result is achieved through repeated efforts, rather than through a single action.

Climate Change in Alberta is often experienced through changes in precipitation patterns, temperatures, and the frequency and intensity of extreme events, all of which threaten a community's ability to deliver sustainable services.

Climate change is an example of both asset and strategic risk. It is an asset risk because changes to temperature and weather patterns may impact the ability of your infrastructure to perform as it was intended to; for example, increased rainfall may overwhelm your stormwater system because it was built for a different capacity and range of events. Climate change is also a strategic risk because it changes the assumptions under which services are delivered, which may force your community to draw resources away from some goals towards others. For example, if your community's water source is becoming compromised by hotter, drier conditions, resources may need to be shifted to find another water source or better secure the existing one.

Sustainable service delivery requires continuously balancing trade-offs between service, risk, and cost. Climate change introduces impacts that may:

- Amplify the risk of asset failure

- Reduce the useful life of the asset

- Reduce the level of service

- Increase the costs of managing risk

Incorporating climate change factors into the asset management process can help assess the vulnerability of assets and provide the opportunity to introduce additional considerations into capital planning and operations and maintenance processes to mitigate the potential impacts of climate change on service delivery.

The Municipal Climate Change Action Centre (MCCAC) is a collaborative partnership among Alberta Municipalities, RMA, and the Government of Alberta. It delivers funding, technical assistance, and education to municipalities and a variety of organizations to reduce the impacts of climate change and enhance climate resilience. https://mccac.ca/

Activity

1. How is risk identification and risk management identified in your capital plan? How is risk tolerance set in your community? Is there consistent understanding of which risks are acceptable risks, and which are not?

2. As you think about risks in your various assets, where do you think you are the most vulnerable to disruptions in service delivery resulting from the adverse impacts of climate change?

Cost

In asset management, costs include the financial and human resources required throughout the lifecycle of the asset. We intuitively understand that there is a connection between cost, level of service, and risk, but we often limit our considerations to the immediate situation. When considering cost in trade-offs, it's important to think about the following considerations:

- Replacement costs of current assets and the timeline for these costs

- Capital costs of new assets and timeline for these costs

- Expected operating and maintenance (O&M) costs for current and new assets

- Actual operating and maintenance costs for current assets

- Relationship between capital cost and O&M costs (full lifecycle cost)

- Past and projected trends in O&M costs over time

- Revenue sources for future capital and operational costs

Activity

1. How does your capital planning process evaluate trade-offs between service, cost, and risk? What is working well in this respect, and what could be improved?

2. How are revenue sources evolving in your community, and how might that impact service sustainability in the future?

There is no 'right answer' when it comes to evaluating trade-offs. What is important is that there is information and a process available to consider the trade-offs effectively for today and the future.

LEARNING GOAL: Articulate the benefit of asset management and the role it plays in sustainable service delivery

Benefits of Asset Management

Asset management helps municipalities deliver services effectively, efficiently, and in a way that protects the long-term interests of the community. It helps you to deliver the services that are important to your community, get the biggest bang for your buck from your assets, and set your community up for success.

Align the organization with things that matter most.

At its core, asset management is about service delivery. Effective service delivery requires that priorities are set and decisions are made through a lens of what matters to constituents in the short and long term. It also helps reduce duplicate work and unnecessary interruption to constituents' access to certain services. For example, asset management would help a community prioritize projects that align with the community's vision and priorities outlined in its strategic plan, or help prioritize a water main replacement based on risk to service outages and coordinate such work with road projects to minimize traffic disruption and lifecycle costs identified in the community's transportation master plan. Asset management should integrate and align with other municipal plans.

Defensibly prioritize projects and allocate resources.

Asset management helps communities decide what infrastructure needs to be replaced, when, and how much needs to be saved for infrastructure renewal. Taking a systematic approach supports efficient use of resources and equips a community with strong evidence that can be used to communicate why decisions are made, particularly when the need for investments is unclear or controversial to the public. For example, asset management can be used to help a municipality identify the need for water main replacement throughout the community, and plan for these costs. It can also be used to evaluate competing priorities, such as a town hall upgrade or the development of a recreation trail.

Systematically manage risks to service delivery.

Asset management supports the management of both **strategic risks** and **asset risks** – leading to sustainable service delivery. For example, many communities in Alberta face risks related to their roads. There are risks that specific roads will fail because they are in poor condition (asset risk) and there is an overall concern that deteriorating road conditions will lead to complaints from the public and potential safety issues (strategic risk). There isn't enough money to fix all the roads, especially given all the other financial demands on the community (also a strategic risk). The level of service for roads is decreasing and there are weight restrictions on some roads with no plans to correct them (risk to service sustainability). Asset management helps a community identify overall funding needs for sustainable service, prioritize where and when money should be spent repairing roads to appropriately manage risks, identify how much should be saved for long-term maintenance, and understand how to effectively respond to public complaints.

Demonstrate accountability to community.

Asset management establishes a clear and systematic approach to making decisions, prioritizing resources, and planning for the future, which in turn demonstrates municipal accountability. For example, asset management will help a municipality explain to a small (but vocal) group.

Position your community to take advantage of provincial or federal government incentives.

There may also be opportunities to align with government incentives for asset management. Provincial and federal governments are increasingly looking for indicators that a local government is practicing asset management in grant applications. The 2014-2024 Gas Tax Agreement between Canada and Alberta included requirements that Alberta develop an approach to asset management. In 2016, the federal government approved Alberta's approach, which includes the following components:

- Publishing an inventory of current asset management tools and resources
- Supporting the development of new tools that support asset management
- Enhancing existing advisory services and training opportunities
- Assessing existing gaps and expanding tools and resources where required
- Reviewing corporate planning requirements as part of the MGA review

ASSET MANAGEMENT IN OTHER PROVINCES

Each province has committed to making progress in asset management through their respective Gas Tax Agreements with Canada, and each province is choosing their own approach. For example, in British Columbia, the emphasis is on making progress on achieving outcomes defined in the BC Asset Management Framework. In Ontario, there are requirements to have specific asset management plans that demonstrate their infrastructure funding needs. The specific provincial requirements may change over time as each province learns what is effective in their context.

Beyond providing a networked community of peers working in Asset Management, Infrastructure Asset Management Alberta (IAMA) hosts three educational workshops per year to advance the practice of Asset Management in our municipalities. Their website, https://assetmanagementab.ca/, provides resources from previous workshops that can provide a valuable source of information on a variety of different topics of relevance to communities of all sizes.

IAMA also includes a membership component. Members receive access to IAMA workshops at a reduced price, access to member-only materials, and the opportunity to join a dedicated and growing community of practitioners dedicated to growing asset management across Alberta. Membership in IAMA is a great way to build on and expand the collaborative relationships formed in this cohort.

Activity

1. What are the most important objectives for your community to achieve from asset management?

2. In the next one year?

3. In the next five years?

4. Into the future?

LEARNING GOAL: Describe tools used in an asset management process and what they are used for

Asset management isn't just about planning and policy documents. However, as part of a robust process, these can support decision-making by documenting community goals related to assets and providing a roadmap for how to achieve these goals. We're going to spend some time reviewing the different tools available to guide asset management and how these are used. It is not necessary to have all of these documents to practice asset management. You can start with where you are and build your practice, for example, using an asset management lens in decision-making, building an inventory, and starting the asset management planning process. For reference, examples of policies and strategies can be found in the Resources section.

Asset Management Policy

An asset management policy is used as the connection between council's strategic guidance and staff's operational processes. Asset management as a practice touches on many parts of a municipality's operations, and so there are various ways a municipality may choose to adopt policy related to asset management. A municipality may choose to develop a standalone asset management policy, or may choose to develop or update a series of policies related to areas like finances, human resources, training, etc. to incorporate an asset management lens.

The specific way that policies are organized is not important (whether asset management is covered in one policy, or many policies) – as long as it makes sense for your municipality and the policies are followed. The content and purpose of the policies are important though. Policies related to asset management should accomplish the following:

- Outline an organization's commitment and mandated requirements for asset management

- Link to the organization's strategic objectives

- Be shaped by the organization's values and priorities, as well as community objectives

- Outline principles to guide decision-making about assets (for example, incorporate lifecycle costing, adopt a risk based approach to setting priorities, etc.)

- Outline the corporate approach to funding and financing asset acquisition, renewal, and operations and maintenance

Council's role is to provide the direction and strategic guidance that is captured in the policy.

Asset Management Strategy

As part of developing and maintaining asset management practices, council may be asked to endorse an asset management strategy. The asset management strategy is primarily for staff use, but council may provide input on the document. Council's endorsement is an important signal that the implementation of the strategy is important to the municipality. Implementing the strategy may require some re-alignment of staff and financial resources, so it is important that council knows about the asset management strategy being adopted. The asset management strategy should accomplish the following:

- Outline the framework and approach for implementing the asset management policy/policies

- Serve as the conceptual structure for the asset management system (series of practices and processes developed by the organization)

- Define the key components of the asset management system and interactions with other organizational processes (such as capital planning, budgeting, financial planning, etc.)

- Identify objectives (specific, measurable outcomes required of assets and asset management) and reporting requirements

- Provide an overview of current corporate assets, services, risks, costs, and funding

- State status of corporate asset management practices

- Identify goals (the general intent of your strategy, what you want to achieve at a high level) and timelines for the goals

- Outline the approach that you will take to improve asset management practices

- Outline relationships between other corporate initiatives or plans (such as the Municipal Development Plan, the Integrated Community Sustainability Plan, the Intermunicipal Collaboration Framework, etc.)

Asset Management Plan

An asset management plan supports the implementation of the asset management strategy. An organization may have one asset management plan, or it may have one for each grouping of assets. It is unlikely that council will be involved in the development of the asset management plan – council's direction should be provided through the policy and strategy. However, it is important for council to know whether or not the municipality has an asset management plan(s), and how these plans have been used to support processes like capital planning and budgeting. Asset management plans may also be useful in providing information about cost, service, and risk to support council in evaluating trade-offs in decision-making. Staff may provide updates on the progress of the asset management plan.

Asset management plans will do the following:

- Outline specifically how asset management practices and processes will create, maintain, and renew infrastructure and other assets

- Provide comprehensive information about assets, their condition, and how they are performing

- Identify the current level of service performance and desired level of service

- Categorize asset risks and strategic risks

- Define capital and operational projects required to deliver service and mitigate risks

- Define current and projected costs and funding

- Provide a timeline for implementation

- Articulate the consequences of not following the plan

Software

For some people, when they think about asset management, they immediately think about databases, inventory, and the never-ending quest for good data. Data and information are important—good data ensures that your decisions are based on a solid understanding of your assets. However, it is important to remember that data is just one component of asset management, and data collection is an ongoing process that you can start and improve over time.

Tools are important, but asset management software is best used when there are good processes in place already. Before investing in new software, figure out what your organization needs by reviewing what data you have and what you need to collect and keep track of moving forward. For more considerations in selecting a software, see FCM's questions to ask before your municipality considers asset management software, which is included in the resources section of this binder.

This section will review various aspects of data and information involved in asset management. It is not meant to provide a comprehensive review of how to collect, store, and use data – that will be up to staff in your organization.

Collecting data is often a major hurdle to asset management, but it can start simply and does not have to be overwhelming.

Activity

1. Look through example policies and strategies provided in the Appendix section at the end of your binder. Evaluate what you like and don't like about each, and why

LEARNING GOAL: Describe implementation of asset management

One of the most common questions about implementing asset management is where to begin. Implementing asset management can start with whatever step makes most sense for your organization. Understanding what is driving the desire to implement asset management and what you want to achieve can be helpful in this decision. However, if you're still not sure where that might be, a potential pathway has been outlined below. This pathway shows you where to start, and is also a roadmap for continuous improvement.

Regardless of where you start, if the data, plans, policies, software, and tools that you create don't impact the decisions made about asset construction, operation, maintenance, or replacement, then you are not actually implementing asset management. Just developing a plan or policy alone is not implementing asset management.

Implementation

1. **Identify a champion and build a team**

   Building a team and the support network you need (internal and external). The team should include someone who knows about finance, operations, planning, and engineering. The champion needs to be able to bring people together and keep it going.

2. **Assess assets**

   Bring together available information on your assets to get a high-level snapshot of what you own, the level of service you're delivering, asset risks, and costs. Compile it into a central inventory or location. Use the information you have as a start. You can improve it later.

3. **Assess asset management practices**

   As a team (and maybe even more broadly) assess your current practices related to understanding services, risks, and costs, and making decisions. You might already be doing asset management in certain areas, but calling it something else. AssetSMART is an assessment tool that can be used for this assessment.

The minimum factors for success are:

A champion

You need someone who can drive asset management forward. The department or title of this person doesn't matter, but they need to be good at bringing people together.

A team

The champion will be supported by a cross departmental team. At a minimum, the team should include someone from finance, public works, engineering, and planning.

Support from management and council

Since asset management is ultimately about decision making, it is very difficult to be successful in implementing asset management without support from management and council. You might not have this support from the very beginning, as some up-front work might be needed to frame the issue and build buy-in. You shouldn't invest much time or money in developing expensive plans or collecting data without senior support.

4. Identify priorities for improvement

    Based on your assessment of assets and asset management practices, select priorities for improvement. These might be capital or operational projects to mitigate risk or increase service, or they might be initiatives for improving understanding of service, risk, or costs and funding.

5. Implement and monitor

    Implement what you've planned to address your top priorities. This might include capital projects, conducting maintenance, updating or maintaining data, or developing policies, strategies, or plans.

Ongoing decision making

Alignment with regional service delivery

Many communities have assets that also contribute to regional service delivery – for example, some communities own the sanitary sewer collection in town that connects to a regional treatment facility that services several communities. When making decisions about these shared assets, it is important to think about the impacts to the decisions about the individual municipality's assets, and vice versa.

For example, if some of the communities that connect to the regional wastewater treatment facility started to experience increases in infiltration and inflow to their collection system during rainfall events, the regional facility's ability to handle the increased capacity demands would be reduced. This could eventually trigger the need for a facility expansion. Since that facility is a shared asset, the risk and cost associated with changing the service would need to be shared by all parties. Alternatively, the municipalities that are experiencing the increases in infiltration and inflow could investigate ways to improve their collection system to reduce infiltration and inflow contributions to the regional system. Both of these approaches are ways to address the challenge of increased infiltration and inflow, and should be evaluated with an asset management mindset on the scale of the individual municipality as well as with service delivery partners.

Communication for good decision making

To realize all the efforts put into developing your asset management team and tools, it is critical to be able to communicate information in a way that they understand, so that they can use what you prepare in their decision-making. Your council may not have the same background in infrastructure design and management that you do, so you need to be able to communicate with them about assets and asset management in a way that relates back to the services being provided to the public. You can help your council in many ways, such as:

> **ENGAGING COUNCIL IN ASSET MANAGEMENT**
>
> "Council has the final say in major decisions about service, risk, and cost – and therefore it is critical that council is informed and engaged on an ongoing basis about asset management."
>
> *Alberta Handbook & Toolkit, pg. 23*

- Raise council's awareness of asset management. Educate them on what you are learning in this course as well as others you may have taken;

- Hold briefing sessions with your council to share general information on asset management and engage them in discussions about the state of the community's services and assets and how that translates to service delivery to the public;

- Encourage your council to consider level of service and risk when making decisions on planning, service, and financial matters. Continue to link levels of service to cost, ensuring that they fully appreciate that higher service increases cost, and vice versa;

- Highlight the links between council's strategic priorities and asset management;

- Discuss the needs of the organization to start implementing an asset management policy and asset management strategy. Ensure that they are aware of the need for a cross-functional team: although this may require resources, it will ultimately lead to better and more sustainable outcomes;

- Engage your council in a discussion over the significant risks that face your community, and what you are doing to manage them. Ensure that they are aware of the role they play in risk management; and

- Report annually on the state of your assets: ensure council knows their condition and what long-term investment may be required; and

- Celebrate successes in asset management with your council, including milestones met, costs saved by extending asset lifecycles, or processes that were made easier due to progress in asset management.

Try it out:

Include an update on your attendance at this course in your next council meeting, including the specific benefits that your community will see out of improving asset management. Ask your council about how they think asset management could help them in their role as decision-makers.

Discussion Point

Your asset management team may not be limited to your municipality. By thinking beyond our local areas, we are able to collaborate with our neighbours to achieve greater economies of scale and better service delivery. There are many services that can be delivered across municipalities or regions, such as water, sewer, and solid waste. Municipalities can share the costs and risks associated to their assets, while delivering a more consistent level of service throughout the region.

Asset management systems can help you and your partners in service delivery identify where there are services that could be better shared and to work together to make the most efficient use of your pooled resources.

Partnering with your neighbors to create intermunicipal agreements promotes regional cooperation, can reduce the costs and risks of a service, and increases the level of service.
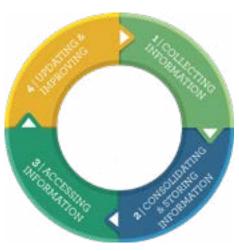
Reflection:

Which services are you currently delivering regionally? How are decisions about that service made? Do you see opportunities to incorporate asset management principles into these decisions?

Information Management

Appropriately accurate information is an important support to good decision-making. To support those decisions, information must be collected, consolidated, organized, and accessed by those that need it – it's all about getting the right information to the right people, at the right time.

1. Collecting Information

Asset management practices involve collecting and consolidating information about the municipality's assets and services so that it's available to inform decision-making. This information doesn't need to be perfectly accurate – starting with even anecdotal information or estimates from knowledgeable staff provides value to decision-making.

Source: Alberta Handbook & Toolkit

The level of detail will depend on your needs and resources. For example, if you are trying to develop a long-term projection of what your asset replacement costs might be, assets can be grouped into large and general categories – there is no need to get into specific details because things will change over time and your aim is only to develop an estimate to help you plan. However, if you're trying to decide which water mains should be replaced over the next two years, you will need more specific and accurate detail about size, location, fittings, connections, and condition.

You may have high levels of detail for some types of assets, and low levels of detail for other types of assets – it all depends on what is needed to reasonably inform decisions.

2. Consolidation and organizing Information

Once information is collected, it needs to be consolidated so that it can provide a snapshot of the state of the organization's assets and is accessible for decision-making. The information should be compiled and organized in a way that is appropriate to the municipality. Specialized software may be preferred, but basic Geographic Information System (GIS) information with an Excel inventory can be good enough for many small communities, and a great place to start for some larger communities.

3. Storing and Accessing Information

Staff should know what information is available, how accurate it is, and what limitations there are to the information. When information is shared or accessed across departments, there should be effective communication about information needs.

4. Updating and Improving Information

Information will need to be updated as circumstances change. Regular updates ensure that information remains usable. Again, council's role is not to update or improve information; council supports staff and provides the resources they need for updating and improving information, e.g., through budgeting for resources to support asset management practices.

Information doesn't need to be completely accurate, it needs to be appropriately accurate. What is appropriate depends on the nature of the decisions it will be informing. High stakes decisions require higher accuracy information. For example, having the accurate location of water main valves is important because valves need to be accessed quickly in the event of a main break. But having the precise location of every park bench in the city is less important; it's likely sufficient to know the number of benches in each park.

This is a process of continuous improvement – information doesn't need to be perfect from day one.

Activity

1. What do you envision implementation of AM will look like at your organization?

2. What are some ways you think you might be able to measure implementation of AM?

5. Opportunities to use existing data

"There is a perception that asset management requires a lot of detailed data about all of your assets – but this information can be time consuming and costly to collect. Just like asset management, information management is a process of continuous improvement. It's best to start by pulling together all of the data and information you already have to see what it tells you about your services, risks, and costs, and then to prioritize improving information where it's going to make the biggest improvement to your decision-making."

Alberta Handbook and Toolkit, pg. 19

Start where you are! Assessing the data you have to work with today is part of assessing your current state of asset management. Information will need to be updated as circumstances change, Regular updates ensure that information remains usable.

In this course, we will not be getting into the specifics about developing your asset inventory. If you would like to learn more, refer to the *Alberta Handbook and Toolkit, pg. 23*.

Module 2 – Define human and financial resources required for asset management

> **After completing the module, participants will achieve the following learning goals:**
>
> - Describe the roles and responsibilities of stakeholders in asset management
> - Describe the attributes of a successful asset management team
> - Estimate Financial Resources Required for AM

LEARNING GOAL: Describe the roles and responsibilities of stakeholders in asset management

Asset management is collaborative in nature and there will be many different stakeholders that play a role in driving the AM system.

Council	• Champions asset management in the community.
	• Provides leadership through setting direction and relevant policies.
	• Acts as a steward of community services.
	• Supports building community resilience.
	• Considers asset management information and mindset in day-to-day decision-making.
	• Allocates resources towards asset management through budgeting.
CAO	• Employee of, and accountable to, council.
	• Responsible for working with administration to implement council direction.
	• Directs and supports staff in developing appropriate asset management processes and systems and shares information with council on asset management progress.
Staff	• Develops and implements asset management practices.
	• May be involved throughout the asset management process, including background research, data collection and management, community engagement, risk analysis, level of service reviews, capital planning, and monitoring of practices.
	• Accountable to the CAO, not council.

Community constituents (including residents, businesses, and institutions)	• Receive services. • Pay rates and taxes. • Are the "why" of service delivery. • When community members are unhappy, the elected official may be their first point of contact. Information and accountability are important to the relationship between the elected official and community members. Asset management helps to provide this information and demonstrate accountability.
Partners (such as other municipalities, other levels of government, or private service providers such as EPCOR Utilities)	• May work with the municipality to deliver a service. In this case, the municipality will still need to steward sustainable service delivery. • Partnerships may be used to deliver services to the public, or even to achieve asset management objectives, such as an up-to-date database of asset information. • An Intermunicipal Collaboration Framework may identify opportunities and strategies for partnership among municipalities. • In cases where partnerships relate to infrastructure-based services, it is important to identify who in the partnership will be responsible for asset management of joint assets.
Consultants	• May be hired to provide specialized asset management services or for other aspects of service delivery where asset management may be relevant (e.g. establishing utility rates, etc.).
Federal and provincial governments	• Have implemented incentives for municipalities to develop asset management processes. • Communities receiving grants from other levels of government may be required to demonstrate their need for the investment by describing their asset management practices.

