

# The Building Blocks of Asset Management

A how-to guide for reaching Level 1 of FCM's Asset Management Readiness Scale

Municipal Asset Management Program



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## Start here

Hi and welcome! We're glad that you've opened this guide. If you are looking to get started with asset management, you're in the right place. This guide has been designed for communities of all sizes who are just at the beginning stages of developing asset management practices and who want to better understand **FCM's Asset Management Readiness Scale**.

## You've probably heard of something called "asset management"

### Take a minute to think:

- In what contexts have you heard of asset management?
- Do you think you could define asset management? What words would you use to describe what it is?
- Do you think you could explain what it is to a teacher at the local school or to someone you've bumped into in the cereal aisle at the grocery store?

First things first: asset management is not a type of software, a plan or a project. **Asset management is a process for making decisions** about how infrastructure is used and cared for. It involves thinking about infrastructure in the context of current and future needs, considering risks and opportunities, and making the best use of resources. While software, plans and projects can be valuable, they are only support tools — they are not themselves the end goal of asset management. Now take a minute to think about what you would say to someone about **why your community wants to do asset management**. What are the benefits?

### Asset management helps you:

- Address risks to the sustainability of services in your community
- Prioritize projects and allocate resources in a defensible manner
- Align your goals, resources and organization around the things that matter most
- Be accountable to your community
- Take advantage of funding and grants
- Meet legislative requirements

An important part of asset management is having the right people involved. **Asset management is a team sport** — it requires the involvement of different departments. Even if your community's staff complement is small, you will likely have at least two people involved in asset management. For example, your asset management team should include people who understand finance, decision-making, and the planning and operations of each relevant service.



Asset management isn't just about engineered assets. Natural assets, such as aquifers, riparian areas or wetlands, can play a significant role in delivering municipal services. Asset management processes can be applied to these natural assets, supporting the same end goal of sustainable service delivery.



## What is FCM's Asset Management Readiness Scale?

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.



## 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.



## 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're at 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.

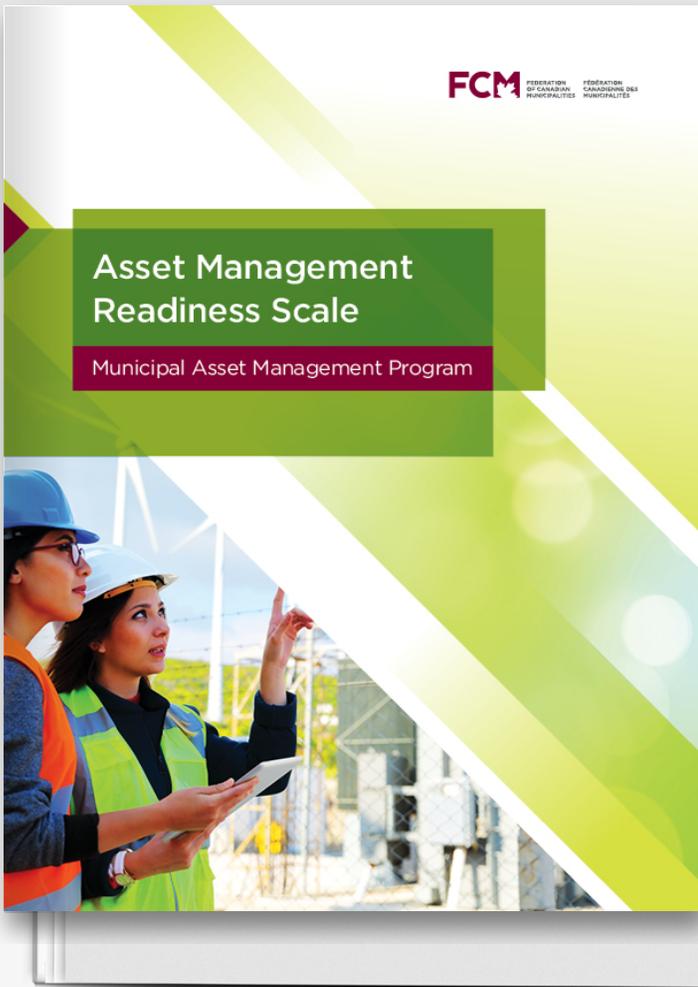
If you're using this guide, chances are that you are beginning your asset management journey or have not reached Level 1 in at least one competency area. Though it may seem like there is a long way to go, we want to congratulate you on getting started on this important process. Wherever you are in the process, don't forget that building your asset management program is a continuous process. It is useful to use tools like the FCM Asset Management Readiness Scale regularly to assess your progress and set priorities for improvement.

## How does FCM's Asset Management Readiness Scale connect to this guide?

This guide was created to help communities in the early stages of establishing asset management practices start their journey in getting to Level 1 on FCM's Asset Management Readiness Scale by identifying some potential steps to achieve the required outcomes — the pieces of each building block.