Activity

Explain the role of each group, who could be a part of each group, and the implications on the success of the AM strategy:

1. Council and chief administrative officer (CAO)

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2. Senior management team (SMT)

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3. AM champion (AMC)

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4. AM steering committee

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5. AM implementation teams

6. AM cohort learning network

Activity

1. What will you need to do to build organizational support for your AM policy
    and strategy?

LEARNING GOAL: Describe the attributes of a successful asset management team

Asset management is intended to build your municipality's capacity to make better organizational decisions. Communication and information management are a key focus of this practice and lay the foundation of AM practices. Decision-making is improved when the right people have the right information at the right time.

In order to support this goal, requires a process of communication and ongoing information management – supported by a culture of teamwork. Asset management is not about having perfect information. It is about ensuring that decisions are made using the best information available, and then improving information where appropriate.

> "Making decisions requires that the right information reaches the right people at the right time. Working across disciplines and departments is required to make this happen."
>
> *A Handbook & Toolkit for Alberta Municipalities*

Building a team

Asset management processes can be scaled according to the size and capacity of any municipality. You don't need to be a big city to have an asset management team, though your team will look different from theirs. It's important that each municipality designs an asset management system that meets their organizational needs and abilities.

Municipalities with smaller staff and capacity will probably have asset management embedded into departments, whereas larger municipalities may have a specific role dedicated to asset management. Either way is acceptable, and still forms a team!

When building your AM team, it is helpful to keep in mind what you will be trying to achieve and what resources you will need to get there. Some communities may choose to appoint or hire a project leader that is dedicated to the task of asset management whereas other communities will draw on existing staff to take on leadership roles within their department. In both circumstances, a culture of teamwork and communication is necessary to deliver the most pertinent information for decision-making.

Cross-functional groups will reflect the size of your community: in smaller communities, it may mean the CAO and the public works manager working together; and in bigger communities, it may mean having a representative from each relevant department meeting regularly. Regardless of the number of participants on your team, you will need cross-functional representation and a champion to drive initiatives forward.

Your AM team will require a minimum involvement of staff who have knowledge in the following areas:

• finance

• public works

• engineering

• planning

All these different perspectives will probably have different objectives for asset management. For example, finance may want to explore long-term financial planning, and public works may want to investigate a new system for organizing and directing repair work. This is absolutely ok – and is actually necessary – for your AM team. Having an interdisciplinary team helps to identify the bigger picture of an approach that can meet multiple, diverse objectives.

Building corresponding competency in people and leadership

Building a team that will lead the implementation of the AM system will require setting up cross-functional groups with clear accountability and ensuring adequate resourcing and commitment from senior management and council. In addition to identifying the players (or roles) that are needed on the team, you also need to think about the competency and skills of these players.

When considering the competencies of your AM champion and team, keep in mind these key attributes for success:

- Leadership qualities, ability and influence to motivate the broader team towards improvement in asset management,

- Equipped with an understanding of asset management and how it connects from policy to specific activities,

- Ability to communicate asset management approaches, progress, and challenges to others throughout the organization,

- Clear accountability and commitment to working together to advance asset management.

Additionally, the successful AM team will also possess the following characteristics:

- Ability to work together and promote a culture of communication,

- Considers and gives weight to all the perspectives and functions that are represented,

- Collective sense of accountability to asset management and improvement in asset management.

Resourcing and commitment

You probably have a dream team in mind for your AM strategy. It's important to think through what resources and support they'll need in order to be successful. This includes both the hard things like financial resources required, as well as the softer things like support for committing part of their time to asset management, as well as opportunities for training and skill building, and a support network that they can bounce ideas off.

Council plays a critical role in setting the tone for what is important in a municipality. Council's leadership is influential and can be very impactful in moving an organization along in developing and implementing asset management practices. Ensuring that you have Council's support to secure the resources and support for your AM team, as well as to support required policies and strategies, are vital steps to making sure that staff's efforts will lead to meaningful results.

LEARNING GOAL: Estimate Financial Resources Required for AM

The basic requirements to getting started

Starting your asset management plan may not be as hard as you think. However, there are a few basic steps that you will want to complete before launching your asset management strategy:

1. Identify a champion that is committed to driving your asset management practice forward. The most important attribute of a champion is their ability to mobilize their team to work collaboratively.

2. Identify a team that will support the project across departments of your organization. Specifically, you will need to draw on expertise representing finance, public works, engineering, and planning.

3. Ensure there is support from management and council.

The success and viability of an AM system depends on the commitment from council to support the resources required for the development and implementation of the asset management process. Before expending time and money in developing expensive plans or collecting data, ensure there is support from senior management and council. Securing council support for the initial development of the system and for future years of operation and investment will help ensure that there is adequate momentum to move forward. If your council is currently not aware of asset management and its benefits, some basic investment may be needed to raise awareness with council before they are able to make the informed decision to commit their support to asset management.

No matter how you decide to build your team, it is important to understand the investment in resources, staff time, and other investments that your AM strategy will require. Understanding these inputs will help you create a realistic budget that is defensible to council, meets your team's needs, and aligns your team for success.

Levels of investment

The level of investment that is made will determine what how much time it will take to reach your asset management goals. However, this will not necessarily have a bearing on your success. For example, if you consider a bicycle versus a helicopter as different levels of investment in your asset management system, both will get you to where you need to go. However, the helicopter will get you there faster and cost a lot more than a bicycle.

> "In building asset management practices, investments may include data collection and management, software programs, staff time, and/or consultants. Each of these resources can cost either a little or a lot – depending on how much infrastructure you have, the current state of your data, and what your needs are" (Handbook & Toolkit for Alberta Municipalities).

THE BICYCLE. Costs basically nothing. Gets you moving, but not that fast.

Use the tools in this toolkit to get started with incorporating asset management into decision making with the information you already have.

THE BUS. Entry level option that gets you where you need to go.

Invest in some training or some advisory support to help you understand where you're at and develop a tailored roadmap for moving forward with carefully selected initiatives.

THE CAR. More options for going where you want, but costs more.

Invest in data management tools, collecting condition data for critical assets or those near the end of their life. Develop or update infrastructure plans.

THE HELICOPTER. Gets you wherever you want, quickly. Really expensive and special operations skills required. May be excessive if your needs are basic.

Comprehensive system of complete and current data for all assets, integrated with financial systems and maintenance management systems. Detailed asset management plans for all asset classes and an integrated corporate level asset management plan.

Source: Alberta Handbook & Toolkit

Not all organizations require a high level of complexity to meet their asset management needs. Identifying what you need from asset management will help you understand how much it might cost.

When you're thinking about what resources you'll need to get your asset management systems going, make sure you're thinking about:

- Staff time and capacity: how much time will members of our asset management team need to focus on asset management? Do they have that time available currently? Do they have the skills they need to do this, or do they need some training?

- Systems, processes, and tools: do we need to invest in any tools to support our efforts, such as an asset management software? Do we need to hire some specific external help to help us develop new processes, perform assessments, or develop plans?

Once this level of investment is decided, it is crucial to ensure that there are adequate resources to support staff to meet the desired outcomes.

"Asset management processes are most effectively built through continuous improvement, so you may start at the entry level and make small investments over time to improve your systems and processes. The important thing is to get started (Handbook & Toolkit for Alberta Municipalities)."

Module 3 – Articulate current state and conditions for success

> **After completing the module, participants will achieve the following learning goals:**
>
> - Define measuring and monitoring in the context of asset management
> - Describe the five competency areas of asset management AND assess current state on the AMRS
> - Define conditions for success

LEARNING GOAL: Measuring and monitoring

How will you know when you are successfully implementing asset management, or if you need to course-correct?

Developing a process to measure and monitor the status of asset management objectives and practices is key to maintaining momentum, especially at the start of your asset management journey. In asset management, you can measure and monitor progress in the process, the actions, and the outcomes.

The process: this includes the organizational tools and systems you have in place to implement asset management, like your policy, strategy, and team. You can measure progress in your processes using tools like the AMRS, or Asset SMART.

The actions: this includes specific to activities you complete, and the (usually) quantitative measurements that go with them. Examples of things to measure include lane-km of road repaired, length of pipe replaced, or facilities refurbished.

The outcomes: this speaks what impacts your processes and actions have on the services that are delivered. Examples of outcomes include fewer reactive or emergency repairs, and therefore fewer interruptions to service, or staff are able to complete more repairs in the course of a year, because their work is more directed. A great tool for measuring outcomes is the Service Sustainability Assessment Tool, available on the Asset Management BC website: https://www.assetmanagementbc.ca/wp-content/uploads/Dashboard-Tool-Assessment-Matrix.xlsm

Here are some questions to help you think through what success in asset management looks like for you:

1. Assess current state - Where are we now?

   When assessing current state, it is important to think about all the areas that contribute to asset management. There are several comprehensive tools available for you to use to assess your current state, including the FCM AMRS and AssetSMART.

2. What direction do we want to go?

   Your asset management approach needs to be in alignment with your organization's higher goals. This is where your asset management policy and objectives provide strategic direction and connection, without getting into the details of exactly how you're going to get there.

3. How do we want to get there?

You may want to tackle all facets of asset management at once, or you may want to focus your efforts on improving things one at a time. Either way is acceptable – as long as it is realistic and achievable. Articulating an asset management strategy and roadmap can help you identify the intermediate milestones and corresponding measurements in between your current and desired states.

Remember: asset management is a journey, not a destination. Successful implementation of asset management is much less tangible (or glamorous!) than cutting a ribbon on opening day of a new facility. Thinking about how you want to measure progress at the beginning of your journey will make it much easier for you to feel successful and communicate your progress to others.

Continual improvement, monitoring and innovation

Creating SMART goals

SMART metrics are helpful in practical implementation of your asset management strategy and roadmap. Periodically measuring the same things in the same ways can clearly communicate progress.

Some examples of SMART goals for asset management:

- By the end of the summer, we will collect all of our hard copy drawings into a centralized place, and will contact an external consultant to learn about what it will take and how much it will cost to turn this information into a GIS database.

> A SMART goal is:
>
> **Specific** – how will we know when we have achieved our objective?
>
> **Measurable** - how will we communicate progress?
>
> **Attainable** – is this something that we can achieve from our current state?
>
> **Relevant** – is this important to those that are affected?
>
> **Timely** – when are we going to do this by?

- By the end of the third workshop in this series, we will have a draft asset management policy that is ready to be taken to council.

- Starting at our next council meeting, we will add a regular asset management item to the agenda to update council on our progress in asset management.

Did You Know:

FCM's Building Blocks of Asset Management contains an action checklist and action planning worksheet that could provide some inspiration for your own SMART metrics.

Key areas to measure

How do you know what's important to measure? The simple answer is, you measure what's important!

"Don't over-measure. Pick some key areas you wish to focus on and monitor these. Use proxies if necessary. Resources are limited in municipalities and you only need to have enough monitoring to be confident that you have a clear understanding of system performance"

FCM's How to develop an asset management policy, strategy, and governance framework, pg. 45

An example:

You've decided you are going to develop your first asset management policy.

How will you know if you're successful?

- Council passes the policy

- Staff use the policy to guide the development of asset management plans that directly consider level of service, risk, and cost

Soliciting feedback

You will probably not be completely successful in everything you try to implement. Soliciting feedback from those affected by changes to evaluate whether you're on your way to achieving your objectives provides you with valuable information to either confirm your approach, or to guide you in course-correcting.

Remember: It is unreasonable to expect that you will get things right the first time, every time. Often we require the information gathered through an unsuccessful effort in order to know what we need to do to be successful.

> While every municipality's goals for asset management may be different, many of the learnings and experience gained through the implementation of asset management are transferrable. Talking to your neighbours about their experience in implementation could go a long way in helping you craft your implementation approach, and vice versa.

Did You Know:

There are several communities of practice across Canada, including Infrastructure Asset Management Alberta (IAMA). IAMA represents individuals in organizations in Alberta who are interested in asset management, providing opportunities to share knowledge, learn, and network.

Data and information

Information can support you in quantitative measurement of your asset management progress. Some important things to know the status of include:

- Asset inventory data – completeness of inventory and condition information

- Performance data – for assets and/or services

- Financial Information – historical costs, expenditures, and funding

LEARNING GOAL: Describe the five competency areas of asset management AND assess current state

FCM's Asset Management Readiness Scale identifies five competencies that are required for successful asset management:

- **Policy and governance:** Putting in place policies and objectives related to asset management, bringing those policies to life through a strategy or framework, and then measuring and monitoring implementation over time.

- **People and leadership:** Setting up cross-functional groups with clear accountability and ensuring adequate resourcing and commitment from senior management and elected officials to advance asset management.

- **Data and information:** Using asset data, performance data, and financial data to support effective asset management planning and decision-making.

- **Planning and decision-making:** Documenting and standardizing how the organization sets priorities, conducts capital and operations and maintenance planning, and decides on budgets.

- **Contribution to asset management practice:** Training and staff development, sharing knowledge internally and participating in external knowledge sharing.

Start here

FCM's Asset Management Readiness Scale helps local governments measure progress on asset management in five **competency areas**. Each of these competencies is a building block. Together, the five building blocks form the practice of asset management.

Policy and governance

People and leadership

Data and information

Planning and decision-making

Contribution to asset management practice

These five competencies are key for sustainable service delivery. Asset management is not just about doing one thing — it is about building a robust understanding of asset needs and implementing good practices for caring for those assets. For a community to do this successfully, it must build skills and practices in each of the competency areas.

Definitions for key asset management terms can be found in the Key Concepts section of this document.

The five competencies

Policy and governance: By developing this competency, your organization is putting in place policies and objectives related to asset management, bringing those policies to life through a strategy and roadmap, and then measuring progress and monitoring implementation over time.

This competency helps you create the policy structure in your organization that lays out your asset management goals and how they will be achieved, leading to organizational alignment and commitment.

People and leadership: By developing this competency, your organization is setting up cross-functional teams with clear accountability and ensuring adequate resourcing and commitment from senior management and elected officials to advance asset management.

Asset management requires integration of multiple perspectives. At a minimum, your asset management team should be a representation of people who understand finance, decision-making, and the planning and operations of each relevant service area. This competency helps you create and sustain connections across teams and build leadership in asset management.

Data and information: By developing this competency, your organization is collecting and using asset data, performance data and financial information to support effective asset management planning and decision-making.

This competency helps you improve your data management practices so that you have the information you need about your assets when you need it.

Planning and decision-making: By developing this competency, your organization is documenting and standardizing how the organization sets asset management priorities, conducts capital and operations and maintenance (O&M) planning, and decides on budgets.

This competency helps you implement asset management, by ensuring that asset management policies, objectives and information are consistently informing organizational plans.

Contribution to asset management practice: By developing this competency, your organization is supporting staff in asset management training, sharing knowledge internally to communicate the benefits of asset management, and participating in external knowledge sharing.

This competency helps you build your organization's overall asset management practice by ensuring that internal stakeholders are well-informed and that your organization stays current with, and contributes to, leading practices, training and education.

Start here   **4**

Activity

1. Refer to the FCM Asset Management Readiness Scale at the end of this section. As a group, think through each competency area and evaluate your community's current state.

Reflection:

Who else in your organization would have a relevant perspective to include in evaluating your current state on the Asset Management Readiness Scale?

Levels and outcomes

Each of the five competency areas is 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. **Each of these three outcome areas need to be achieved before a level has been achieved.** Referring to the outcomes described at each level can help you set goals and objectives, and design initiatives.

A Outcome area A   **B** Outcome area B   **C** Outcome area C

The Asset Management Readiness Scale helps municipalities assess where they are and identify the areas they need to work on. Asset management is a journey and every community will be at a different stage in terms of which competencies they have developed, and which they have not yet focused on.

▶ Learn more

FCM provides resources on asset management through the **FCM's website**.

Communities of practice are also great resources for additional asset management support. You can find a list of Canadian asset management communities of practice on the **Asset Management Canada website**.

Getting started

If your community is just getting started on asset management, and you're not sure how to get to Level 1 on the Asset Management Readiness Scale, we recommend you check out FCM's **The Building Blocks of Asset Management: A How-to Guide for Reaching Level 1 of the Asset Management Readiness Scale**.

Continual improvement

If your community's asset management practices are under way but you want to dig deeper into certain concepts or understand how asset management documents work together, we recommend FCM's **How to Develop an Asset Management Policy, Strategy and Governance Framework: Set Up a Consistent Approach to Asset Management in Your Municipality**, published on FCM's website in 2018.

Completing the Asset Management Readiness Scale for your community

Follow these steps to undertake the Asset Management Readiness Scale assessment for your community:

1. Bring together a cross-functional team of staff from the departments that are relevant to your asset management practices. The Asset Management Readiness Scale assesses the asset management practices across your whole organization — not just the practices related to one asset class. Therefore, it is important that a cross-functional team complete the Asset Management Readiness Scale, not one individual or one department.[1]

2. For each competency area, read through the descriptions of outcomes for each level. Make sure that everyone is on the same page about what they mean.

   You can start with the competency that resonates the most with your team. You do not need to go through the competencies in a specific order; they all work together.

3. Discuss your organization's current state in relation to each outcome and identify what has already been achieved.

4. Select the outcomes that describe where your organization is today. Use your outcome selections to determine your organization's level for the overall competency. You have completed a level once all outcomes for that level have been achieved. If you are still working on one or more of the outcomes for a level, select the previous level to indicate that you have fully achieved all outcomes in that level.

   If you are just getting started in a certain competency, select "Working on Level 1." If you're not sure how to start working on that competency, check out FCM's **The Building Blocks of Asset Management: A How-to Guide for Reaching Level 1 of the Asset Management Readiness Scale**.

5. Use the assessment page at the end of the Asset Management Readiness Scale to write down your levels for each competency area, document how you've achieved those levels, and identify potential actions for improving your organization's asset management practices.

You will get the most out of the Asset Management Readiness Scale by taking the time to work through it as a team and by thinking critically about where your organization is today. Assessing yourself at a lower level does not mean you are not managing your assets, only that you have work to do in formalizing your asset management program. Remember that this is a work in progress!

Over-assessing your organization's achievement will make it more difficult to understand where you should focus your efforts, resources and funding. It may also make it more difficult to identify areas of progress or communicate to staff and council the need for continued improvement in asset management.

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1   In some communities it may be appropriate to include knowledgeable council members in conducting this assessment.

Using the results

The results of your self-assessment on the Asset Management Readiness Scale can be used to support your community's asset management practices in several ways:
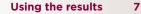
1. Identify priority areas of improvement to help you plan for staff time and resource allocation.

2. Design initiatives to improve asset management practices based on which outcomes you want to work on.

3. Track your progress over time so you know if your activities are helping you improve, or if you need to make some adjustments.

4. Report on the achievement of outcomes to a variety of stakeholders: the internal team, CAO, council, FCM and other funders.

5. Use the shared language of the Asset Management Readiness Scale to talk to other municipalities about where they are and what they did to get there.

Planning for improvement

Each organization's progress in the competencies will depend on a unique group of factors. There is no need to progress through each competency to the same level. You may currently be much further along in some competencies than in others.

Additionally, your municipality may choose to aim for higher levels in some competencies than in others. For example, your community may aspire to reach Level 3 in data and information, Level 4 in planning and decision-making and Level 2 in policy and governance. Keep in mind that Level 4 of the Asset Management Readiness Scale is roughly aligned with the requirements of the ISO 55000 standard — which is a significant accomplishment.[2] It may not be necessary for your municipality to achieve the higher levels in the scale to meet the needs of your community.

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2   Note that ISO 55000 has specific content, documentation, and review requirements that are not always explicitly included in this scale. For example, ISO 55000 has specific requirements on what information needs to be included in a policy, strategy and asset management plan. It also includes specific requirements around continuous improvement. If you are pursuing the ISO 55000 standard, you should refer directly to the ISO 55000 requirements.

Asset Management Readiness Scale

Policy and governance

By developing this competency, your organization is putting in place policies and objectives related to asset management (AM), bringing those policies to life through a strategy and roadmap, and then measuring progress and monitoring implementation over time.

Outcome areas	Outcomes: Select the outcomes that your organization has achieved.				
	Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**
A **Policy and objectives**	☐ Senior management is committed to formalizing an **AM program**.	☐ We have drafted an **AM policy**. ☐ Senior management and council have endorsed the **AM policy**.	☐ We are starting to use our **AM policy** to guide our actions.	☐ We manage assets and services in accordance with our **AM policy** and organizational objectives.	☐ We continue to validate and refine our corporate, service and AM objectives based on the evolving needs of our community.
B **Strategy and roadmap**	☐ We have identified the benefits that we want AM to deliver, and the benefits support organizational objectives.	☐ We have a strategy for our **AM program**. ☐ We have a draft **roadmap** that outlines our approach for the next 1 to 3 years.	☐ We have a **roadmap** that details the actions for implementing our **AM strategy** over the next 3 to 5 years.	☐ We are achieving our **AM policy** objectives. The necessary workflows, documents, and reporting tools are in place. ☐ We update our **roadmap** to address evolving needs.	☐ We follow our **roadmap** and continually improve our AM practices. ☐ We document improvements to our AM practices.
C **Measurement and monitoring**	☐ We have identified short-term actions that will demonstrate early progress on AM.	☐ We are collecting baseline data on our current AM practices.	☐ We have established performance measures to monitor our asset management progress, outcomes, and the benefits to our community.	☐ We use performance measures to monitor AM progress, outcomes, and benefits.	☐ We monitor performance and use the feedback to prioritize and make ongoing refinements and improvements to AM practices.

Readiness level: You have achieved a readiness scale level when your organization can demonstrate achievement of all outcomes for that level.

Readiness level	Working on Level 1	Com-pleted Level 1	Completed Level 2	Completed Level 3	Completed Level 4	Completed Level 5
	☐	☐	☐	☐	☐	☐

People and leadership

By developing this competency, your organization is setting up cross-functional teams with clear accountability and ensuring adequate resourcing and commitment from senior management and elected officials to advance asset management.

	Outcomes: Select the outcomes that your organization has achieved.				
Outcome areas	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
A Cross-functional teams	☐ We have identified the representation we need on our cross-functional **AM team**.	☐ We have a cross-functional **AM team*** that guides the planning and implementation of our **AM program**.	☐ Our **AM team*** works within our organization to lead, communicate, and support AM improvements and organizational changes.	☐ Our **AM team*** is permanent and tasked with guiding and supporting AM across the organization on an ongoing basis.	☐ Our **AM team*** guides and supports the ongoing improvement of AM within the organization.
B Accountability	☐ We have a champion who has been tasked with planning for our **AM program**.	☐ Our **AM team*** has a documented mandate to develop our **AM program**, which is outlined in a terms of reference and a one- to three-year **roadmap**. ☐ Our **AM team** is accountable to senior management and council.	☐ Our **AM team*** is accountable for implementing our **AM program**. ☐ AM roles and responsibilities are included in staff job descriptions.	☐ We have operationalized AM roles and responsibilities across our organization.	☐ We document changes to AM roles and responsibilities as needed to support our evolving requirements.
C Resourcing and commitment	☐ Council knows that resources must be dedicated to exploring the requirements for **AM** and for drafting an **AM roadmap**.	☐ Council demonstrates buy-in and support for AM and allocates resources (funding or staff time) to further develop the **AM program**.	☐ Council champions AM as a core business function and has approved funding to continue **AM roadmap** activities.	☐ Council funds ongoing AM monitoring and enhancement.	☐ The **AM team** measures and monitors progress. ☐ Council demonstrates commitment to ongoing improvement of AM practices.

Readiness level: You have achieved a readiness scale level when your organization can demonstrate achievement of all outcomes for that level.

Readiness level	Working on Level 1	Com-pleted Level 1	Completed Level 2	Completed Level 3	Completed Level 4	Completed Level 5
	☐	☐	☐	☐	☐	☐

* Note: Larger organizations may have both an AM team responsible for implementation and an AM steering committee to provide direction and oversee the work. Smaller organizations may group these functions together. This outcome may be better suited to an AM team or an AM steering committee, depending on the organization. In some small communities the AM team may be as few as two people.

Data and information

By developing this competency, your organization is collecting and using asset data, performance data and financial information to support effective asset management planning and decision-making.

	Outcomes: Select the outcomes that your organization has achieved.				
Outcome areas	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
A **Asset data**	☐ We have **asset inventory data**, including approximate quantities of assets within most asset groups. ☐ We have some anecdotal information on asset condition. Some age information exists.	☐ We have a **basic inventory** of most **critical assets**, including information on general asset properties such as size, material, location and installation date. ☐ We are moving our data to a centralized location for use by the **AM team** (note: this does not require AM software). ☐ We have defined **critical assets** and have some information on asset condition for these assets.	☐ We have a consolidated, **basic inventory** of all assets. ☐ We have defined life cycle investment requirements for **critical assets**. ☐ We have standardized condition rating systems defined for most asset groups. ☐ We have asset condition information on all **critical assets**.	☐ We have expanded **inventory** data for some assets ☐ We have evaluated the life cycle investment requirements associated with **critical assets**. ☐ We update data according to cycles defined in our **AM plans** or **strategy**.	☐ We have expanded **inventory data** for most assets. ☐ We have evaluated the life cycle investment requirements associated with most assets.
B **Performance data**	☐ We have informal or anecdotal approaches for measuring asset or service performance.	☐ We have some information on performance of **critical assets**, collected from a variety of sources.	☐ We have defined **level of service** measurements for some service areas. ☐ We have captured data on current **level of service** performance for some service areas. ☐ We have reviewed service levels and asset performance with council.	☐ We have defined **level of service** measurements for critical service areas. ☐ We communicate the results from our **level of service** measurement program to staff and council regularly.	☐ We have defined **level of service** measurements for most or all service areas. ☐ We continually improve how we collect data on **level of service** performance.

	Outcomes: Select the outcomes that your organization has achieved.				
Outcome areas	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
Financial information	☐ We have **financial information** on our assets, supporting minimum PS-3150 reporting requirements.*	☐ We have major capital renewal and operating & maintenance (O&M) expenditure data for some assets. ☐ We have a strategy to link AM and **financial information**.	☐ We have capital (new and renewal) and O&M expenditure data for most assets. ☐ We have linked AM and **financial information** for all **critical assets**. ☐ We can demonstrate the gaps between forecasted infrastructure needs and current spending levels.	☐ We understand the cost of sustaining current **levels of service** for all **critical assets**.	☐ We understand the trade-offs between investment and the **level of service** we deliver and use this to optimize our financial plans.

Readiness level: You have achieved a readiness scale level when your organization can demonstrate achievement of all outcomes for that level.

Readiness level	Working on Level 1	Com-pleted Level 1	Completed Level 2	Completed Level 3	Completed Level 4	Completed Level 5
	☐	☐	☐	☐	☐	☐

* PS-3150 is the Public Sector Accounting Board's standard guiding the treatment of tangible capital assets.

Planning and decision-making

By developing this competency, your organization is documenting and standardizing how the organization sets asset management priorities, conducts capital and operations and maintenance (O&M) planning, and decides on budgets.

Outcome areas	Outcomes: Select the outcomes that your organization has achieved.				
	Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**
A **Documentation and standardization**	☐ Our asset planning approaches vary across the organization.	☐ Our departments follow a similar but informal asset planning approach. ☐ We evaluate investment needs and priorities based on a mix of structured and ad-hoc practices and criteria.	☐ We have a structured asset planning approach, but application is inconsistent. ☐ We set priorities using criteria based on organizational goals and objectives.	☐ We employ a consistent structured asset planning approach for each of our **critical services**. ☐ We set priorities using criteria that are fully aligned with our organizational goals and objectives.	☐ We employ a consistent structured asset planning approach for all services. ☐ We adapt our planning approach and criteria to align with evolving organizational goals and objectives.
B **Asset management plans**	☐ Our approach to asset renewal focuses on reacting to basic needs (e.g. growth, regulations and known problems). ☐ We evaluate priorities based on available information, staff experience, and input from council and management.	☐ We have draft **AM plans** for some asset classes, with forecasted financial needs based on estimated data.	☐ We have **AM plans** for **critical services**, based on a mix of estimated and actual data. ☐ Our **AM plans** include available information about **level of service** (current and target) and **risk** management. ☐ Our **AM plans** identify short-term issues and priorities.	☐ We have **AM plans** for most services based on actual data. ☐ Our **AM plans** include basic needs forecasting and **risk** management strategies for **critical assets**. ☐ Our **AM plans** are based on both short- and long-term issues and priorities. They balance short-term service objectives with longer-term goals and **risks**. ☐ We keep our **AM plans** up to date through normal business.	☐ We have **AM plans** for all services based on actual data. ☐ Our individual **AM plans** are integrated across services. ☐ Our **AM plans** include needs forecasts and **risk** management strategies for most assets. Plans address **risks** to both service and business goals.

Outcome areas	Level 1	Level 2	Level 3	Level 4	Level 5
Budgets and financial planning	☐ We prepare annual capital and operating budgets based on historical values. ☐ We deal with new needs reactively, as they occur.	☐ We prepare annual capital and operating budgets based on a mix of historical values and new priorities.	☐ We prepare an annual capital budget based on an annual assessment of current needs. ☐ We have a 3-year **capital plan** that addresses short-term issues and priorities.	☐ We prepare annual needs-based capital and operating budgets that are based on an annual assessment of **risks** and current needs. ☐ We have a 5-year **capital plan*** and update it annually. ☐ We update our **long-term financial plan** (at least 10-year) annually and understand the risks associated with our investment gap.	☐ We prepare multi-year needs-based capital and operating budgets that are based on our short- and mid-term needs. ☐ We take a structured approach to address in-cycle changes.

Readiness level: You have achieved a readiness scale level when your organization can demonstrate achievement of all outcomes for that level.

Readiness level	Working on Level 1	Com-pleted Level 1	Completed Level 2	Completed Level 3	Completed Level 4	Completed Level 5
	☐	☐	☐	☐	☐	☐

* Communities may benefit from long-term capital plans that extend beyond five years to ten years or more.

Contribution to asset management practice

By developing this competency, your organization is supporting staff in asset management training, sharing knowledge internally to communicate the benefits of asset management, and participating in external knowledge sharing.

Outcome areas	Outcomes: Select the outcomes that your organization has achieved.				
	Level 1	Level 2	Level 3	Level 4	Level 5
A Training and development	☐ Our AM training and development approach is informal and largely driven by the personal initiative of staff. ☐ Some staff conduct targeted research, seeking out basic information on AM concepts and techniques.	☐ Our AM training and development requirements are defined by management based on short-term needs. ☐ Selected staff are trained on basic AM concepts. ☐ Council has opportunities to increase their understanding of AM concepts.	☐ We provide all staff with basic AM awareness training. ☐ Some staff undergo training on advanced AM concepts specific to their roles and responsibilities. ☐ Staff and council are able to communicate the value of AM in their own words.	☐ We define AM knowledge and skill requirements. A training plan is in place for all positions. ☐ Council, management and staff receive role-appropriate AM training to establish needed capacity across the organization.	☐ We train select staff members as internal experts to support the ongoing development of organizational capacity. ☐ Proactive, role-based training serves as a support for career development and succession planning.
B Internal communication and knowledge sharing	☐ We are aware of the need to mitigate the risk of losing information held in the minds of long-term staff.	☐ We mitigate the risk of losing information held in the minds of long-term staff, through improved record keeping.	☐ A culture of knowledge sharing is emerging internally, supported by official initiatives. ☐ We collect and maintain AM knowledge resources. ☐ We communicate the benefits of AM internally to staff and council.	☐ A culture of knowledge sharing exists and is supported by a mix of formal and informal initiatives. ☐ We disseminate AM knowledge resources within the organization.	☐ We capture AM knowledge and it flows freely throughout the organization. ☐ Staff leverage internal and industry knowledge and leading practice resources.

Outcome areas	Level 1	Level 2	Level 3	Level 4	Level 5
C **External communication and knowledge sharing**	☐ We are investigating AM-related organizations and resources.	☐ Staff or elected officials attend AM-related events. ☐ We share basic information on current capital projects with the public.	☐ We are members of one or more AM organizations and actively share our AM experience. ☐ We share basic information on our assets, the services we provide, and future needs with the public.	☐ We are actively involved in AM organizations and present at AM events. ☐ We share information with our peers on our experience, innovations and lessons learned. ☐ We rely on the data from our **AM program** to explain decisions to the public.	☐ We are a thought leader on AM within the municipal sector. ☐ We are active in coaching others to improve the overall body of AM knowledge. ☐ We communicate the benefits of AM to the public.

Readiness level: You have achieved a readiness scale level when your organization can demonstrate achievement of all outcomes for that level.

Readiness level	Working on Level 1	Com-pleted Level 1	Completed Level 2	Completed Level 3	Completed Level 4	Completed Level 5
	☐	☐	☐	☐	☐	☐

Source: Government of Nunavut

LEARNING GOAL: Define conditions for success

You've learned a lot today about what asset management is, why it's important, and what the minimum requirements are for getting started. Now what?

The objectives of this course are to advance participants in their asset management capacity, specifically in the areas of establishing and developing your asset management team, policy and strategy. Take some time to think through how you can take what you've learned back to your organization, and how you can work together with your neighbours to progress with each other's support

Reflection

1. How will the development of a policy and strategy draw on each of these asset management competencies?

2. How will you know if your AM Policy, Strategy and Team are successful?

3. For an AM policy and strategy to be successful in your organization, what attributes must it have?

4. What are other critical factors for success?

5. What would you hope to achieve through this program, and what might you need to do in between group sessions as a community?

6. Can you do any of these things with the support of your neighbours?

Reflection:

What did you learn today that surprised you? What would you like to know more about?

Looking forward to Workshop 2

The next workshop is going to focus on developing your asset management team and strategy. This workshop will provide you with the time and space to work on these things as a team, with access to tools, resources, and the experience of your neighbours and the facilitators.

Tasks to complete before the next workshop:

- Identify your asset management champion

- Talk to council about asset management, and provide an update on what you learned at today's workshop

- If you have one, review your asset management policy with your champion. If you don't have one, talk to your champion about what an asset management policy could look like for your municipality, and review the sample policies provided in the resources section.

- Check in with your neighbours to share progress and experience

Workshop 2: Develop your AM Strategy and Team Terms of Reference

Welcome to Workshop 2! Over the next two days, we will be "putting pen to paper" and will spend a lot of working time developing your asset management strategy and team mandates.

Module 4–Develop Asset Management Strategy

After completing this module, participants will achieve the following learning goals:

- Reflect on progress in asset management since the last workshop, review components of an asset management strategy and describe a process for developing a strategy

- Develop asset management objectives

- Identify and prioritize goals that support asset management objectives

- Outline your asset management roadmap for the next 5 years

Reflect on progress, review components of a strategy and describe a process for developing a strategy

Activity

1. Reflect on your progress since the last workshop. What did you accomplish, and what do you still have left to do?

2. What challenges did you encounter in completing the assigned tasks?

3. What conversations did you have about asset management? With whom?

4. Did anything surprise you in completing these tasks?

5. What have you learned that you think could help you with your next steps?

As a refresher, a strategy:

- Outlines the framework and approach for implementing the asset management policy
- Serves as the conceptual structure for the asset management system
- Defines the system's internal makeup and interactions with external practices or functions
- Identifies objectives (specific, measurable outcomes required of assets and asset management) and reporting requirements
- Provides an overview of current corporate assets, services, risks, costs, and funding
- States status of corporate asset management practices
- Identifies goals
- Outlines strategies to improve asset management practices
- Outlines relationships between other corporate initiatives or plans

In this course, we will be following the Asset Management Handbook & Toolkit process for developing and implementing an asset management strategy:

1. Establish a baseline
2. Develop asset management objectives
3. Identify goals and appropriate activities for each objective
4. Outline a corporate approach to asset management for the next five years
5. Communicate the strategy
6. Use and update the strategy

You will be provided an asset management strategy template that follows this process. We will be walking through this together, with facilitated activities and discussion along the way that are designed to help you develop and test your strategy.

Source(s): *Building Community Resilience Through Asset Management: Handbook & Toolkit for Alberta Municipalities; FCM Guide: How to develop an asset management policy, strategy and governance framework*

LEARNING GOAL: Considering your baseline assessment, develop asset management objectives

Establish a baseline

There are a variety of tools available to help you assess your current asset management practices, including the NAMS maturity assessment, AssetSMART 2.0, and the FCM AMRS. In Workshop 2, we will be referring to the FCM AMRS assessment we completed in Workshop 1.

Your baseline also considers the other initiatives that influence asset management or tools you are currently using to support asset management processes. These may include:

- Basic asset inventory, in GIS or Excel
- Tangible Capital Assets inventory
- Capital plans
- Municipal development plan
- Sustainability or climate change related plans

- Asset management policy
- Asset management strategy
- Asset management plan
- Infrastructure master plans
- Community strategic plan
- Others?

Activity

Review your FCM AMRS assessment from the last workshop. What are the most important areas to improve in, and why? What do you want to achieve from that? Compare your answers to your community's strategic plan (if you have one) – do your priorities support the strategic plan?

Develop asset management objectives

Your asset management strategy will include a set of objectives, the goals associated with each objective, and a list of actions required to achieve each goal.

Objectives are statements that articulate your vision and guide your approach to achieving your vision through strategy. Objectives need to be:

- Clear
- Broad
- Aligned with community priorities
- Relevant to staff throughout the organization
- Focussed on what matters most

At the same time, objectives need to be specific to your context and speak directly to the challenges and opportunities in your community.

Some examples of an objective and how that objective is supported by goals and activities are below:

Objective: Improve physical fitness

Goals:

- I can run 5km without stopping
- I can do three pull ups in succession

Activities:

- Research and select a training plan for completing a 5km run
- Identify a target 5km community run and sign up
- Implement selected training plan to be ready for the day of the event
- Install a pull up bar in my house and practice daily

SOME QUESTIONS TO CONSIDER WHEN DEVELOPING OBJECTIVES:

- What is the vision for your community?
- What are the biggest opportunities or strategic risks to achieving the vision?
- How can asset management enable the achievement of the vision, or the management of risks?
- Why is it critically important for your community to advance in asset management?

Objective: Reduce lifecycle costs of major infrastructure

Goals:

- We have defined the current lifecycle costs of major asset classes.
- We have optimal proactive maintenance programs in place to extend the life of the assets.
- Design and procurement decisions consider lowest lifecycle cost options.

Activities:

- Update replacement costs for asset types in major asset classes.
- Use existing O&M cost data to estimate costs of current operations and maintenance activities by major asset type.
- Develop a proactive maintenance program for one pilot asset type
- Update capital project business case template to include assessment of lifecycle cost options
- Train staff on use of updated business case template

Activity

Refer back to page 14 -16 of the workbook from Workshop 1, and reflect on your past answers to the activity questions. Use the tools you brought with you, your past activity answers, and what you've learned since Workshop 1 to identify key areas for improvement in asset management.

Activity

With your asset management team, review the sample "menu" of asset management objectives included in the workbook appendices. Discuss which objectives are the most relevant and important for your community, edit them, and add your own if needed.

Activity

Partner up with another community and share your top asset management objectives. Why is each objective important for your community? Play devil's advocate and ask questions about why each objective is a priority and what it means.

LEARNING GOAL: Identify and prioritize goals that support your asset management objectives

Identify goals for each objective

In this course, asset management goals are specific and measurable outcomes that will help you achieve your defined objectives. Objectives are typically high-level and broad. Goals break the objectives down into the various things that need to be accomplished before you can achieve your objective. Each of the goals will be broken into several actions in our next step of developing the roadmap – but for now, we're focusing on the goals.

For example:

Objective: Improve physical fitness

Goals:

- I can run 5km without stopping
- I can do three pull ups in succession

Activities:

- Research and select a training plan for completing a 5km run
- Identify a target 5km community run and sign up
- Implement selected training plan to be ready for the day of the event
- Install a pull up bar in my house and practice daily

Objective: Reduce lifecycle costs of major infrastructure

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Activities:

- Update replacement costs for asset types in major asset classes.
- Use existing O&M cost data to estimate costs of current operations and maintenance activities by major asset type.
- Develop a proactive maintenance program for one pilot asset type
- Update capital project business case template to include assessment of lifecycle cost options
- Train staff on use of updated business case template

Note that the goals are for the timeline of the overall Strategy (commonly five years) and so they may only get you on a path towards achieving your objectives rather than fully achieving them. This is by design – you will revisit your strategy regularly and update the goals and activities as needed.

Some areas to consider when thinking about goals to support your asset management objectives:

- Internal asset management awareness and education
- Understanding of lifecycle costs of assets
- Available ability and capacity to communicate about asset management to council and/or internal staff
- Asset inventory completeness, accuracy, and trustworthiness
- Organizational definition of risk, and organizational understanding of risk
- Climate change considerations
- Documented risk assessment approach and completed assessments
- Definition and documentation of levels of service, in consultation with relevant stakeholders
- Discussion and documentation of trade-offs in decision-making processes
- Integration of asset management into capital planning process
- Communication with the public
- Integration of asset management progress measurement with existing annual processes

It is common to go back and refine your objectives as you define your goals – the process can be iterative.

A strategy defines not just what you will do, but also considers what you will say 'no' to. You can't improve in everything all at once, though it is very tempting to try! It's a very important step to think of all the things you could possibly do, identify your priorities, and practice articulating why you chose your priorities.

Not sure where to start? Here's a suggestion for common first goals for a first asset management strategy:

1. We have a consolidated asset inventory.

2. We have an asset replacement forecast to help us understand our infrastructure deficit and future risks.

3. Staff and council are aware of our infrastructure deficit, future risks to service delivery, and the need for asset management.

Activity

As a group, brainstorm all the goals your community could set to improve in asset management. Evaluate each on a scale of 1-10 for amount of effort required, and on a scale of 1-10 for level of impact. Hint: look back at your answers to the activities we completed in Workshop 1 for inspiration.

Which goals need to be achieved first (what's the critical path)?

Goal	Effort (1= low, 10 =high)	Impact (1=low, 10=high)

Reflection

Which goals are standing out as high impact, low effort?

Try it out

Have one of your team members visit another community (your facilitators will be telling you who to visit!). The rest of the team will present their objectives and strategies, and AM champions will ask questions and provide comments or suggestions.

Reflection

Did you make any adjustments to your top priorities? Why or why not? Do you think Council/other staff may have some of the same questions?

Consider each of your top goals. What does success look like for each of these?

LEARNING GOAL: Outline your asset management roadmap for the next five years

Brainstorm activities to support goals and objectives

Now that you have objectives and goals, you need to think through the actions you will take and how to organize yourselves for implementation and set responsibilities and deadlines.

Example:

Objective: Reduce lifecycle costs of major infrastructure

Goal: We have defined the current lifecycle costs of major asset classes

Activities:

- Begin pilot test with roads

- Quantify lifecycle cost with current capital and maintenance regime

- Identify alternative approaches for capital construction and maintenance, and the impacts on lifecycle costs

Final action: Select an optimal regime to reduce lifecycle costs

We will now walk through the editable asset management strategy template. Feel free to use this template to record your asset management objectives, goals, and activities moving forward in this course.