# This guide is focused on how to achieve Level 1 of FCM's Asset Management Readiness Scale.



### Asset Management Readiness Scale

**Policy and objectives**

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

**Outcome areas** Select the outcomes that your organization has achieved.

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

Asset Management Readiness Scale 8





## A thought experiment...

Imagine for a minute that you'd like to start a community garden in your town. You had a large garden as a kid, but you don't have a lot of space in your yard since moving to town. Besides, your gardening skills have gotten rusty and you'd like to be able to learn from more skilled gardeners. You'd also like to get to know your neighbours better.

*Huh? How is this related to asset management?*

Building an asset management practice is kind of like starting and running a community garden in your town. How so? Just imagine the similarities:

- **You can get started with whatever you have.** You don't need to be a master gardener to start organizing a community garden, and you don't need to know everything about your assets to get started with asset management.
- **You'll need to bring other people along with you.** You can't build a community garden alone, and staff or elected officials of even the smallest communities can't effectively manage assets by themselves. A team is essential to reaching your goals.
- **It's not a project, it's a process.** The first steps are important, and it can be exciting to see progress, but you don't plant your seeds and call it a day. Just like in asset management, the outcomes you really want will come from the ongoing process and through building your abilities over time — not from building the garden plots or the asset spreadsheets.
- **There are benefits in both the outcomes and the process.** A community garden provides the obvious benefits of fresh fruits and vegetables, but the process of building and working together in the community garden builds relationships and new skills for participants. Asset management will result in assets that can deliver services for generations in the future, but the process typically leads to better communication, planning, and overall improved business practices.

Asset management may be new to some of the readers of this guide. It can seem full of jargon and overwhelming. By comparing the process of asset management to something as common as community gardening throughout this guide, we hope you'll be able to think through the key concepts and competencies of asset management and how they apply to your context.

This guide is not meant to be prescriptive. It proposes one way of getting to the destination, but the steps can and should be modified to suit your context. Achieving Level 1 sets you on the path to improving asset management practices. It's not a race or competition; everyone starts somewhere and that's why you've opened this guide.

This guide discusses the competencies in the order in which they appear in the Asset Management Readiness Scale and you can read it front to back. However, the order of these competencies does not necessarily reflect the order in which asset management is done. If, after reviewing the Readiness Scale, you identify one or a few competencies that are more important than others, you can jump right to those and start there.

## What this guide is not

The FCM Asset Management Readiness Scale is used by municipalities across Canada. However, each province has its own requirements on asset management. Achieving Level 1 does not mean that you are meeting your province's regulatory requirements. Part of this process is learning what your organization is required to do, as well as identifying how asset management practices can be improved in general.



## Making the best use of this guide

- Start with the competency area that your organization struggles with the most.
- Remember that all the competencies are important. Don't get caught up in one to the exclusion of others. In many cases, you will be more successful by thinking about several different competencies at the same time.
- If you don't know where to start, read the guide from start to finish and discuss with your team.
- If you still don't know where to start, focus on **data and information**, as well as **people and leadership**.
- Consider jointly organizing an asset management process with neighbouring municipalities. This can be a way to share resources and costs associated with starting asset management. It can also be great motivation! Check out the case studies in the **data and information** competency to see how other communities have done this.



### Don't forget!

As you go through this process, there are a few things to keep in mind:

- Asset management is not a plan — it's a process.
- Asset management is not linear, and this guide doesn't need to be used in a linear way.
- This guide gets you to Level 1 of the FCM Asset Management Readiness Scale. However, asset management is a continuous improvement process.
- It's okay to be at a Level 1 — it's just the first step.
- Asset management connects to and supports existing community processes and goals.



Source: Northwest Territories Association of Communities



# How to reach Level 1 of FCM's Asset Management Readiness Scale

## Policy and governance

### What does this competency involve?

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.

### Outcomes



#### Level 1—Policy and objectives

Senior management is committed to formalizing an asset management (AM) program.



#### Level 1—Strategy and roadmap

We have identified the benefits that we want AM to deliver, and the benefits support organizational objectives.



#### Level 1—Measurement and monitoring

We have identified short-term actions that will demonstrate early progress on AM.

### In other words, this means:

Getting the key decision-makers in your organization on the same page with what you're going to do and why you're going to do it.

## Level 1 benefits

You know where you're headed, which helps you figure out where to start.

You can connect strategic community goals to asset management practices.

You understand service priorities and how asset management helps to achieve these.



Although there is no single “right” place to start, many communities will complete the activities in the **data and information**, and **people and leadership** competency areas at the same time or before completing the activities related to **policy and governance**.



## Getting to Level 1 in policy and governance

Below are some of the steps that you may take to get to Level 1 in the policy and governance competency on FCM's Asset Management Readiness Scale. These are not prescriptive steps but rather an illustration of one approach you could take.



### Level 1—Strategy and roadmap

We have identified the benefits that we want AM to deliver, and the benefits support organizational objectives.