Activity

In your AM team, brainstorm activities that could support your goals. Identify and record the following for each activity:

- Who is responsible for completion?
- Is this a short, medium, or long-term priority?
- Start date
- Anticipated level of effort (low, medium, high)
- Other resources/tools that may be required for completion (eg AM software, consultants, etc.)
- Anticipated outcome (how will you know when you're successful?)

There is a roadmap table for you to fill out in the editable asset management strategy template. Once your roadmap has been filled in, review and ask:

- Do these priorities make sense?
- Is this reasonably achievable?

Activity

1. Share your asset management strategy with the broader group. Why did you choose these objectives, goals and activities? How do you think these will advance you in asset management?

2. How important do you think it is to communicate this strategy to the rest of your organization? To Council? To the public?

3. Was this hard or easy? Does this approach (baseline assessment → priorities → objectives → goals and strategies → implementation) work for you?

Communicate the strategy

Developing your strategy is important, but equally if not more important is communicating that strategy to all stakeholders in a way that will help them understand how it impacts them. If a football team had a strategy, but the only person that knew about it was the captain, the strategy would most likely not be implemented and the team would not be effective or successful. If the football team had a strategy, and everyone knew about it, but were unclear what they were supposed to do to implement that strategy, it would still be unlikely for the team to be effective and successful.

We'll be tackling communication of your strategy later in Workshop 2.

Use and update the strategy

Congratulations – you now have a first draft of an asset management strategy and roadmap. Now you get to test it out!

Asset management is a process of continuous improvement. Guaranteed, your strategy won't be implemented exactly as you've designed it today. Circumstances will change, you will face challenges, and you'll learn things along the way. You'll need to update your strategy and roadmap so that they continue to be useful documents.

Take some time to think through how often you'll be either reviewing or updating your strategy, or both.

Reasons to review your strategy:

- Periodic check-ins throughout the year to monitor progress
- Questions from council or the public about the contents of the strategy
- Evaluation of additional activities outside of what is defined in the strategy
- Turnover in council
- Turnover in staff
- Others?

Reasons to update your strategy:

- Timeframe on the roadmap has passed
- You have completed all or most activities ahead of time and need to plan for your next steps
- Your community has seen a major shift in priorities, and some or all your objectives are no longer relevant

You can follow the same general process that we used in this workshop to update your strategy in the future. Depending on where you're at when you go to update it next, you may or may not need to complete all of the steps from scratch again.

Module 5: Develop Asset Management Team Terms of Reference

After completing this module, participants will achieve the following learning goals:

- Review the importance of an asset management team
- Develop asset management team terms of reference

LEARNING GOAL: Review importance of an asset management team

Asset Management is a team sport and requires representation from all parts of the organization.

Considerations when building a team:

- Your approach is scalable to community size and capacity – there is no one size fits all!
- Identify a champion and a cross-departmental team
- Identify roles and responsibilities
- Identify gaps

Why should our asset management team have a terms of reference?

A terms of reference serves as written documentation of what your asset management team is structured to do and how it will operate. Having this document can make it easier to communicate with others what your intent is, align expectations, onboard new staff members, and maintain consistency of purpose within your team over the long term. It is much simpler to remind yourself what you're aiming for when you can go back and physically look at it! This will also help you with knowing where or how to adapt your team's purpose and approach as you advance in asset management.

Reflection

What will you need to do to secure support from management and council, if you don't already have it?

We have also provided you with a sample template for an asset management team terms of reference. We will work through this together, like we did for the asset management Strategy.

Develop asset management team terms of reference

A team terms of reference identifies the following:

1. Purpose of the asset management team

2. Membership and structure

3. Accountability and reporting

4. Roles and responsibilities

5. Communication and meetings (lines of communication, form and frequency of communication)

6. Succession planning approach

Some guiding questions to answer for each part of the team terms of reference:

Team purpose:

- What is this team's function? What are you trying to accomplish?

Membership and Structure:

- Who should be on the team (what perspectives and roles)? Who is the AM champion, and who is supporting them? Are there any gaps?

Accountability and Reporting

- Where does approval authority lie?

- How will the team report on progress? To whom?

Roles and Responsibilities:

- What is each role responsible for?

Communication and Meetings:

- Lines of communication (if necessary or applicable)

- Team meetings (frequency, preparation and leadership responsibilities)

- Communications to the rest of the organization (purpose, frequency, responsibilities)

- Communications to Council (purpose, frequency, responsibilities)

Succession Planning Approach

- How often will your team revisit your terms of reference, and update if necessary?

- Identify any gaps in current membership, articulate risks of not having that perspective present

Activity

As a team, develop your mandate. Facilitators will be available to provide thinking partner support and to answer any questions along the way.

Module 6: Communicate asset management strategy to others

After completing this module, participants will achieve the following learning goals:

- Articulate why it is important to communicate about asset management, and to which groups

- Identify a target audience

- Prepare and deliver a short presentation about your asset management strategy designed for your selected target audience

LEARNING GOAL: Why do we need to communicate about asset management, and to which groups?

Remember, these are the benefits of AM:

Asset management helps municipalities

- evaluate and communicate trade-offs

- make evidence-based decisions

- defensibly prioritize projects and resources

- align organization with things that matter most

- decide what infrastructure needs to be replaced or renewed

- determine how much should be saved for future infrastructure renewal

- demonstrate accountability to community

A good AM system is not the most sophisticated, most expensive, or even most comprehensive. A good AM system is one that is understood and supported by staff, council, and the community and is ultimately implemented. Implementation will require a certain amount of change management and may require different approaches for different perspectives. Your challenge is to help stakeholders with perspectives other than yours make the connections between the benefits of asset management and how it will help them do their jobs.

Consider the following groups and their interests:

Council:

- offer citizens a level of service and added value
- respect the strategic plan
- adopt and follow the sustainable development plan
- maintain a balanced budget
- minimize risks
- preserve community identity
- leave a positive legacy
- Others?

Management:

- implement council's vision by respecting the strategic plan
- oversee administration of municipality
- implement policies and maintain regulatory compliance
- leave a positive legacy
- retain internal expertise and develop staff
- Others?

Finance:

- prepare financial reports and capital asset accounting
- design revenue collection plans and pricing rates
- balance and manage debt
- respect standards and complete audits
- understand cash flow needs
- avoid spending spikes
- Others?

Staff:

- Work in accordance with regulations, standards, and policies
- Operate as per departmental budget allocations
- Conduct projects on time and on budget
- Showcase the community by developing built environment and bylaws
- Maintain business licenses, assets and project tracking
- Provide service and resolve any service delivery issues despite constraints
- Communicate relevant field information to management
- Comply with operating permit requirements and preserve them
- Ensure management of natural assets, including any legislative requirements
- Consultation and awareness internally and externally about service delivery and sustainable development issues

Activity

Reflect on your community, your organization, and the work you've put in to advancing asset management over the last two workshops. Which is the most important stakeholder group for you to communicate with next (and in the short term) to build support for your asset management approach?

Activity

Working with your team, prepare a 5-7-minute presentation about asset management to your identified target audience. You can use the presentation outline provided, or parts of the FCM sample presentation, or you can use neither of those things and choose to go your own way.

Looking forward to Workshop 3

You have accomplished a lot in the last two days. The discussions you had may have been challenging but developing a thoughtful asset management strategy and team terms of reference are important steps in advancing in asset management.

We have one more workshop left in this series, where we will tackle your asset management policy. Between now and then, consider the following actions:

- Share your asset management strategy with other staff that were not a part of its creation but have roles to play in implementation. Describe the process you went through in creating the strategy and ask for their input.

- Deliver your strategy presentation to your target audience. The sooner you do this the better – a presentation is always better the second time around, take advantage of this while it's still fresh!

- Share your asset management strategy with council (if they were not your target audience). Remember, council does not need to approve this strategy, but they can show their support for it by endorsing it.

- Take a moment to reflect on where you started at the beginning of this workshop series, and celebrate how far you've come!

Workshop 3: Develop your AM Policy

Welcome to Workshop 3! Today we will be revisiting the concepts behind an AM policy, learning about what a policy needs and doesn't need, and spending some time drafting a first policy or reviewing your current policy if you already have one.

Module 7–Develop Asset Management Policy

After completing this module, participants will achieve the following learning goals:

- Reflect on progress in asset management since the last workshop
- Review the role of policy in asset management
- Identify the components of a policy
- Develop your asset management policy

LEARNING GOAL: Reflect on progress since last workshop

Group Discussion

How did it go sharing your strategy and team TOR with other staff/council? Any surprises or lessons learned?

Activities assigned after the last workshop:

- Share your asset management strategy with other staff that were not a part of its creation but have roles to play in implementation. Describe the process you went through in creating the strategy and ask for their input.

- Deliver your strategy presentation to your target audience.

- Share your asset management strategy with council (if they were not your target audience).

- Take a moment to reflect on where you started at the beginning of this workshop series and celebrate how far you've come!

LEARNING GOAL: The role of policy in asset management

Policies play an important role in the governance of asset management practices. These policies will be brought to life through a strategy and roadmap; and measuring progress and monitoring implementation over time will contribute to the program's success.

The asset management policy should clearly outline the objectives of AM in your municipality and the underlying principles that your municipality intends to follow when using AM practices to meet the requirements of your municipality's strategic plan(s).

This competency helps you create the policy structure in your organization that lays out your asset management goals and how they will be achieved, leading to organizational alignment and commitment.

Why have a policy in the first place?

Policies are documented sets of high-level principles and statements of intent that council can use to provide guidance to internal administration. Codes of Conduct and Committee Procedures are common policies used for municipal processes. Policies guide how decisions are made within the municipal government and can be flexible and amended if needed.

Staff will support the development of policy through research and drafting the policy, under direction from the CAO. Staff are also responsible for the implementation of the policy. Policies should be informed by consultation with internal stakeholders.

Council will adopt the policy through resolution once they are satisfied with it. Council has an important role in ensuring (at a high-level) that resources are available in the annual budget to enable the implementation of the policy.

The following are examples of policies related to infrastructure and service delivery:

- Asset management policy
- Snow and ice control policy
- Asset reserves policy

Infrastructure and asset management can also be considered in other types of policies; for example, policies related to public works or finance may include asset management components.

Why have an "asset management" policy?

A policy is documentation of council's formal commitment to asset management. The policy is a documented statement of guiding principles, intent, and expected outcomes to guide administration in implementing council direction. Implementing an AM policy has significant potential benefits for a municipality, including identifying accountability and responsibilities in AM implementation.

Asset management policies are an important mechanism for council to provide guidance to the CAO and staff. Providing this guidance in a policy ensures that the guidance is clear and consistently provided. The following are some asset management activities and decisions that can benefit from policy statements that communicate intent and guidance:

- Communicating the link between corporate vision and objectives, and asset management
- Meeting or exceeding regulatory requirements for asset management
- Setting levels of service
- Managing asset and strategic risk
- Funding and financing asset acquisition, replacement, and operations and maintenance
- Infrastructure inspection and maintenance
- Multi-year budgeting

- Developing and prioritizing infrastructure projects
- Tangible Capital Asset (TCA) reporting
- Developing and managing asset reserves
- Making investments in staff development and training

The great policy debates

When developing your Asset Management Policy there are two approaches to consider. Asset management may be developed as a stand-alone policy, or AM principles may be integrated throughout your organization's policies. These approaches are both valid and their success will depend on your organization's ability to implement the approach that you take.

A key question to think about is whether you already have AM language and intent built into some of your existing policies and are well on your way to achieving desired AM outcomes, in which case, an integrated approach might be more appropriate. Communities that have already taken steps in asset management and have established processes already reflected in policy may also be more suited to integrating AM language into existing policies.

SHOULD OUR AM POLICY BE A COUNCIL OR ADMINISTRATIVE POLICY?

This is another great policy debate. For communities just starting on their asset management journeys, it is recommended to keep policy at a Council level and develop a strategy and roadmap that articulate administrative procedures and implementation actions. Since it is critical to include Council in AM, having at least a Council policy is required. The strategy and roadmap are more easily updated which makes for a less restrictive framework for implementation. Win-win!

On the other hand, if your organization is just starting on your AM journey and there is a need to raise awareness about AM and what it means to implement AM, it may be more effective to develop a standalone AM policy. Choosing an approach should consider the context of your organization's existing policies and should gauge the appropriate level of effort needed from your AM team.

Stand-alone policy

- A standalone AM policy that is adopted by council.

- A council-adopted AM policy instructs the municipal administration to implement AM practices and provides guiding principles and expected outcomes for these practices.

- When beginning the process of developing your AM policies, creating one standalone AM policy may be the most effective way to raise awareness about AM, why it is important, and changes that are needed to achieve objectives.

Integrated policies

- Seeks to integrate AM principles and desired outcomes throughout the organization's policies.

- If you are already on your way to achieving desired AM outcomes, you may choose to integrate AM throughout your organization's existing policies.

- This decision may also depend on your organizational culture and what will gain the most traction for implementation.

Activity: Let's get into the great policy debates…

1. What policies do you know your community has related to AM or service delivery? What is the intent of these policies? How well are they followed? What do you think inhibits their successful implementation?

2. What makes the most sense for your community – a standalone policy for asset management, or integrating asset management into your existing policies? Why?

LEARNING GOAL: Components of a policy

The four key components of an Asset Management Policy

In this course, we will follow the FCM's "How to develop an asset management policy, strategy and governance framework" for developing and implementing an asset management policy. The four main components of an AM policy are:
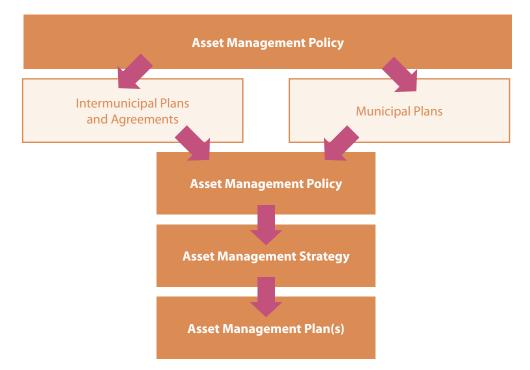
Intent:

- The policy document clearly articulates the intended outcomes of the policy.
- The first paragraph of the asset management policy should articulate council and/or senior management commitment, intentions and high-level expectations related to AM.
- An AM policy provides robust AM principles to focus the municipality on its long-term commitment to achieving its service delivery and other strategic objectives. Because of this, the policy should be in place over several council terms, and the content should be kept at a high level to ensure continuity of the fundamental principles in the policy.
- Actions for implementation do not belong in the policy; these can be detailed in the AM Strategy or Roadmap which will be easier to review and update over time.

Scope:

- The policy document describes the people, assets, and services to which the policy applies.
- The asset management policy should indicate the scope of services and associated assets covered by the AM principles. This scope may evolve over time, and any change will be captured in periodic updates to the AM policy.
- It is best to avoid referring to Tangible Capital Assets (TCA), because the definition varies for each municipality and often doesn't relate to assets covered under the AM policy. When establishing the scope of the policy, take into account the following questions and considerations:
  - What services and assets will be included in the scope of your AM policy? There are different municipal functions, departments and asset groups within your overall asset portfolio. The aim is to focus the policy on the services provided, and include the assets required to deliver those services. These may be included as a table or list of asset classes, or scope may be described in paragraphs.
  - The policy should apply to both existing and new future assets.
  - How will the policy apply to assets that are owned by other agencies, but operated and maintained by the municipality?
  - How will the policy apply to assets that are owned by the municipality, but operated and maintained by external service providers?
  - How will the policy apply to municipally owned or controlled corporations or subsidiaries?
  - Will the policy include natural assets, such as land, drainage channels, rivers and aquifers? There is increasing recognition of the contribution that natural assets make to service delivery, but no standard approach for incorporating them formally into asset management planning. Some municipalities are taking stock of their natural assets and budgeting for the necessary protection and maintenance, while others are leveraging them to reduce the costs and risks of service delivery.

Principles:

- The statement of principles is an important part of the policy that provides direction on applying AM within the municipality, and guidance on what AM practices should cover. The principle statements should be aligned with the community vision and existing strategic plans to ensure the "line-of-sight" connections between the municipality's strategic direction and asset management efforts. The principles will directly influence staff decision-making across the whole municipality.

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┌─────────────────────────────────────────────────────┐
│              Asset Management Policy                 │
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    ↓                                       ↓
┌──────────────────────┐        ┌──────────────────────┐
│  Intermunicipal Plans │        │    Municipal Plans    │
│    and Agreements     │        │                       │
└──────────────────────┘        └──────────────────────┘
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      ┌─────────────────────────────────────┐
      │       Asset Management Policy        │
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      ┌─────────────────────────────────────┐
      │      Asset Management Strategy       │
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      ┌─────────────────────────────────────┐
      │       Asset Management Plan(s)       │
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- Statements of municipal asset management principles are of utmost importance in an asset management policy. These statements will define the high-level approach to AM and will directly influence staff decision-making throughout all levels of the organization.

- Sound AM principles drive decision-making approaches and promote the desired culture and behaviors, such as collaboration and a mindset of continual improvement. The principles shape the various practices and processes embedded within AM practices and the required skills and competencies of AM staff.

Responsibilities:

- The application of asset management is the responsibility of a wide range of people throughout the municipality; however, specific people will be responsible for approving the AM policy and leading its implementation.

- Council's responsibilities should be clearly articulated in the policy. Their primary responsibilities are to:
  - Approve the AM policy
  - Receive information about the progress on implementing the policy
  - Approve resources for implementation of the policy

- Council typically authorizes the CAO to implement AM across the municipality and to allocate the appropriate resources to make this happen.

- Additional details about roles and responsibilities should be explained within the AM strategy document and incorporated throughout AM practices within job descriptions.

- If applicable to the municipality, the policy should be signed by the person responsible for leading the implementation of the AM policy.

Additional considerations

Below are the types of information that provide important context and should be included in an asset management policy:

- Objectives for asset management and overall purpose of the policy

- The organization's commitment to meet or exceed regulatory requirements

- Requirement for a systematic approach to asset management and integration of asset management with existing processes

- The importance of staff training and capacity building

- Information management – integration of engineering and financial information where possible

- The use of an organizational framework, including the development of a strategy and/or plans

- Continuous improvement – requirement for monitoring and reporting

- Roles and responsibilities for asset management (council and administration)

Other content that may be helpful in developing your AM policy are:

- Background
- Related documents
- Review timeline
- Definitions

CHECKLIST FOR STRONG POLICY:

- Are policy statements high-level, and do they provide guidance? Are they clear enough that staff will be able to implement them and report back to council on implementation?

- Is our policy appropriate for today, and can it be implemented upon adoption?

- Are there circumstances you can think of when you might not want to follow the policy? How you would deal with these? The policy should be flexible enough that unexpected situations do not discredit the whole policy.

- Is the language is aligned with the intent? "We will" vs "we may" vs "at the discretion of council" signal different levels of commitment as well as defines who can make the decision.

- Does it cover how implementation should be reported on?

Activity

Review Policy #3 in your workbook, and answer the following questions for each scenario:

1. Your Council has directed you to investigate the purchase of an asset management software. You have evaluated a few options and have shortlisted three providers. Your top selection is more expensive than the others, but this software provides all the features you currently need and has other functions that you can grow into. Your Council is pushing back and wants to go with the cheaper option that does not have all the features you need.

- How does the policy support asset management in this scenario?

- What gaps do you see in the policy's support for asset management?

- How do you think those gaps would be best addressed – through a policy revision, administrative procedures, or perhaps even a bylaw?

- Once you make the decision on software, does this policy support putting a line item in your budget to support this software in the long term?

2. Think about your last budget meeting with Council, and the conversations you had about prioritizing efforts and resources.

- How would this policy support Council in fulfilling their role in asset management?

- What gaps do you see in the policy's support for asset management?

- How do you think those gaps would be best addressed – through a policy revision, administrative procedures, or perhaps even a bylaw?

Activity

1. Revisit the AM objectives you developed for your strategy. Would you include these in your policy? Why or why not?

Activity

1. Review the menu of principles. Which ones stand out to you? How would you change them to use in your community's policy? (If you are inclined to integrate AM into existing policies rather than as a stand-alone policy, these principles could still be included in your current policies).

EXAMPLE ASSET MANAGEMENT PRINCIPLES

Connection to LOS

Levels of Service will continue to be determined and refined in consultation with the community.

Asset renewal plans will be prioritized and implemented progressively based on agreed Levels of Service and the effectiveness of the current assets to provide that Level of Service.

Consult with customers.

Consider the criticality of the services provided and minimize the risks of disruption.

Define and articulate asset performance, maintenance and replacement standards and outcomes.

Trade-off Decision Making

Asset renewals and Levels of Service defined in adopted Asset Management plans and long-term financial plans will form the basis of annual budget estimates with the service and risk consequences of variations in defined services levels and budget resources detailed in budget documentation.

Articulate and evaluate trade-offs and record the basis for a decision.

Manage assets sustainably considering the municipality's environmental, social and economic responsibilities and the life cycle costs of assets.

The municipality shall operate and manage the assets to ensure service delivery to the community in a manner that considers quality of life, long term costs and risks.

Natural Assets are recognized by Council as performing essential service delivery and will be identified and managed in a similar manner as Engineered Assets.

Consider the effects of climate change in the design, renewal and replacement of assets.

All relevant legislative requirements together with social, economic and environmental impacts are to be taken into account in Asset Management.

Improvement in AM Practices

A consistent Asset Management Strategy will be used for implementing systematic Asset Management and appropriate Asset Management best practices throughout all departments of the municipality.

Asset Management principles will be integrated within existing planning and operational processes.

Asset Management plans will be developed for major service/asset categories. The plans will be informed by community consultation and financial planning and reporting.

Training in asset and financial management will be provided for relevant staff.

An inspection regime will be used as part of Asset Management to ensure agreed service levels are maintained and to identify asset renewal priorities.

Develop and demonstrate improvement towards best practices.

Report on the performance of its Asset Management Program.

Financial Management

Systematic and cyclical reviews will be applied to all asset classes and are to ensure that the assets are managed, valued and depreciated in accordance with appropriate best practices.

Future life cycle and replacement costs for all asset categories will be established with a goal to be completed by 2019.

The municipality shall operate in manner that takes into account the financial effects on future generations and considers changing community circumstances and external economic risks to ensure a vibrant community for generations to come.

Integrate corporate, financial, business, technical and budgetary planning for assets.

Optimize the use of available resources.

Make informed decisions, identifying all revenues and expenses (including operations, maintenance, renewal, replacement, and decommission) associated with asset decisions, including additions and deletions.

Asset Inventory

Maintain organizational accountability and responsibility for asset inventory, condition, use and performance.

LEARNING GOAL: Develop your policy

Activity

Take some time to develop your policy or review yours if you already have one. You're welcome to use the policy template provided.

If you have a policy, share with your neighbours!

Activity

Is this hard or easy? What will you to when you're back in your everyday work to make sure that this policy gets done?

You will be provided with an asset management policy template that follows this process. We will be walking through this together, with facilitated activities and discussion along the way that are designed to help you develop and test your policy.

Module 8 – Complete Post-Workshop Self-Assessment

> **After completing the module, participants will achieve the following learning goals:**
>
> - Reflect on overall progress as a group, identify key next steps, celebrate!
> - Complete post-workshop self-assessment

LEARNING GOAL: Reflect on overall progress as a group, identify key next steps, celebrate!

You've made it! You have dedicated a sum total of 4 days of group learning time, as well as time in between for check ins and homework.

Topics covered in this course include:

- Define AM
- Define human and financial resources required for AM
- Articulate current state and conditions for success
- Develop AM strategy
- Develop AM team TOR
- Communicate AM strategy to others
- Develop AM policy

Group Discussion

How have you advanced in AM over this course? What surprised you about this course? This cohort format?

What was good about this course? What could be improved?

What will help you in your immediate next steps after this course?

What tools/programs would be helpful to you?

Is this something you believe other municipalities would benefit from, and would you recommend others to participate?

What are your plans to move forward with AM?

Activity: Complete post-workshop self-assessment

1. What are all the ways you feel you/your organization has made progress throughout the duration of this course?

2. Review your self-assessment from the beginning of this course. Sometimes, as our understanding of asset management develops, the way we assess ourselves changes. Do you still agree with the assessment scores you originally assigned yourself?

3. Using the provided link and the hard copy readiness scale in your workbook, complete your post-workshop self-assessment.

▶ Start here

FCM's Asset Management Readiness Scale helps local governments measure progress on asset management in five **competency areas**. Each of these competencies is a building block. Together, the five building blocks form the practice of asset management.

These five competencies are key for sustainable service delivery. Asset management is not just about doing one thing — it is about building a robust understanding of asset needs and implementing good practices for caring for those assets. For a community to do this successfully, it must build skills and practices in each of the competency areas.

Definitions for key asset management terms can be found in the Key Concepts section of this document.

The five competencies

Policy and governance: By developing this competency, your organization is putting in place policies and objectives related to asset management, bringing those policies to life through a strategy and roadmap, and then measuring progress and monitoring implementation over time.

This competency helps you create the policy structure in your organization that lays out your asset management goals and how they will be achieved, leading to organizational alignment and commitment.

People and leadership: By developing this competency, your organization is setting up cross-functional teams with clear accountability and ensuring adequate resourcing and commitment from senior management and elected officials to advance asset management.

Asset management requires integration of multiple perspectives. At a minimum, your asset management team should be a representation of people who understand finance, decision-making, and the planning and operations of each relevant service area. This competency helps you create and sustain connections across teams and build leadership in asset management.

Data and information: By developing this competency, your organization is collecting and using asset data, performance data and financial information to support effective asset management planning and decision-making.

This competency helps you improve your data management practices so that you have the information you need about your assets when you need it.

Planning and decision-making: By developing this competency, your organization is documenting and standardizing how the organization sets asset management priorities, conducts capital and operations and maintenance (O&M) planning, and decides on budgets.

This competency helps you implement asset management, by ensuring that asset management policies, objectives and information are consistently informing organizational plans.

Contribution to asset management practice: By developing this competency, your organization is supporting staff in asset management training, sharing knowledge internally to communicate the benefits of asset management, and participating in external knowledge sharing.

This competency helps you build your organization's overall asset management practice by ensuring that internal stakeholders are well-informed and that your organization stays current with, and contributes to, leading practices, training and education.

Start here   4

Activity

1. Refer to the FCM Asset Management Readiness Scale at the end of this section. As a group, think through each competency area and evaluate your community's current state.

Reflection:

Who else in your organization would have a relevant perspective to include in evaluating your current state on the Asset Management Readiness Scale?

Levels and outcomes

Each of the five competency areas is 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. **Each of these three outcome areas need to be achieved before a level has been achieved.** Referring to the outcomes described at each level can help you set goals and objectives, and design initiatives.

Outcome area A   **Outcome area B**   **Outcome area C**

The Asset Management Readiness Scale helps municipalities assess where they are and identify the areas they need to work on. Asset management is a journey and every community will be at a different stage in terms of which competencies they have developed, and which they have not yet focused on.

Learn more

FCM provides resources on asset management through the **FCM's website**.

Communities of practice are also great resources for additional asset management support. You can find a list of Canadian asset management communities of practice on the **Asset Management Canada website**.

Getting started

If your community is just getting started on asset management, and you're not sure how to get to Level 1 on the Asset Management Readiness Scale, we recommend you check out FCM's **The Building Blocks of Asset Management: A How-to Guide for Reaching Level 1 of the Asset Management Readiness Scale**.

Continual improvement

If your community's asset management practices are under way but you want to dig deeper into certain concepts or understand how asset management documents work together, we recommend FCM's **How to Develop an Asset Management Policy, Strategy and Governance Framework: Set Up a Consistent Approach to Asset Management in Your Municipality**, published on FCM's website in 2018.

Completing the Asset Management Readiness Scale for your community

Follow these steps to undertake the Asset Management Readiness Scale assessment for your community:

1. Bring together a cross-functional team of staff from the departments that are relevant to your asset management practices. The Asset Management Readiness Scale assesses the asset management practices across your whole organization — not just the practices related to one asset class. Therefore, it is important that a cross-functional team complete the Asset Management Readiness Scale, not one individual or one department.[1]

2. For each competency area, read through the descriptions of outcomes for each level. Make sure that everyone is on the same page about what they mean.

   You can start with the competency that resonates the most with your team. You do not need to go through the competencies in a specific order; they all work together.

3. Discuss your organization's current state in relation to each outcome and identify what has already been achieved.

4. Select the outcomes that describe where your organization is today. Use your outcome selections to determine your organization's level for the overall competency. You have completed a level once all outcomes for that level have been achieved. If you are still working on one or more of the outcomes for a level, select the previous level to indicate that you have fully achieved all outcomes in that level.

   If you are just getting started in a certain competency, select "Working on Level 1." If you're not sure how to start working on that competency, check out FCM's **The Building Blocks of Asset Management: A How-to Guide for Reaching Level 1 of the Asset Management Readiness Scale**.

5. Use the assessment page at the end of the Asset Management Readiness Scale to write down your levels for each competency area, document how you've achieved those levels, and identify potential actions for improving your organization's asset management practices.

You will get the most out of the Asset Management Readiness Scale by taking the time to work through it as a team and by thinking critically about where your organization is today. Assessing yourself at a lower level does not mean you are not managing your assets, only that you have work to do in formalizing your asset management program. Remember that this is a work in progress!

Over-assessing your organization's achievement will make it more difficult to understand where you should focus your efforts, resources and funding. It may also make it more difficult to identify areas of progress or communicate to staff and council the need for continued improvement in asset management.

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1 In some communities it may be appropriate to include knowledgeable council members in conducting this assessment.

Using the results

The results of your self-assessment on the Asset Management Readiness Scale can be used to support your community's asset management practices in several ways:

1. Identify priority areas of improvement to help you plan for staff time and resource allocation.

2. Design initiatives to improve asset management practices based on which outcomes you want to work on.

3. Track your progress over time so you know if your activities are helping you improve, or if you need to make some adjustments.

4. Report on the achievement of outcomes to a variety of stakeholders: the internal team, CAO, council, FCM and other funders.

5. Use the shared language of the Asset Management Readiness Scale to talk to other municipalities about where they are and what they did to get there.

Planning for improvement

Each organization's progress in the competencies will depend on a unique group of factors. There is no need to progress through each competency to the same level. You may currently be much further along in some competencies than in others.

Additionally, your municipality may choose to aim for higher levels in some competencies than in others. For example, your community may aspire to reach Level 3 in data and information, Level 4 in planning and decision-making and Level 2 in policy and governance. Keep in mind that Level 4 of the Asset Management Readiness Scale is roughly aligned with the requirements of the ISO 55000 standard — which is a significant accomplishment.[2] It may not be necessary for your municipality to achieve the higher levels in the scale to meet the needs of your community.

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2   Note that ISO 55000 has specific content, documentation, and review requirements that are not always explicitly included in this scale. For example, ISO 55000 has specific requirements on what information needs to be included in a policy, strategy and asset management plan. It also includes specific requirements around continuous improvement. If you are pursuing the ISO 55000 standard, you should refer directly to the ISO 55000 requirements.

Asset Management Readiness Scale

Policy and governance

By developing this competency, your organization is putting in place policies and objectives related to asset management (AM), bringing those policies to life through a strategy and roadmap, and then measuring progress and monitoring implementation over time.

Outcome areas	Outcomes: Select the outcomes that your organization has achieved.				
	Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**
A **Policy and objectives**	☐ Senior management is committed to formalizing an **AM program**.	☐ We have drafted an **AM policy**. ☐ Senior management and council have endorsed the **AM policy**.	☐ We are starting to use our **AM policy** to guide our actions.	☐ We manage assets and services in accordance with our **AM policy** and organizational objectives.	☐ We continue to validate and refine our corporate, service and AM objectives based on the evolving needs of our community.
B **Strategy and roadmap**	☐ We have identified the benefits that we want AM to deliver, and the benefits support organizational objectives.	☐ We have a strategy for our **AM program**. ☐ We have a draft **roadmap** that outlines our approach for the next 1 to 3 years.	☐ We have a **roadmap** that details the actions for implementing our **AM strategy** over the next 3 to 5 years.	☐ We are achieving our **AM policy** objectives. The necessary workflows, documents, and reporting tools are in place. ☐ We update our **roadmap** to address evolving needs.	☐ We follow our **roadmap** and continually improve our AM practices. ☐ We document improvements to our AM practices.
C **Measurement and monitoring**	☐ We have identified short-term actions that will demonstrate early progress on AM.	☐ We are collecting baseline data on our current AM practices.	☐ We have established performance measures to monitor our asset management progress, outcomes, and the benefits to our community.	☐ We use performance measures to monitor AM progress, outcomes, and benefits.	☐ We monitor performance and use the feedback to prioritize and make ongoing refinements and improvements to AM practices.

Readiness level: You have achieved a readiness scale level when your organization can demonstrate achievement of all outcomes for that level.

Readiness level	Working on Level 1	Com-pleted Level 1	Completed Level 2	Completed Level 3	Completed Level 4	Completed Level 5
	☐	☐	☐	☐	☐	☐

People and leadership

By developing this competency, your organization is setting up cross-functional teams with clear accountability and ensuring adequate resourcing and commitment from senior management and elected officials to advance asset management.

Outcome areas	Outcomes: Select the outcomes that your organization has achieved.				
	Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**
A Cross-functional teams	☐ We have identified the representation we need on our cross-functional **AM team**.	☐ We have a cross-functional **AM team*** that guides the planning and implementation of our **AM program**.	☐ Our **AM team*** works within our organization to lead, communicate, and support AM improvements and organizational changes.	☐ Our **AM team*** is permanent and tasked with guiding and supporting AM across the organization on an ongoing basis.	☐ Our **AM team*** guides and supports the ongoing improvement of AM within the organization.
B Accountability	☐ We have a champion who has been tasked with planning for our **AM program**.	☐ Our **AM team*** has a documented mandate to develop our **AM program**, which is outlined in a terms of reference and a one- to three-year **roadmap**. ☐ Our **AM team** is accountable to senior management and council.	☐ Our **AM team*** is accountable for implementing our **AM program**. ☐ AM roles and responsibilities are included in staff job descriptions.	☐ We have operationalized AM roles and responsibilities across our organization.	☐ We document changes to AM roles and responsibilities as needed to support our evolving requirements.
C Resourcing and commitment	☐ Council knows that resources must be dedicated to exploring the requirements for **AM** and for drafting an **AM roadmap**.	☐ Council demonstrates buy-in and support for AM and allocates resources (funding or staff time) to further develop the **AM program**.	☐ Council champions AM as a core business function and has approved funding to continue **AM roadmap** activities.	☐ Council funds ongoing AM monitoring and enhancement.	☐ The **AM team** measures and monitors progress. ☐ Council demonstrates commitment to ongoing improvement of AM practices.

Readiness level: You have achieved a readiness scale level when your organization can demonstrate achievement of all outcomes for that level.

Readiness level	Working on Level 1	Com-pleted Level 1	Completed Level 2	Completed Level 3	Completed Level 4	Completed Level 5
	☐	☐	☐	☐	☐	☐

* Note: Larger organizations may have both an AM team responsible for implementation and an AM steering committee to provide direction and oversee the work. Smaller organizations may group these functions together. This outcome may be better suited to an AM team or an AM steering committee, depending on the organization. In some small communities the AM team may be as few as two people.

Data and information

By developing this competency, your organization is collecting and using asset data, performance data and financial information to support effective asset management planning and decision-making.

	Outcomes: Select the outcomes that your organization has achieved.				
Outcome areas	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
A **Asset data**	☐ We have **asset inventory data**, including approximate quantities of assets within most asset groups. ☐ We have some anecdotal information on asset condition. Some age information exists.	☐ We have a **basic inventory** of most **critical assets**, including information on general asset properties such as size, material, location and installation date. ☐ We are moving our data to a centralized location for use by the **AM team** (note: this does not require AM software). ☐ We have defined **critical assets** and have some information on asset condition for these assets.	☐ We have a consolidated, **basic inventory** of all assets. ☐ We have defined life cycle investment requirements for **critical assets**. ☐ We have standardized condition rating systems defined for most asset groups. ☐ We have asset condition information on all **critical assets**.	☐ We have expanded **inventory** data for some assets ☐ We have evaluated the life cycle investment requirements associated with **critical assets**. ☐ We update data according to cycles defined in our **AM plans** or **strategy**.	☐ We have expanded **inventory data** for most assets. ☐ We have evaluated the life cycle investment requirements associated with most assets.
B **Performance data**	☐ We have informal or anecdotal approaches for measuring asset or service performance.	☐ We have some information on performance of **critical assets**, collected from a variety of sources.	☐ We have defined **level of service** measurements for some service areas. ☐ We have captured data on current **level of service** performance for some service areas. ☐ We have reviewed service levels and asset performance with council.	☐ We have defined **level of service** measurements for critical service areas. ☐ We communicate the results from our **level of service** measurement program to staff and council regularly.	☐ We have defined **level of service** measurements for most or all service areas. ☐ We continually improve how we collect data on **level of service** performance.

Outcome areas	Level 1	Level 2	Level 3	Level 4	Level 5
Financial information	☐ We have **financial information** on our assets, supporting minimum PS-3150 reporting requirements.*	☐ We have major capital renewal and operating & maintenance (O&M) expenditure data for some assets. ☐ We have a strategy to link AM and **financial information**.	☐ We have capital (new and renewal) and O&M expenditure data for most assets. ☐ We have linked AM and **financial information** for all **critical assets**. ☐ We can demonstrate the gaps between forecasted infrastructure needs and current spending levels.	☐ We understand the cost of sustaining current **levels of service** for all **critical assets**.	☐ We understand the trade-offs between investment and the **level of service** we deliver and use this to optimize our financial plans.

Readiness level: You have achieved a readiness scale level when your organization can demonstrate achievement of all outcomes for that level.

Readiness level	Working on Level 1	Com-pleted Level 1	Completed Level 2	Completed Level 3	Completed Level 4	Completed Level 5
	☐	☐	☐	☐	☐	☐

* PS-3150 is the Public Sector Accounting Board's standard guiding the treatment of tangible capital assets.

Planning and decision-making

By developing this competency, your organization is documenting and standardizing how the organization sets asset management priorities, conducts capital and operations and maintenance (O&M) planning, and decides on budgets.

Outcome areas	Outcomes: Select the outcomes that your organization has achieved.				
	Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**
A **Documentation and standardization**	☐ Our asset planning approaches vary across the organization.	☐ Our departments follow a similar but informal asset planning approach. ☐ We evaluate investment needs and priorities based on a mix of structured and ad-hoc practices and criteria.	☐ We have a structured asset planning approach, but application is inconsistent. ☐ We set priorities using criteria based on organizational goals and objectives.	☐ We employ a consistent structured asset planning approach for each of our **critical services**. ☐ We set priorities using criteria that are fully aligned with our organizational goals and objectives.	☐ We employ a consistent structured asset planning approach for all services. ☐ We adapt our planning approach and criteria to align with evolving organizational goals and objectives.
B **Asset management plans**	☐ Our approach to asset renewal focuses on reacting to basic needs (e.g. growth, regulations and known problems). ☐ We evaluate priorities based on available information, staff experience, and input from council and management.	☐ We have draft **AM plans** for some asset classes, with forecasted financial needs based on estimated data.	☐ We have **AM plans** for **critical services**, based on a mix of estimated and actual data. ☐ Our **AM plans** include available information about **level of service** (current and target) and **risk** management. ☐ Our **AM plans** identify short-term issues and priorities.	☐ We have **AM plans** for most services based on actual data. ☐ Our **AM plans** include basic needs forecasting and **risk** management strategies for **critical assets**. ☐ Our **AM plans** are based on both short- and long-term issues and priorities. They balance short-term service objectives with longer-term goals and **risks**. ☐ We keep our **AM plans** up to date through normal business.	☐ We have **AM plans** for all services based on actual data. ☐ Our individual **AM plans** are integrated across services. ☐ Our **AM plans** include needs forecasts and **risk** management strategies for most assets. Plans address **risks** to both service and business goals.

Outcome areas	Level 1	Level 2	Level 3	Level 4	Level 5
Budgets and financial planning	☐ We prepare annual capital and operating budgets based on historical values. ☐ We deal with new needs reactively, as they occur.	☐ We prepare annual capital and operating budgets based on a mix of historical values and new priorities.	☐ We prepare an annual capital budget based on an annual assessment of current needs. ☐ We have a 3-year **capital plan** that addresses short-term issues and priorities.	☐ We prepare annual needs-based capital and operating budgets that are based on an annual assessment of **risks** and current needs. ☐ We have a 5-year **capital plan*** and update it annually. ☐ We update our **long-term financial plan** (at least 10-year) annually and understand the risks associated with our investment gap.	☐ We prepare multi-year needs-based capital and operating budgets that are based on our short- and mid-term needs. ☐ We take a structured approach to address in-cycle changes.

Readiness level: You have achieved a readiness scale level when your organization can demonstrate achievement of all outcomes for that level.

Readiness level	Working on Level 1	Completed Level 1	Completed Level 2	Completed Level 3	Completed Level 4	Completed Level 5
	☐	☐	☐	☐	☐	☐

* Communities may benefit from long-term capital plans that extend beyond five years to ten years or more.

Contribution to asset management practice

By developing this competency, your organization is supporting staff in asset management training, sharing knowledge internally to communicate the benefits of asset management, and participating in external knowledge sharing.

	Outcomes: Select the outcomes that your organization has achieved.				
Outcome areas	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
A **Training and development**	☐ Our AM training and development approach is informal and largely driven by the personal initiative of staff. ☐ Some staff conduct targeted research, seeking out basic information on AM concepts and techniques.	☐ Our AM training and development requirements are defined by management based on short-term needs. ☐ Selected staff are trained on basic AM concepts. ☐ Council has opportunities to increase their understanding of AM concepts.	☐ We provide all staff with basic AM awareness training. ☐ Some staff undergo training on advanced AM concepts specific to their roles and responsibilities. ☐ Staff and council are able to communicate the value of AM in their own words.	☐ We define AM knowledge and skill requirements. A training plan is in place for all positions. ☐ Council, management and staff receive role-appropriate AM training to establish needed capacity across the organization.	☐ We train select staff members as internal experts to support the ongoing development of organizational capacity. ☐ Proactive, role-based training serves as a support for career development and succession planning.
B **Internal communication and knowledge sharing**	☐ We are aware of the need to mitigate the risk of losing information held in the minds of long-term staff.	☐ We mitigate the risk of losing information held in the minds of long-term staff, through improved record keeping.	☐ A culture of knowledge sharing is emerging internally, supported by official initiatives. ☐ We collect and maintain AM knowledge resources. ☐ We communicate the benefits of AM internally to staff and council.	☐ A culture of knowledge sharing exists and is supported by a mix of formal and informal initiatives. ☐ We disseminate AM knowledge resources within the organization.	☐ We capture AM knowledge and it flows freely throughout the organization. ☐ Staff leverage internal and industry knowledge and leading practice resources.

Asset Management Readiness Scale   **14**

Outcomes: Select the outcomes that your organization has achieved.					
Outcome areas	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
External communication and knowledge sharing	☐ We are investigating AM-related organizations and resources.	☐ Staff or elected officials attend AM-related events. ☐ We share basic information on current capital projects with the public.	☐ We are members of one or more AM organizations and actively share our AM experience. ☐ We share basic information on our assets, the services we provide, and future needs with the public.	☐ We are actively involved in AM organizations and present at AM events. ☐ We share information with our peers on our experience, innovations and lessons learned. ☐ We rely on the data from our **AM program** to explain decisions to the public.	☐ We are a thought leader on AM within the municipal sector. ☐ We are active in coaching others to improve the overall body of AM knowledge. ☐ We communicate the benefits of AM to the public.

Readiness level: You have achieved a readiness scale level when your organization can demonstrate achievement of all outcomes for that level.

Readiness level	Working on Level 1	Com-pleted Level 1	Completed Level 2	Completed Level 3	Completed Level 4	Completed Level 5
	☐	☐	☐	☐	☐	☐

Source: Government of Nunavut

Glossary

Asset: A physical component of a system that enables a service, or services, to be provided.

Asset life: The period from asset creation to asset end-of-life.

Asset life cycle: The stages involved in the management of an asset.

Asset management: A process of making decisions about how infrastructure is used and cared for in a way that manages current and future needs, considers risks and opportunities, and makes the best use of resources.

Asset management lens: Integrating asset management practices into decision-making. Specifically, thinking about what information is available, what additional information is needed, what trade-offs are being made, and what are the community's long-term goals and needs.

Asset management goals: the steps that should be taken to move towards defined asset management objectives.

Asset management plan: Documented information that specifies the activities, resources, and timescales required for an individual asset, or a grouping of assets, to achieve the organization's asset management objectives.

Asset management policy: Outlines an organization's commitment and mandated requirements for asset management.

Asset management roadmap: Step-by-step plan guiding the actions, responsibilities, resources, and timescales to implement the asset management strategy and deliver asset management objectives.

Asset management strategy: Outlines an organization's approach for implementing the asset management policy.

Asset management implementation plan: Direction, framework, and approach for implementing the asset management policy to support strategic objectives and sustainable and effective service delivery.

Asset management system: The set of policies, people, practices, and processes that are used in asset management. An asset management system is not a software program.

Asset portfolio: Assets that are within the scope of the asset management system.

Asset register: A database or document containing specific information about the assets owned or controlled by an organization.

Asset risk: The risk of an asset failing to perform the way you need it to (e.g. a pipe bursts).

Average annual life cycle investment (AALCI): The average annual investment needed to sustain an existing asset over its service life and replace or renew the asset once it reaches the end of its service life.

Level of service: Levels of service statements describe the outputs the organization intends to deliver to customers and other stakeholders. Levels of service typically relate to service attributes such as quality, reliability, responsiveness, sustainability, timeliness, accessibility and cost.

Life cycle costs: The total cost of an asset over its life, including capital, operation, maintenance, renewal, and decommissioning costs.

Likelihood: The probability that an event might happen.

Maintenance: Any activity performed on an asset to ensure it continues to deliver an expected level of service until it is scheduled to be renewed, replaced, or disposed of.

MAMP Readiness Scale: A tool developed by the Federation of Canadian Municipalities that guides the assessment of a municipality's current asset management practices and can serve as a structure for evaluating your progress as you develop a strong asset management program and approach.

National Round Table for Sustainable Infrastructure: The NRTSI was formed in 2015 as an expert resource on infrastructure; a non-partisan body that facilitates the understanding of infrastructure needs and helps to define issues of national priority as well as identify and/or develop and disseminate tools to address these issues.

Objectives: Objectives are statements that articulate your vision and guide your approach to achieving your vision through strategy

Operation: The act of utilizing an asset. Typically consumes materials and energy.

Renewal (or asset renewal): The replacement or refurbishment of an existing asset (or component) with a new asset (or component) capable of delivering the same level of service as the existing asset.

Renewal investment: The total investment needed to replace or renew existing assets that have reached the end of their service life.

Risk: The chance that conditions or events may occur to cause an asset to fail.

Risk tolerance: The capacity to accept a level of risk, dependent on the likelihood and severity of consequences, and the existence of other priorities that require more immediate investment.

Strategic risk: The risk of a change occurring that impedes your ability to achieve your overarching strategic goals (e.g. hot, dry conditions put pressure on your ability to provide water service).

Sustainable service delivery: Ensuring that municipal services are delivered in a socially, economically, and environmentally responsible way, and that decisions today do not compromise the ability of future generations to meet their own service needs.

Appendix – Sample Policies

Policy #1

PURPOSE

To set guidelines for implementing consistent Asset Management processes within the municipality. The following terms are used within this policy and are defined as follows:

Asset Management: an integrated, lifecycle approach to effective stewardship of infrastructure assets to maximize benefits, manage risk and provide satisfactory Levels of Service to the public in a Sustainable manner. The majority of the services that the municipality provides are related to Asset Management.

Engineered Assets: assets that have been constructed and are owned by the municipality (e.g., watermains, roads, streetlights, buildings), land that is owned by the municipality and supports assets (e.g., land under roads or buildings), or land that is undeveloped and owned by the municipality. These assets must be operated, maintained, managed, and, with the exception of land, ultimately replaced as they wear out.

Level of Service: the service level delivered to the public by the municipality. This can take the form of the selection of services that are provided (e.g., bike lanes, doggie bags, or a new pool), the standard of infrastructure in place (e.g., concrete sidewalks versus gravel paths), or the standard to which an asset is maintained (e.g., the frequency of scheduled curb sweeping). The desire of Council or the public for a particular Level of Service will directly affect utility fees or taxation.

Natural Assets: naturally occurring land or subsurface features which perform or support service delivery to the municipality (e.g., the aquifer, which filters and stores water, and the creeks, which convey and treat stormwater run-off). This category also includes artificial features that mimic naturally occurring features (e.g., ditches, ponds and wetlands). If these assets did not exist, Engineered Assets would be required to provide these services. Natural Assets must be operated and maintained but, if managed appropriately, require no replacement.

Risk: analysis of the 'likelihood' and the 'consequences' of a given event. Establishing the risk associated with lower infrastructure performance due to Levels of Service or postponement of asset replacement will identify system vulnerabilities and assist in prioritizing work. For example, puddles on a gravel walkway may have a high likelihood of occurring but the consequences are not significant. In comparison, an ageing sanitary main may have a high likelihood of failure and the consequences of a break may be significant.

Sustainable: meeting the needs of the present without compromising the ability of future generations to meet their own needs. In relation to Asset Management a sustainable approach takes into consideration the current and future benefits and costs of existing and new assets or services.

OBJECTIVE

To ensure adequate provision is made for operations, maintenance and long-term replacement of major Engineered and Natural Assets by:

2.1   Maintaining assets in the most natural, energy-efficient and reliable manner that cost the least to operate over the life cycle of the asset;

2.2   Ensuring that the municipality's services and infrastructure are provided in a Sustainable manner, with the appropriate Levels of Service to all users within the municipality;

2.3   Managing Engineered and Natural Assets by implementing appropriate Asset Management strategies and appropriate financial resources for those assets;

2.4   Fostering an environment where all municipal employees take an integral part in overall management of municipal assets by creating and sustaining Asset Management awareness throughout the organization through training and development;

2.5   Ensuring resources and operational capabilities are identified and responsibilities for all areas of Asset Management are appropriately assigned;

2.6   Continually seeking opportunities for improving efficiencies in operations, maintenance and asset replacement practices;

2.7   Demonstrating transparent and responsible Asset Management processes that align with established best practices; and

2.8   Meeting legislative requirements for Asset Management.

BACKGROUND

3.1.1   Council's vision and goal for the community includes providing a safe, livable, Sustainable and economically vibrant community underpinned by well managed and maintained infrastructure assets. These assets include but are not limited to efficient transportation networks, an economical and reliable water distribution network, a safe and reliable sewage collection system, reliable information technology systems, appropriate fleets, and accessible parks, recreation and civic facilities.

3.1.2   The municipality is committed to implementing a systematic Asset Management methodology in order to apply appropriate Asset Management best practices across all areas of the organization. This includes ensuring that assets are planned, created, operated, maintained, renewed and disposed of, where appropriate, in accordance with the municipality's Levels of Service priorities.

3.1.3   As of December 1, 2017, the municipality owns and operates approximately $20 million (historic costs) of Engineered Assets to support its core business of delivery of service to the community. Although the equivalent values have not been established, the municipality also recognizes the additional and significant contribution made by Natural Assets in the delivery of service to the community.

3.1.4   Asset Management is the core business of the municipality and appropriate Asset Management is required to achieve our strategic service delivery objectives.

3.1.5   Adopting Asset Management principles will assist Council in achieving its strategic plans and long term financial objectives.

3.1.6   A strategic approach to Asset Management will ensure that the municipality delivers the appropriate Level of Service through its assets.

PRINCIPLES

3.2.1   A consistent Asset Management Strategy will be used for implementing systematic Asset Management and appropriate Asset Management best practices throughout all departments of the municipality.

3.2.2   Levels of Service will continue to be determined and refined in consultation with the community.

3.2.3   All relevant legislative requirements together with social, economic and environmental impacts are to be taken into account in Asset Management.

3.2.4   Asset Management principles will be integrated within existing planning and operational processes.

3.2.5   Natural Assets are recognized by Council as performing essential service delivery and will be identified and managed in a similar manner as Engineered Assets.

3.2.6   Asset Management plans will be developed for major service/asset categories. The plans will be informed by community consultation and financial planning and reporting.

3.2.7   An inspection regime will be used as part of Asset Management to ensure agreed service levels are maintained and to identify asset renewal priorities.

3.2.8   Asset renewals and Levels of Service defined in adopted Asset Management plans and long term financial plans will form the basis of annual budget estimates with the service and risk consequences of variations in defined services levels and budget resources detailed in budget documentation.

3.2.9   Asset renewal plans will be prioritized and implemented progressively based on agreed Levels of Service and the effectiveness of the current assets to provide that Level of Service.

3.2.10 Systematic and cyclical reviews will be applied to all asset classes and are to ensure that the assets are managed, valued and depreciated in accordance with appropriate best practices.

3.2.11 Future life cycle and replacement costs for all asset categories will be established with a goal to be completed by 2019.

3.2.12 Life cycle costs will be reported and considered in all decisions relating to new services and asset classes and upgrading of existing services and asset classes as soon as they are established.

3.2.13 Training in asset and financial management will be provided for relevant staff.

SCOPE

This policy applies to all municipal activities.

LEGISLATION

All aspects of Asset Management within the municipality shall be conducted in accordance with applicable legislation.

RELATED DOCUMENTS

Asset Management Strategy and associated Asset Management Plans (to be developed).

RESPONSIBILITIES

Asset Management is a corporate responsibility that involves all staff and members of Council in the effective implementation of Sustainable service delivery.

7.1 Council is responsible for:

7.1.1   adopting this Asset Management Policy and future updates;

7.1.2   allocation of resources;

7.1.3   providing high level oversight of the delivery of the organization's Asset Management strategy; and

7.1.4   ensuring that organizational resources are appropriately utilized to address the organization's strategic plans and priorities.

7.2 The Chief Administrative Officer has overall responsibility for:

7.2.1   developing Asset Management strategies, plans, and procedures, in conjunction with the management team;

7.2.2   reporting to Council and updating the community regularly on the status, effectiveness, and performance of work related to the implementation of this Asset Management policy; and

7.2.3   considering and incorporating Asset Management in all other corporate plans (e.g. Strategic Plans).

7.3 The Director of Engineering will be responsible for:

7.3.1   ensuring that the most up to date information on the municipality's Natural and Engineered Assets is gathered and maintained in the municipality's Geographical Information System (GIS) as well as other software and databases;

7.3.2   using industry standard unit costs and service lives for all infrastructure components, taking into account variations due to unique local conditions;

7.3.3   establishing infrastructure replacement strategies through the use of full life cycle costing principles;

7.3.4   establishing operations and maintenance policies to deliver Levels of Service and extending the useful life of assets;

7.3.5   where possible, integrate engineering and financial asset requirements into a single asset register; and

7.3.6   in consultation with other Directors, prepare Asset Management Plans and strategies for each asset type.

7.4 The Director of Public Works and the Director of Parks and Cultural Services will be responsible for:

7.4.1   maintaining and managing infrastructure assets at defined levels; and

7.4.2   conducting ongoing reviews and implementing changes to realize efficiencies in operations and maintenance practices.

7.5 The Director of Planning will be responsible for:

7.5.1   ensuring that standards, goals and objectives in the Official Community Plan and other bylaws, policies and plans are consistent with Sustainable Asset Management principles;

7.5.2   providing Council with the full life-cycle costing impacts of proposed community amenities and variances to development standards; and

7.5.3   in consultation with other Directors, determine if the projected revenues from incremental as well as full build out of the municipality, as outlined in the Official Community Plan, will support over time the assets necessary to provide established Levels of Service to the Community.

7.6 The Director of Finance will be responsible for:

7.6.1   planning financially for the appropriate level of maintenance for assets to deliver established Levels of Service with the goal to extend the useful life of municipal assets;

7.6.2   establishing financial plans for consideration by Council that will ensure stable, long-term funding for replacement, renewal and/or disposal of assets;

7.6.3   valuing and depreciating assets in accordance with appropriate best practices; and

7.6.4   integrating financial reporting requirements with the municipality's asset inventory register.

REVIEW DATE

This policy has a life of 4 years. It will be reviewed in 2019.

Policy #2

POLICY OBJECTIVE

The purpose of this policy is to ensure that the municipality implements asset management practices that enables a coordinated, cost effective and organizationally sustainable approach across the municipality to:

- Achieve the Council's vision of "a vibrant community which values a high quality of life, balancing rural heritage with a diverse economy"

- Ensure long-term sustainability and to demonstrate fiscal stewardship.

SCOPE

This policy applies to the lifecycle management activities of physical assets that are owned by the municipality, which may have a material impact on the capital and/or operating budget. This policy is the bridge between the Organizational Strategic Plan and the Asset Management Strategy.

DEFINITIONS

Asset means a physical object that is a significant economic resource and provides the delivery of a program or service.

Asset Management means the process of making decisions about the use and care of infrastructure to deliver services in a way that considers current and future needs, manages risks and opportunities, and makes the best use of resources.

Life-cycle means the time interval that commences with the identification of the need for an asset and terminates with the disposal of the asset.

Tangible Capital Asset as per the municipality's Tangible Capital Asset (TCA) Policy ADM-57 means non-financial assets having physical substance that are acquired, constructed or developed, including land, land improvements, roads, buildings, vehicles, equipment, water mains, sewer mains, and capital assets acquired by capital lease or through donation, which meet or exceed thresholds set out within that policy.

Asset Maintenance means the regular activities conducted to keep an asset functioning in its intended state. Maintenance activities are not capital investments.

Asset Renewal means the refurbishment or major maintenance of an asset that represents a capital investment and substantially extends the life of an asset.

Asset Replacement means the replacement of an asset that represents a capital investment.

Long-term Financial Plan means a plan that documents the process of aligning financial capacity with long-term service objectives.

PRINCIPLES

Forward Looking: The municipality shall operate in manner that takes into account the financial effects on future generations and considers changing community circumstances and external economic risks to ensure a vibrant community for generations to come.

Operations Efficiency: The municipality will manage the assets in a manner that ensures that public resources are put to the best possible use and that full cost of asset ownership is considered in decision making.

Service: The municipality shall operate and manage the assets to ensure service delivery to the community in a manner that considers quality of life, long term costs and risks.

POLICY STATEMENTS

Asset Acquisition: Decisions to acquire new assets will be based on an understanding that the asset supports the long term goals of the community and that the full life cost of ownership has been considered and incorporated into future operating and financial plans.

Asset Maintenance: For each asset, efficient maintenance strategies will be implemented that considers sustaining the desired service levels and seeks to minimize risk and the life cycle cost of ownership.

Asset Renewal/Replacements: Decisions to renew or replace an asset will consider risk (probability and consequences of asset failure), life cycle cost and the impacts to the level of service.

Funding for Asset Renewals/Replacements: A long term financial plan will be maintained which considers the renewal and replacement of existing infrastructure and the impact to taxation and user fees. The timing for asset renewal/replacement will balance risk with cost and levels of service.

The long term financial plan will identify how asset renewals/replacements will be financed, whether be it through current revenues, reserve funds or borrowing.

Asset Disposal: The utilization and function of all assets will be considered periodically together with the cost of operating and maintaining. Assets will be disposed of where it is determined that community resources can be applied to other uses with greater benefit.

RESPONSIBILITIES

Council

- Approves Asset Management strategies and plans, as required, alongside strategic planning
- Approves asset funding through the annual budget

Corporate Asset Management Steering Committee

- Is appointed by Senior Management and consists of a minimum of one representative from each department with asset ownership as well as one representative of the Planning Department.
- Provides a forum for discussion of asset management strategy, integration and best practices
- Leads the development of corporate asset management tools and practices and oversees their application across the organization

Departmental Asset Management Owners

- Responsibility for Asset Management functions
- Create and implement Asset Management Strategies
- Create and implement Asset Management Plans
- Liaises with Corporate Finance on financial matters

Corporate Finance

- Provides financial direction to the departments
- Responsible for the stewardship of the financial assets and records

REFERENCES

Municipal TCA

Municipal Strategic Plan

Municipal Vision/Guiding Principles

Building Community Resilience through Asset Management

Policy #3

PURPOSE

To provide the framework for the development of the municipality's Asset Management capability that supports the delivery of sustainable community services through the management of its assets.

POLICY

The following actions will help guide the municipality as it develops its Asset Management Plans:

- Determine and maintain the replacement value of assets
- Determine and maintain the condition of assets and their expected service life
- Maintain and manage assets at defined levels to support public safety, and Council's Mission
- Establish optimum asset renewal and replacement strategies that are informed through the use of life cycle costing and risk analysis
- Plan financially for the defined level of service
- Plan for and provide stable long term funding to renew and/or replace assets including their de-commissioning
- Consider the effects of climate change
- Report to Council regularly on the status and performance of the work related to asset management.

POLICY PRINCIPLES

The key principles of asset management are outlined as follows:

The organization shall:

1. Make informed decisions, identifying all revenues and expenses (including operations, maintenance, renewal, replacement, and decommission) associated with asset decisions, including additions and deletions.
2. Articulate and evaluate trade-offs, and record the basis for a decision.
3. Integrate corporate, financial, business, technical and budgetary planning for assets.
4. Maintain organizational accountability and responsibility for asset inventory, condition, use and performance.
5. Consult with customers.
6. Define and articulate asset performance, maintenance and replacement standards and outcomes.
7. Optimize the use of available resources.
8. Manage assets sustainably considering the municipality's environmental, social and economic responsibilities and the life cycle costs of assets.
9. Consider the effects of climate change in the design, renewal and replacement of assets.
10. Consider the criticality of the services provided and minimize the risks of disruption.
11. Develop and demonstrate improvement towards best practices.
12. Report on the performance of its Asset Management Program.

CITY OF PRINCE GEORGE
POLICY

Asset Management

City Government – Sustainable Infrastructure, Sustainable Fiscal Management and
Organizational Excellence

Approved by Council: December 03, 2012

Purpose:

To provide the framework for the development of the City's Asset Management capability that
supports the delivery of sustainable community services through the management of its assets.

Policy:

The following actions will help guide the City as it develops its Asset Management Plans:

- Determine and maintain the replacement value of assets
- Determine and maintain the condition of assets and their expected service life
- Maintain and manage assets at defined levels to support public safety, and Council's Mission
- Establish optimum asset renewal and replacement strategies that are informed through the use of life cycle costing and risk analysis
- Plan financially for the defined level of service
- Plan for and provide stable long term funding to renew and/or replace assets including their de-commissioning
- Consider the effects of climate change
- Report to Council regularly on the status and performance of the work related to asset management.

Asset Management

Policy Principles

The key principles of asset management are outlined as follows:

The organization shall:
1. Make informed decisions, identifying all revenues and expenses (including operations, maintenance, renewal, replacement, and decommission) associated with asset decisions, including additions and deletions.
2. Articulate and evaluate trade-offs, and record the basis for a decision.
3. Integrate corporate, financial, business, technical and budgetary planning for assets.
4. Maintain organizational accountability and responsibility for asset inventory, condition, use and performance.
5. Consult with customers.
6. Define and articulate asset performance, maintenance and replacement standards and outcomes.
7. Optimize the use of available resources.
8. Manage assets sustainably considering the City's environmental, social and economic responsibilities and the life cycle costs of assets.
9. Consider the effects of climate change in the design, renewal and replacement of assets.
10. Consider the criticality of the services provided and minimize the risks of disruption.
11. Develop and demonstrate improvement towards best practices.
12. Report on the performance of its Asset Management Program.

Asset Management

Capital Asset Management Strategy 2016 – 2020

CITY OF
Selkirk
Where it all comes together

Table of Contents

Introduction

This strategy has been developed to fulfill the strategic gap identified by the City of Selkirk's *Creating Value from our Physical Assets* report which was prepared while the City developed its first asset registry database. While City Administration worked through the technical challenges of building the foundation for its Capital Asset Management Program (CAMP), it recognized that it required a guiding document to articulate the philosophical framework for the program. This articulation is rightfully the role of Council, the trustees of the City's assets.

This document has been created to define and clarify a broad vision and philosophical framework for the City's Capital Asset Management Program. Arising from this strategy the City will create governance and other policy tools which will refine, codify and implement the vision captured in these pages.

Asset Management Defined

According to Asset Management BC, 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 can be made, supporting sustainable service delivery.

In the context of the City of Selkirk, and for the purposes of this strategy, asset management is defined as the systematic practice of using human and financial resources to plan, source, construct, operate, maintain, renew and decommission infrastructure and equipment to sustainably deliver municipal services that manage risk, achieve regulatory requirements and meet the reasonable expectations of citizens.

Program vs Plan

While some municipalities have hired consulting firms to assist with the creation of an Asset Management "Plan", the City of Selkirk has determined that it would develop a Capital Asset Management "Program" internally. This small distinction in text represents a dramatically different philosophical approach to this work. Whereas a plan is time limited, having a definite beginning and ending, a program does not. Whereas a plan speaks to achieving a specific goal or outcome, a program speaks to achieving a set of enduring behaviours or practices.

Choosing to build a program, rather than just a plan, reflects the City's understanding that capital asset management must become a core function of the municipality. It reflects an understanding that the City must enact fundamental changes to its structure, its operation and even its organizational beliefs to maximize the benefits asset management offers.

Capital Assets vs Asset

The term capital asset management and asset management are often used interchangeably. The City of Selkirk chooses to use the term capital asset rather than simply asset, to provide a clear distinction between physical equipment and

infrastructure that is deemed "material", that is to say substantially valuable enough to include it in a comprehensive asset management program. For example, a truck is a capital asset but a torque wrench is not. Both are assets, and both should be protected and managed but the expense of including smaller, less valuable assets like a torque wrench in a robust asset management program would far outweigh the expected return.

For this strategy, asset management is generally used to refer to the overall practice, whereas capital asset management is used to reference the City's specific program and practices.

The Drivers of Change

Asset management, as a distinct and formal practice, has been a growing topic of discussion within the municipal sector for the past decade. For the City of Selkirk, this discussion began in 2011 with the final report of the City's Development Fee Taskforce where City administration was tasked with the development of a robust infrastructure funding model and the redevelopment of the City's financial reserve system to support the model.

The taskforce identified the significantly aged City infrastructure and the underfunded nature of the City's financial reserves as "a clear and present danger" to the City's sustainability.

As a long-established urban centre, the City of Selkirk has a significant amount of municipal infrastructure. Much of this infrastructure was constructed in the middle of the last century and is nearing the end of its designed service life.

With a declining population, stagnated tax base and aged infrastructure nearing the point of failure, the City recognized that the social and financial health of the municipality was in jeopardy.

Using data collected by the Province of Manitoba, basic financial analysis revealed that the City of Selkirk had some of the lowest valued municipal infrastructure of any City in Manitoba (See Figures 1 & 2 below).
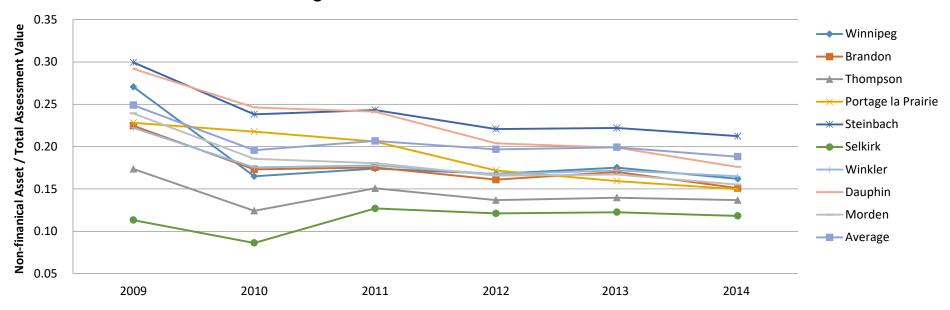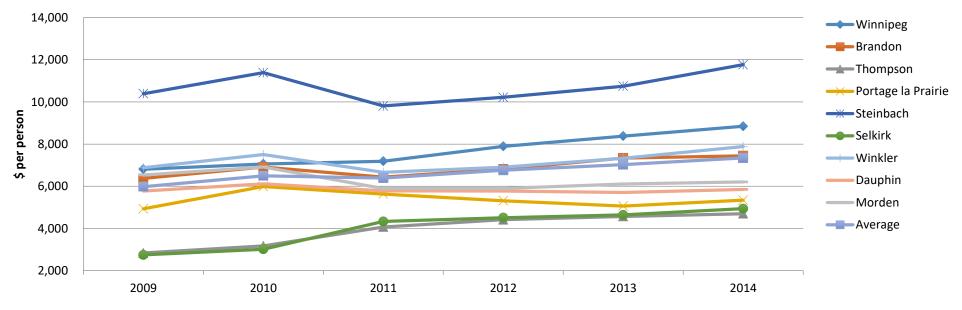
Figure 1: Non-Financial Assets to Assessment

Figure 2: Non-financial Assets per Capita

Asset Management is a Strategic Priority

Given the state of the City's infrastructure and the threat to the community sustainability, Council decided a dramatic change to the way the City manages its infrastructure was necessary. As such, Council included asset management in the City's Strategic Plan.

Under strategic priority 3B, the City is committed to ensuring adequate funding for all city-owned assets. This priority calls for the creation of a management plan that considers "Selkirk's long term needs for maintenance and renewal, and ensures adequate funds are set aside in reserves to cover the expected costs."

Under strategic priority 4A, the City is committed to more active management of its capital assets. This priority calls for the creation of a comprehensive asset management program and is the catalyst for this strategy.

Selkirk's Strategic Plan can be found at myselkirk.ca/city-government/city-council/selkirks-strategic-plan/

A Requirement of Funding

Beyond the City's own recognition of importance, the Government of Canada has identified Asset Management as a key deliverable of municipal government. In the most recent Gas Tax agreement with the Province of Manitoba, the Federal Government made the completion of an asset management plan a prerequisite for Manitoba municipalities seeking Gas Tax funding in 2018 and beyond.

Getting Started

In 2014, City administration undertook a preliminary review of the developing municipal asset management sector and included the creation of an asset registry in its 2015 business plan.

Throughout 2015, the CAMP project team, designed and built an asset registry database for a selection of core asset classes, including roads, sidewalks, buildings, water mains, and sewer mains. Each asset was identified, categorized, measured and had its condition evaluated. All of this data was collected and populated into the database.

Throughout this process, administration developed the internal understanding and capacity to complete this work. Tools, processes and practices were researched and documented to chronical the technical aspects of the program. The results of this effort are captured in the City's first CAMP report entitled *Creating Value From Our Physical Assets*. This report will form the foundation for the

development of formal capital asset management policies and procedures.

Moving Forward

Building off the work completed in 2015 and 2016, the City of Selkirk will implement the work outlined in this strategy to complete the City's Capital Asset Management Program.

Vision

"A city that, through the responsible management of its infrastructure, meets the needs of its citizens today without compromising its ability to meet the needs of its future citizens."

Key Objectives

Through the development and implementation of this strategy, the City seeks to achieve the following objectives which will help it deliver on its vision:

1. Establish a systematic and robust Capital Asset Management Program for the City of Selkirk.
2. Empower City Administration to establish policies, practices and procedures and to source and allocate the resources necessary, to maintain city infrastructure at standards set out by Council.
3. Be recognized as a Manitoba leader in the area of asset management.
4. Embed capital asset management and municipal sustainability into the daily operations of the City of Selkirk.

Guiding Principles

As the City implements this strategy it will encounter situations it did not anticipate and will be forced to make decisions that it did not contemplate. When faced with these unexpected "forks in the road", the City will depend on the following principles to help guide its path:

1. Municipal infrastructure should be constructed, maintained and decommissioned in a manner that ensures the social, environmental and economic sustainability of the City.
2. Municipal infrastructure must facilitate and deliver municipal services that meet the needs and reasonable expectations of citizens.
3. Capital asset management is a core municipal responsibility.
4. Leading practices and industry standards shall form the basis for capital asset management policy, procedures and practices.
5. Municipal infrastructure is the foundation for community economic development and the quality of life for all citizens.
6. Municipal infrastructure is a "common good" and therefore must be managed transparently allowing all citizens to objectively evaluate its condition and value.

Strategic Priorities

With finite resources available, it is important to recognize that successful implementation of a capital asset management program will require a focus on those policy choices that the organization believes will best deliver on the objectives of this strategy. The following are the City's capital asset management strategic priorities:

Build Staff Capacity

While it is possible to hire external consultants to undertake many asset management functions, the City of Selkirk chooses to train and develop the capacity of its internal human resources to build and manage its program. While this process is slower and more expensive in the short-term, it supports the deep integration of asset management and sustainability principles into the everyday operations of the City. This deep integration will make the program more effective, resilient to staff and governance changes, reduces the dependency on expensive consultants to maintain the program, and ensures the City's program benefits from the continuing evolution of this field in "real-time".

Develop a Culture of Sustainability

With robust asset management tools and a deep understanding of asset management practices and principles, the City will be better prepared to make decisions that promote the long-term sustainability of the community. From the governance level to the front-line employee, asset management processes encourage thinking beyond immediate needs and short-term solutions. The City of Selkirk chooses to consider the long-term social, environmental and economic impacts of its decisions.

Integrate Asset Management into Core City Operations

The City has a number of establish systems, programs and processes that constitute its operations. Rather than treat asset management as a special project, or the function of one department or of a particular role, the City chooses to weave asset management practices into the existing systems. Asset management will permeate business planning processes, human resource allocations, reporting and even Council decision making processes. This integration will ensure that capital asset management practices are applied consistently across the organization and that staff will take a collaborative approach to achievement of the program's objectives.

Ensure Transparency and Build Citizen Understanding

At its core, capital asset management will demand the City make decisions that strike balance between the immediate desires of the community with its long-term needs. These choices will sometimes be difficult and can create political

tension when the "right" decision is not the "popular" one. Asset management tools, used skillfully and effectively, can provide the City with solid data with which it can make responsible decisions. However, this data alone may not be enough to justify the decisions to citizens. While implementing its capital asset management program, the City will ensure its program is transparent and communicated clearly. Citizen understanding and buy-in is critical to ensuring that Council has the political latitude to make tough choices.

Consider Value, Not Just Price

In the past, many procurement or implementation decisions were made on the basis of the quoted price. Focusing on price alone ignores the long-term financial costs of operations and maintenance and the hidden, harder-to-quantify, social and environmental costs. The City of Selkirk chooses to broaden its decision making criteria to include, as much as practicable, life-cycle costing and triple bottom-line evaluations. Life-cycle costing will require that the City understands the costs of operations, maintenance and eventual replacement for any given decision. Triple bottom-line evaluations will require that the City attempts to understand the social and environmental costs and not just the economic ones.

Recognize the Value of Natural Assets

While most asset management plans and programs focus almost exclusively on assets designed, constructed and manufactured by humans, the City of Selkirk chooses to expand its focus to include its natural assets, those resources provided by the natural world that support the delivery of municipal services. The City chooses to consider and work actively to measure, evaluate and attend to the health of its natural assets such as its aquifer, its urban forest, its parks and the Red River. And where possible, the City chooses to use natural assets rather than construct engineered assets if they deliver the same or comparable municipal service.

Use Best Practices and Adopt a Continuous Improvement Ethic

The field of asset management is rapidly evolving within the Canadian municipal sector. As more and more municipalities adopt these practices, new ideas, processes, tools and concepts are being introduced. The City of Selkirk recognizes that it is a new entrant into an evolving field. On this new journey, the City finds that much of the path has been well worn. The City chooses to follow in the footsteps of leaders in this field – adopting the practices, processes and concepts they have used to establish their successful asset management systems. As the City moves forward it expects to find the path less worn and more difficult. The City chooses to invest in its people, processes and technology to

continue to improve our asset management program. The City will continue to push forward until its program is recognized as among the leaders in this field for a municipality of its size.

Maintain a Citizen Service Focus

When immersed in the technical aspects of asset management or when faced with the significant financial challenges ahead, it is easy to forget that the purpose for all of this work is the citizen's quality of life. Frequently the City will face difficult choices. Decision makers must always remember that the City maintains infrastructure to deliver important services to its citizens to promote their wellbeing and their quality of life.

As the program matures, the City chooses to represent its citizen focus by making its program transparent and giving citizens access to tools that help them understand the status of the infrastructure they depend on most. The City will find ways to engage citizens in the decision making process and it will incorporate citizen service measures into its key performance indicators.

Make More Strategic Infrastructure Choices

A critical part of the City's capital asset management program will be using the data it collects to make more strategic infrastructure decisions. From ensuring that City procurement choices reflect life-cycling costing, to staging

renewal projects to reduce waste and duplication, the City will make better, more long-term focused and cost–effective decisions. The City will also leverage its exposure to leading practitioners and adopt maintenance methods and renewal strategies that they identify as "best practices".

Improve Financial Preparedness

The long-term success of the City's capital asset management program depends on adopting a suite of aligned financial-practices that encourage the dedication of funds for infrastructure renewal and replacement. These practices must leverage the City's asset data, use predictive modeling, and be based on practices followed by sector leaders to ensure Council is confident that the challenging decision to defer the use of revenue for future works is prudent and sustainable. The City of Selkirk will realign its reserve system to support its capital asset management program and will identify savings targets that are driven by good asset data and reliable financial modeling.

Reduce and Manage Risk Better

As the City's infrastructure ages, the likelihood of failure increases. From a two hours interruption of water service due to a water-main break, to the mass cancelling of ice time resulting from an ice-plant breakdown at Selkirk Arena, failing infrastructure has serious negative impacts on

citizens. The City of Selkirk chooses to adopt asset management practices that identify infrastructure risk and offers cost-effective ways to avoid or mitigate the risk. As the program matures, effective risk assessments will allow the City to confidently balance the probability of risk against the optimal use of financial resources. That is to say, reasonably accept some risk when it makes fiscal sense. Good risk assessment and modelling will reduce the influence of unreasonable fear in decision making.

Adapt to a Changing Climate

Climate change is a reality that all Canadian communities, including Selkirk, must face. Preparing for, and adapting to, the anticipated extreme weather events and shifting climatic conditions must form an important part of both the City's emergency response plans and its asset management program.

As the City replaces aged infrastructure, or plans for the installation of new infrastructure, it must consider the new demands of a changing climate. The City will use climate modelling to better determine the capacity of future infrastructure and will seek cost-effective methods of enhancing the performance of existing assets to meet these future demands.

Storm water management systems must be prepared to withstand greater amounts of precipitation in shorter

periods of time. Ground water resources must have the capacity to supply the City with potable water despite extended drought conditions, and City facilities must be prepared to shelter more citizens during extreme storm and temperature events.

Improve Accountability

Today, like many municipalities without asset management programs, City asset investment decisions are governed by a number of factors including, but not limited to, political impact, the knowledge and experience of management, the quoted price and the perceptions of affordability. These factors are subjective, often lacking a firm grounding in data. Accountability for these decisions is often limited to

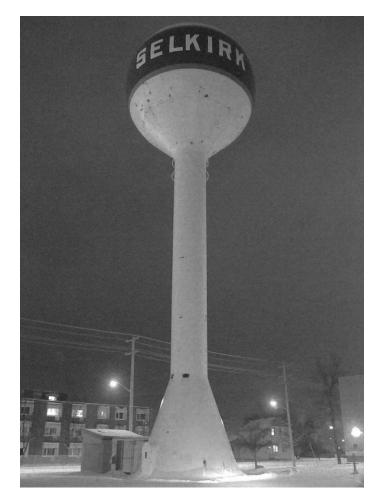superficial measures such as the absence of asset failure and citizen perception of value at tax time.

With a robust and transparent asset management program, the City of Selkirk will become more accountable to the citizens it serves. Through the use of high-quality asset data and industry leading modelling, decisions will become more objective and less dependent on political priorities or limited by common human biases.

The City of Selkirk chooses to use key performance indicators and transparent decision making methods which will allow citizens to track the performance of the City's infrastructure and give them a measuring stick against which they can evaluate Council's investment decisions. Using these same tools, Council will be better equipped to evaluate Administration's investment recommendations and the operating practices it employs.

As the program matures, the City's capital budgeting will shift from an annual to a longer-term focus. It will become more predictable with fewer unforeseen projects and will generate more consensus as prioritization becomes less subjective.

Grow Better

Selkirk is growing. Development is breathing new life into our downtown, into our older residential neighbourhoods and throughout our business community. But not all growth is good. The City of Selkirk chooses to learn from the challenges

that urban centres across North American have been presented as a result of growth. Using high-quality data supplied by the City's asset management program and by applying smart growth principles to infrastructure decisions will ensure that Selkirk is growing towards sustainability, not away from it.

Strategic Goals

1. Establish Governance and Legislative Framework

To be successful the City's Capital Asset Management Program must have the support of both Council and Administration. Establishing a governance framework in municipal legislation and administrative policy communicates the importance of, and the City's dedication to, the program, and it provides a more permanent and enduring foundation. To achieve this goal the City will:

1.1 Establish CAMP by by-law, giving it appropriate permanence and priority.

1.2 Establish program framework to define and document administrative policy, tools and processes to dedicate internal resources and establish clear responsibilities and accountabilities.

1.3 Build the understanding and capacity of Council to effectively govern CAMP.

1.4 Set Service Standards using "leading practice" measures and regulatory compliance benchmarks.

2. Build Selkirk's Asset Registry

The foundation of any asset management system is a robust and holistic database containing all of the key measures and characteristics for every unit of municipal infrastructure. Beyond simply building this database, the City must establish the processes, practices and standards for data collection and data maintenance. To achieve this goal the City will:

2.1 Research and establish a basic asset registry database.

2.2 Identify material assets to include in the registry and divide into three implementation phases.

2.3 Collect asset and condition data for phase one assets and add it to the asset registry.

2.4 Collect asset and condition data for phase two assets and add it to the asset registry.

2.5 Collect asset and condition data for phase three assets and add it to the asset registry.

2.6 Identify critical assets that have the highest impact to municipal service delivery.

2.7 Establish and implement policy, procedures and tools for maintaining the currency of asset data.

2.8 Research, identify, procure and migrate to, robust asset registry software.

2.9 Establish and implement Capital Asset Evaluation Policy, procedures and tools.

3. Integrate Capital Asset Management into the City's Core Operations

To maximize the benefit from, and to ensure the sustainability of, this program, asset management practices must be incorporated into all of the existing governance,

management and operation systems used within the City. Asset management will not be a special project to be finished, or a report to be shelved, it will be a core function of the City and will impact each and every department, division and employee. To achieve this goal the City will:

3.1 Establish and implement a debt & investment strategy aligned with City's capital asset management program.

3.2 Redesign the City's financial reserve system to align with its capital asset management program including the creation of renewal/replacement reserves and reserves intended for the planned procurement of new assets.

3.3 Establish and implement a Reserve Funding Policy, procedures and tools to guide the setting of funding targets and integration of funding targets into annual business planning

3.4 Establish a procedure for developing the annual, five year and long-term capital plans.

3.5 Develop and establish an Asset Life-Cycle Maintenance and Renewal Policy, procedures and tools to articulate and guide the selection of preferred methods and materials to be used for City asset renewal and maintenance projects.

3.6 Develop general asset life-cycle maintenance plans for each asset class/sub-class within the City's asset registry.

3.7 Develop and implement a Risk Assessment Policy, procedures and tools to guide the City's identification and management of asset risks including climate change.

3.8 Develop and implement a climate change adaptation plan to identify long term infrastructure enhancements and integrate this plan into the City's capital asset management program.

4. Develop Organizational Capacity

While external resources can help establish and maintain an asset management program, the true determinate of success will be the internal capacity of City staff to understand and use the tools to improve the planning, construction, maintenance, operation, renewal and replacement of municipal infrastructure. Not only does this capacity ensure the City gets more out of the program, it makes the program more resilient. As more employees understand and can use the tools, the program becomes better able to withstand the shock of personnel changes. To achieve this goal the City will:

4.1 Amend job descriptions to delegate new asset management responsibilities and accountabilities; including, but not limited to, the CAO, Director of Operations, Director of Finance, Manager of Finance, Manager of Buildings and Fleet, Manager of Public Works and Manager of Water and Waste Water.

4.2 Create a new position to oversee the maintenance of the asset registry and support other program requirements.

4.3 Create and implement a staff training and development plan for all City employees who will have asset management program responsibilities.

4.4 Raise general staff awareness of asset management and knowledge of City's Capital Asset Management Program.

4.5 Join regional and national asset management networks and associations to maintain and enhance knowledge.

4.6 Develop an asset management module for the quadrennial Council Orientation process.

4.7 Explore software, technological and process enhancements that will allow City staff to project the asset impacts of population growth and increased service demands to encourage better asset planning.

5. Establish Key Performance Measures and A Reporting System

A critical part of asset management is the identification of performance measures and the setting of performance targets. Performance measures help to communicate what is ultimately important about City assets, and helps to focus all decision makers on the activities that will deliver maximum value. Setting targets helps to prioritize City renewal, repair and replacement activities and investments. By establishing

the yardstick by which the performance of City infrastructure will be measured, and by setting targets, the program will provide citizens tools with which they can hold the City accountable. To achieve this goal the City will:

5.1 Research asset management performance indicators and select measures right for Selkirk.

5.2 Develop and implement an Asset Performance Measurement and Reporting policy to guide the tracking and reporting of asset performance measures.

5.3 Establish a systematic performance measurement procedure.

5.4 Select "comparable other" municipalities against which the City can benchmark asset performance.

5.5 Set realistic, but challenging, performance targets to drive improvement in asset conditions and service quality.

5.6 Develop and implement a citizen-friendly reporting system to help citizens understand the condition of City assets and monitor performance trends.

5.7 Link performance measurement with annual business planning processes.

Capital Asset Management Strategy

Strategic Goal	Tactic	Tools & Partners	Timing				
			2016	2017	2018	2019	2020
Establish Governance and Legislative Framework	1.1 Establish CAMP by by-law giving it appropriate permanence and priority	• Asset Management BC • Other municipalities		✓			
	1.2 Establish program framework to define and document administrative policy, tools and processes to dedicate internal resources and establish clear responsibilities and accountabilities.			✓			
	1.3 Build the understanding and capacity of Council to effectively govern CAMP				✓		
	1.4 Set Service Standards using "leading practice" measures and regulatory compliance benchmarks	• Canadian Network of Asset Managers • Asset Management BC • Public Sector Digest • Other municipalities		✓			
Build Selkirk's Asset Registry	2.1 Research and establish a basic asset registry database.	• Other municipalities	✓				
	2.2 Identify material assets to include in the registry and divide into three implementation phases.	• Other municipalities	✓				
	2.3 Collect asset and condition data for phase one assets and add it to the asset registry.		✓				

Strategic Goal	Tactic	Tools & Partners	Timing				
			2016	2017	2018	2019	2020
	2.4 Collect asset and condition data for phase two assets and add it to the asset registry.			✓			
	2.5 Collect asset and condition data for phase three assets and add it to the asset registry.				✓		
	2.6 Identify critical assets that have the highest impact to municipal service delivery				✓		
	2.7 Establish and implement policy, procedures and tools for maintaining the currency of asset data.	• Canadian Network of Asset Managers • Asset Management BC • Other municipalities		✓			
	2.8 Research, identify, procure and migrate to, robust asset registry software.	• Canadian Network of Asset Managers • Asset Management BC • Public Sector Digest • Other municipalities		✓			
	2.9 Establish and implement Capital Asset Evaluation Policy, procedures and tools.	• Canadian Network of Asset Managers • Asset Management BC • Other municipalities		✓			
Integrate CAM into the City's Core Operations	3.1 Establish and implement a debt & investment strategy aligned with City's capital asset management program.	• Other municipalities		✓			

Strategic Goal	Tactic	Tools & Partners	Timing				
			2016	2017	2018	2019	2020
	3.2 Redesign the City's financial reserve system to align with its capital asset management program including the creation of renewal/replacement reserves and reserves intended for the planned procurement of new assets	• Other municipalities		✓	✓		
	3.3 Establish and implement a Reserve Funding Policy, procedures and tools to guide the setting of funding targets and integration of funding targets into annual business planning	• Canadian Network of Asset Managers • Asset Management BC • Other municipalities				✓	✓
	3.4 Establish a procedure for developing the annual, five year and long-term capital plans					✓	
	3.5 Develop and establish an Asset Life-Cycle Maintenance and Renewal Policy, procedures and tools to articulate and guide the selection of preferred methods and materials to be used for City asset renewal and maintenance projects	• Canadian Network of Asset Managers • Asset Management BC • Other municipalities				✓	

Strategic Goal	Tactic	Tools & Partners	Timing				
			2016	2017	2018	2019	2020
	3.6 Develop general asset life-cycle maintenance plans for each asset class/sub-class within the City's asset registry				✓		
	3.7 Develop and implement a Risk Assessment Policy, procedures and tools to guide the City's identification and management of asset risks including climate change	• Canadian Network of Asset Managers • Asset Management BC • Other municipalities					✓
	3.8 Develop and implement a climate change adaptation plan to identify long term infrastructure enhancements and integrate this plan into the City's capital asset management program	• Canadian Network of Asset Managers • FCM					✓
Develop Organizational Capacity	4.1 Amend job descriptions to delegate new asset management responsibilities and accountabilities; including, but not limited to, the CAO, Director of Operations, Director of Finance, Manager of Finance, Manager of Buildings and Fleet, Manager of Public Works and Manager of Water and Waste Water			✓			

Strategic Goal	Tactic	Tools & Partners	Timing				
			2016	2017	2018	2019	2020
	4.2 Create a new position to oversee the maintenance of the asset registry and support other program requirements			✓			
	4.3 Create and implement a staff training and development plan for all City employees who will have asset management program responsibilities	• Canadian Network of Asset Managers • Asset Management BC			✓		
	4.4 Raise general staff awareness of asset management and knowledge of City's Capital Asset Management Program				✓		
	4.5 Join regional and national asset management networks and associations to maintain and enhance knowledge	• Canadian Network of Asset Managers • Association of Manitoba Municipalities • City of Winnipeg		✓			
	4.6 Develop an asset management module for the quadrennial Council Orientation process				✓		
	4.7 Explore software, technological and process enhancements that will allow City staff to project the asset impacts of population growth and increased service demands to encourage better asset planning	• Canadian Network of Asset Managers • Asset Management BC • Other municipalities				✓	✓

Strategic Goal	Tactic	Tools & Partners	Timing				
			2016	2017	2018	2019	2020
Establish Key Performance Measures and A Reporting System	5.1 Research asset management performance indicators and select measures right for Selkirk	• Canadian Network of Asset Managers • Asset Management BC • Other municipalities			✔		
	5.2 Develop and implement an Asset Performance Measurement and Reporting policy to guide the tracking and reporting of asset performance measures	• Canadian Network of Asset Managers • Asset Management BC • Other municipalities • Federation of Canadian Municipalities			✔		
	5.3 Establish a systematic performance measurement procedure					✔	
	5.4 Select "comparable other" municipalities against which the City can benchmark asset performance	• Canadian Network of Asset Managers				✔	
	5.5 Set realistic, but challenging, performance targets to drive improvement in asset conditions and service quality						✔
	5.6 Develop and implement a citizen-friendly reporting system to help citizens understand the condition of City assets and monitor performance trends	• Canadian Network of Asset Managers • Asset Management BC • Other municipalities					✔

Strategic Goal	Tactic	Tools & Partners	Timing				
			2016	2017	2018	2019	2020
	5.7 Link performance measurement with annual business planning processes						✓

COUNTY OF ST. PAUL NO. 19

BALANCING RURAL HERITAGE WITH A DIVERSE ECONOMY

POLICY OBJECTIVE:

The purpose of this policy is to ensure that the County of St. Paul implements asset management practices that enables a coordinated, cost effective and organizationally sustainable approach across all County of St. Paul to:

- Achieve the Council's vision of "a vibrant community which values a high quality of life, balancing rural heritage with a diverse economy"
- Ensure long-term sustainability and to demonstrate fiscal stewardship.

SCOPE:

This policy applies to the lifecycle management activities of physical assets that are owned by the County of St. Paul, which may have a material impact on the capital and/or operating budget. This policy is the bridge between the Organizational Strategic Plan and the Asset Management Strategy.

DEFINITIONS:

Asset means a physical object that is a significant economic resource and provides the delivery of a program or service.

Asset Management means the process of making decisions about the use and care of infrastructure to deliver services in a way that considers current and future needs, manages risks and opportunities, and makes the best use of resources.

Life-cycle means the time interval that commences with the identification of the need for an asset and terminates with the disposal of the asset.

Tangible Capital Asset as per the County's Tangible Capital Asset (TCA) Policy ADM-57 means non-financial assets having physical substance that are acquired, constructed or developed, including land, land improvements, roads, buildings, vehicles, equipment, water mains, sewer mains, and capital

assets acquired by capital lease or through donation, which meet or exceed thresholds set out within that policy.

Asset Maintenance means the regular activities conducted to keep an asset functioning in its intended state. Maintenance activities are not capital investments.

Asset Renewal means the refurbishment or major maintenance of an asset that represents a capital investment and substantially extends the life of an asset.

Asset Replacement means the replacement of an asset that represents a capital investment.

Long-term Financial Plan means a plan that documents the process of aligning financial capacity with long-term service objectives.

PRINCIPLES:

Forward Looking the County of St. Paul shall operate in manner that takes into account the financial effects on future generations and considers changing community circumstances and external economic risks to ensure a vibrant community for generations to come.

Operations Efficiency the County of St. Paul will manage the assets in a manner that ensures that public resources are put to the best possible use and that full cost of asset ownership is considered in decision making.

Service the County of St. Paul shall operate and manage the assets to ensure service delivery to the community in a manner that considers quality of life, long term costs and risks.

POLICY STATEMENTS:

Asset Acquisition: Decisions to acquire new assets will be based on an understanding that the asset supports the long term goals of the community and that the full life cost of ownership has been considered and incorporated into future operating and financial plans.

Asset Maintenance: For each asset, efficient maintenance strategies will be implemented that considers sustaining the desired service levels and seeks to minimize risk and the life cycle cost of ownership.

Asset Renewal/Replacements: Decisions to renew or replace an asset will consider risk (probability and consequences of asset failure), life cycle cost and the impacts to the level of service.

Funding for Asset Renewals/Replacements: A long term financial plan will be maintained which considers the renewal and replacement of existing infrastructure and the impact to taxation and user fees. The timing for asset renewal/replacement will balance risk with cost and levels of service.

The long term financial plan will identify how asset renewals/replacements will be financed, whether be it through current revenues, reserve funds or borrowing.

Asset Disposal: The utilization and function of all assets will be considered periodically together with the cost of operating and maintaining. Assets will be disposed of where it is determined that community resources can be applied to other uses with greater benefit.

RESPONSIBILITIES:

Council

- Approves Asset Management strategies and plans, as required, alongside strategic planning
- Approves asset funding through the annual budget

Corporate Asset Management Steering Committee

- Is appointed by Senior Management and consists of a minimum of one representative from each department with asset ownership as well as one representative of the Planning Department.

- Provides a forum for discussion of asset management strategy, integration and best practices
- Leads the development of corporate asset management tools and practices and oversees their application across the organization

Departmental Asset Management Owners

- Responsibility for Asset Management functions
- Create and implement Asset Management Strategies
- Create and implement Asset Management Plans
- Liaises with Corporate Finance on financial matters

Corporate Finance

- Provides financial direction to the departments
- Responsible for the stewardship of the financial assets and records

REFERENCES:
County TCA
County Strategic Plan
County Vision/Guiding Principle
Building Community Resilience through Asset Management

POLICY AND STANDARDS ADM-115
ASSET MANAGEMENT POLICY

ASSET MANAGEMENT STRATEGY

2017

What is Asset Management?

The Town of Olds has defined Asset Management as the process of making decisions about the use and care of physical and natural assets in a way that considers current and future needs, manages risks and opportunities, and makes the best use of resources to support sustainable service delivery.

Why do we need an Asset Management Strategy?

As the quote to the right states, municipal governments own and operate a majority of core public infrastructure. Municipalities across the country provide services through physical assets such as water and sewer pipes, land and buildings, roads, etc. According to the 2016 Infrastructure Report Card, "1/3 of the countries municipal infrastructure is in fair, poor or very poor condition, increasing the risk of service disruption".

Developing an asset management strategy will assist the Town in making better decisions about infrastructure and the service these assets provide. The strategy will be the link between policy and technical asset management plans (or the day to day implementation) and links asset management to other corporate initiatives. The strategy will identify and describe a set of planned actions that will support decisions to provide the desired levels of service in a sustainable way, while managing risk, at the lowest lifecycle cost.

> *"Almost 60% of Canada's core public infrastructure is owned and maintained by municipal governments and is estimated at $1.1 trillion dollars, or about $80,000 per household".*
>
> – *Canadian Infrastructure Report Card 2016*

In this document

- Community Vision
- Sustainable Service Delivery
- Council Priorities
- Strategy
- Asset Management Priorities
- The Framework

Sustainable Service Delivery

Sustainable Service Delivery ensures that current community service needs, and how those services are delivered (in a socially, economically and environmentally responsible manner), do not compromise the ability of future generations to meet their own needs. Communities build and maintain infrastructure to provide services. These services support our quality of life, protect our health and safety, and promote social, economic and environmental well-being. Failure to care for our infrastructure, manage our natural resources and protect the benefits provided by nature, risks degrading, or even losing, the services communities enjoy, and that future generations may rely on.

Sound asset management practices support Sustainable Service Delivery by considering community priorities, informed by an understanding of the trade-offs between the available resources and the desired services.

- Asset Management British Columbia (AMBC) Framework

Olds Sustainability Plan

As communities grow, there is an increased demand for better roads, sidewalks, recreational facilities, lights and improved sewer and water systems. Balancing community expectation with the risk of aging infrastructure and potential service disruption along with limited funding available to municipalities requires us to be diligent in taking action to make our communities more sustainable and resilient.

The community of Olds has a vision for creating a sustainable future within each of the pillars of sustainability and collectively, supported by responsible management of Olds' natural and built assets, will contribute to the quality of life our citizens have come to expect.

Community Vision

"It is 2036 and the Town of Olds has surpassed a population of 15,000 residents. Residents appreciate Olds and regard it as a desirable community to call home offering a good balance between economic opportunities and high quality of life. Community facilities, amenities and social opportunities are part of the attraction along with Olds' commitment to environmentally responsible growth".

– *Town of Olds Municipal Development Plan*

Council Priorities

The Asset Management Strategy supports Council's Goals for the 2013-2017 term.

Contribution to the *leadership role in sustainability* will be done in part by working to: balance community expectation with sustainable service delivery; protect and increase green spaces including treed areas by developing a succession plan while remaining *fiscally strong* by ensuring the budget balances dollars with the services provided and that our core infrastructure is always maintained.

- Council Service Plan 2013-2017 (amended April 2017)

Olds has 18 km of trail network
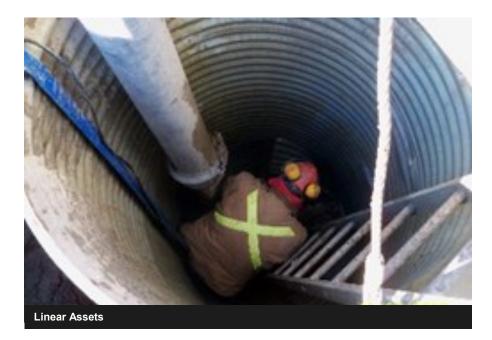
Identified Priorities

Year One (2016):
- √ Define Level of Service
- √ Define roles and responsibilities of the asset management team
- √ Develop Asset Management Strategy
- √ Asset Management Policy development

Year Two (2017):
- * Data collection relating to replacement
- √ Develop risk framework
- * Link Asset Management Plan, Tangible Capital Assets and Geographic Information Systems
- √ Develop condition assessment framework
- * Development engagement and communication protocols
- * Initial report on replacement costs for all assets

Year Three to Five (2018-2022):
- * Develop individual Asset Management Plans per major class
- * Develop and track cost of service delivery (O&M)
- * Develop proposed replacement schedule
- * Develop a long term financial plan by linking the capital and operational plan
- * Develop a standardized data management system
- * Align policies, bylaws and programs
- * Develop an improvement plan

Linear Assets

How are we going to do it?

A technical team comprised of representatives from Core and Support Services, Financial Services and Governance is charged with developing an Asset Management Strategy for the Town of Olds. Developing an asset management plan (AMP) and a growth plan while providing means for implementation of the plan and engaging stakeholders (community) will be the strategic path the team will follow.

Key Questions

In order to begin developing an AMP, the Asset Management Team will answer the following questions:

- What do we own? (inventory)
- Where is it? (inventory)
- What is it worth? (costs/replacement rates)
- What condition is it in and what is its remaining service life? (condition and capability analysis)
- What is the level of service expectation and what needs to be done? (capital and operating plans)
- When do we need to do it ? (capital and operating plans)
- How much will it cost and what is the acceptable level of risk (s)? (short and long term financial plan?) Does it need to be prioritized or managed?
- What is our funding shortfall? Current plan to fund that gap?
- What are the funded and unfunded needs over the next 10 years for the total infrastructure?

Council's Role in Asset Management

Council is responsible for:

- Acting as stewards for infrastructure assets;
- Adopting an Asset Management Policy;
- Providing high level oversight of the delivery of the organization's Asset Management Strategy; and
- Approving levels of service, risk allowance, and budget.

Highway 27 Natural Asset Icon

The Strategy

The Town of Olds Asset Management Strategy will support Council's policy purpose to govern asset management practices taking into consideration the successful delivery of core services, long-term financial sustainability and continuous assessment and improvement.

Where are our Gaps?

The Asset Management Team has identified that the Town of Olds is at a level 2 (out of four) when it comes to asset management practices. This means there are areas for improvement to close the gap. These areas are reflected as identified priorities.

Solar Lighting

The Framework

Olds has chosen the British Columbia Asset Management Framework as it focuses on desired outcomes rather than prescribing specific methodologies. This approach allows for the tailoring of individual needs and capacity of our organization. This framework reflects current best practices and aligns with and is supported by ISO 55000 Standard for Asset Management and the International Infrastructure Management Manual.

People, Information, Assets, and Finances are the core elements necessary for sustainable service delivery. Success requires the integration of these four elements throughout the process of asset management.

Assets (Physical Infrastructure to enable Service Delivery): *Assessing the type of raw asset data available, the quality of the data, and the accessibility of the data.*

Information (to support decision making for Sustainable Service Delivery): *Assessing the translation of data into information and understanding of assets and the activities that are required.*

Finances (Understanding Long Term Costs of Service Delivery): *Assessing the state of financial information, plans, and resources required to meet future level of service requirements.*

People (Culture and capacity for informed decision making): *Assessing the awareness, capacities, and alignment of people to enable sustainable service delivery.*

- Asset Management British Columbia (AMBC) Framework

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Town of Olds

Appendix - Sample Objectives

EXAMPLE ASSET MANAGEMENT OBJECTIVES

Policy and Governance

Ensure an alignment between Council's priorities, infrastructure investment and asset management best practice.[2]

Make stakeholders aware of the true cost of managing the municipality's assets to meet agreed level of service.

Continually measure the performance of infrastructure in terms of the effectiveness of meeting the broader social, economic and environmental needs of the community as a whole.

The municipality's staff displays organizational alignment and commitment to asset management.

Continually evaluate service delivery and infrastructure performance. This would include benchmarking all aspects of infrastructure service and return in time with other municipalities to measure continual improvement. [2]

The municipality makes continuous improvement in asset management. Progress is measured, tracked, and communicated. [3]

Work towards aligning fiscal responsibility with the private sector and other levels of government. [2]

Ensure infrastructure priorities, investments, and commitments are resilient and withstand turnover of people and leadership.

Our processes allow for adaptability and flexibility to address the community's evolving needs with the resources available.

People and Leadership

Advocate for the efficient use of our municipal infrastructure through innovation and new technologies. [2]

Sufficient resources are in place to support asset management (both the practice of asset management and the replacement and renewal of assets). [3]

The municipality makes progress in implementation and demonstrates leadership and innovation in asset management.

Provide training, support and resources to municipal staff to ensure proper development and maintenance of the AM system.

Municipal staff can comfortably communicate AM concepts and decisions to stakeholders.

AM concepts and practices are integrated into municipal staff job descriptions.

Municipal staff and leadership understand their role and responsibility in implementing AM.

Data and Information

Capture relevant asset information and manage this information to enable decision-making. [1]

Appropriate information is available to inform decisions about assets and service delivery. [3]

Ensure that asset information is incorporated into the municipality's decision-making processes.

The municipality will account for and consider natural assets in the same way as engineered assets.

Ensure adequate time and resources are allocated to appropriately maintaining data.

Provide consistent means of collecting and capturing data, both quantitative and qualitative.

Be able to communicate data and information in a way that stakeholders can understand

Planning and Decision Making

Asset planning and decision-making processes are clear and informed by an understanding of levels of service and risk.[3]

Link infrastructure investment decisions to service outcomes. [1]

Strive to deliver services at approved level of service while minimizing lifecycle costs. [1]

Allocate limited resources based on life cycle modeling, multi criteria prioritization, and risk management.

Strive to be the "best practice provider" by maximizing return on municipal infrastructure investment.[2]

Approach infrastructure as a long-term investment rather than a short-term expenditure.[2]

Ensure that infrastructure investment is sustainable and establish a balance between new and existing infrastructure. [2]

Base long-term financial plans on sustainable levels of service.

Consider financial and environmental sustainability in all asset management plans and other governance documents.[4]

Engage the public regarding the importance of municipal infrastructure and level of service standards. [2]

Climate change considerations will be included in level of service standards and risk management.

Use data, levels of service, and risk definitions in developing capital and long-term financial plans.

[1] City of Airdrie Asset Management Strategy

[2] City of Calgary Asset Management Strategy

[3] Township of Langley Asset Management Strategy

[4] City of Revelstoke Asset Management Strategy

Resources

Building Community Resilience Through Asset Management: Handbook & Toolkit for Alberta Municipalities

https://open.alberta.ca/dataset/73da9233-3646-43ec-8bbe-7ce56828d612/resource/be3ec461-a83e-4ed6-afd7-9f0b9948b1a8/download/2015-11-17-handbook-asset-management-final.pdf

FCM Building Blocks of Asset Management

http://www.amm.mb.ca/download/guides/FCM-Guide-The-Building-Blocks-of-Asset-Management.pdf

How to Develop AM Policy, Strategy, and Governance

https://fcm.ca/sites/default/files/documents/resources/guide/how-to-develop-asset-management-policy-strategy-mamp.pdf

Questions to Ask Before Your Municipality Considers Software

https://fcm.ca/en/resources/mamp/guide-questions-ask-your-municipality-considers-asset-management-software

Asset Management Readiness Scale (MAMP)

https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale

AssetSMART 2.0

https://www.assetmanagementbc.ca/wp-content/uploads/AssetSMART-2.0-A-Tool-to-Assess-Your-Communitys-Asset-Management-Practices.pdf

Service Sustainability Assessment Tool

https://www.assetmanagementbc.ca/resources/

Select Subject in left-hand search box to "Service Sustainability Assessment Tool" to view/download the 3 relevant documents.

- User Guide: https://www.assetmanagementbc.ca/wp-content/uploads/Dashboard-Tool-User-Guide.pdf
- Assessment Matrix: https://www.assetmanagementbc.ca/wp-content/uploads/Dashboard-Tool-Assessment-Matrix.xlsm
- Populated Sample: https://www.assetmanagementbc.ca/wp-content/uploads/Dashboard-Tool-Populated-Sample.xlsm