- Get an initial team together. At a minimum, you should have people who represent an understanding of finance, decision-making, and the planning and operations of each relevant service. This might be as few as two or three people. **But it's not one person.** There's no "I" in team.
- Familiarize yourself with the topic and prepare for discussion by reviewing resources on asset management.
- Investigate the regulatory requirements for asset management in your province.
- Identify a tool for assessing your organization's asset management practices. Pick one that makes sense for the context of your community and looks like it would initiate some valuable conversation. You could use **FCM's Asset Management Readiness Scale** for this, or another assessment tool that is right for your community, like Asset Management BC's assessment tool, **AssetSMART 2.0**, or the Municipal Finance Officers' Association of Ontario **self-assessment tool**.
- Use the selected tool to complete an assessment of your organization's asset management practices as a team. It's important to do the assessment as a team, because different people will have different perspectives on where you're at. It is also important that your assessment consider all assets across all departments — not just one asset class — because asset management is an organization-wide practice. The discussion that happens during the assessment is just as important as the results themselves. Make notes about where you're starting from and how you know you are at that point — what evidence supports your self-assessment?
- Assess whether your organization is meeting regulatory requirements for asset management.
- Review council strategic priorities and identify how these relate to asset management. Consider community goals and what you need from your assets and asset management processes to achieve your community goals.

#### **Example:**

A community's goal, and council strategic priority, is downtown revitalization. The understanding and achievement of this goal can be supported by asset management processes and practices. The community can begin to build its asset management program in a way that helps inform decisions about downtown revitalization.

- Identify expected benefits and outcomes of having an asset management program.

#### **Example benefits and outcomes:**

By having an asset management program in place, we will understand what we have and how much it will cost to maintain and replace.

By understanding and communicating trade-offs and decision-making processes, we will increase public trust.





### Level 1 —Measurement and monitoring

We have identified short-term actions that will demonstrate early progress on AM.

- Identify some specific asset management actions your organization can take in the short term to build some momentum and achieve early gains. These actions should support the achievement of the desired benefits and outcomes from your asset management program. This list of actions will change over time as you make progress in asset management.

#### **Example actions:**

Assemble a cross-functional team to guide the development of our asset management program.

Develop a basic asset inventory by collecting available asset information and compiling it into a central inventory.

Raise awareness within council on the purpose and importance of asset management.



### Level 1—Policy and objectives

Senior management is committed to formalizing an AM program.

- Host a workshop with council to share the assessment results, potential objectives, and expected benefits and outcomes.
- Use the workshop as an opportunity to discuss the importance of an asset management policy and get council's input on the objectives and expected outcomes.
- Seek endorsement of the objectives and commitment to developing a policy.



**Remember! This is a process: by achieving Level 1, you are working toward developing an asset management policy and starting to monitor performance.**





## A thought experiment...

You've started the process of building a community garden. You have some land and you have assembled a crew. Maybe a few folks have some experience gardening, but the rest are equipped with little more than enthusiasm. What do you need to do? You need a way to get everyone working toward the same goals.

- Round up the key people who want to help you achieve your vision of building a community garden.
- Talk through why everyone shares this common vision. What are the potential benefits? What are the specific objectives? If the group's main objective is to have a way to teach kids how to garden, you will likely approach building and running the garden differently than you would if the main objective was to grow as much produce as possible. Talking about the benefits as a group helps you to clarify your objectives and generates some needed motivation for taking on the work of the project.
- Talk through the challenges that you anticipate: it's going to be hard work, gardening is weather-dependent, there may be problems with insects, it requires time and commitment, and you need approval from the landowner and the local government. Thinking about these challenges in advance helps you figure out what you might be able to do to reduce or address these challenges early on.
- Figure out what local regulations you need to meet and how they might impact your activities.
- Prepare a presentation or some talking points and meet with the landowner and local government to get all the necessary approvals.

## Tips and tricks

- Understand asset management terminology, and help others understand it too.
- Start by identifying what you're already doing (things that may not be called "asset management") that could be a part of your asset management processes.
- Seek informational resources on asset management through Asset Management Canada and FCM. Reach out to peer communities and ask how they got started.
- Get outside help — ask your local community of practice, consult peer communities, attend a course, or engage a consultant if necessary. A bit of outside help can go a long way in ensuring that you're not spinning your wheels.
- Find out if there are any grant funding programs that you can access to help you get started. If you can access a grant, great! That can help to kick things off. If your community is not able to access a grant, this shouldn't be a barrier — resources exist that are designed to help communities get started with minimal effort/investment.
- Think holistically about the benefits of asset management. What function and value do your natural assets add? Would your land-use decisions benefit from considering asset management? Can asset management help you achieve your climate change or sustainability goals? Asset management can help you accomplish broader community goals and making these connections early can help staff and council understand the **why** of asset management.



# Case study: policy and governance

## Town of Golden, BC

Population: 3,708  
Land area: 11.41 km<sup>2</sup>



Source: Town of Golden, British Columbia

### What motivated the town to get started?

In 2011, the Town of Golden received a grant from the Government of British Columbia to complete a pilot project with an international asset management organization.

### What did they do to work toward Level 1 outcomes?

- The town established a cross-functional leadership team, including the chief administrative officer (CAO), manager of operations, and IT staff person (as support), to lead the asset management planning process and prepare a 10- to 20-year forecast for the cost of replacing and maintaining the town's assets.
- The CAO and the manager of operations attended a three-day asset management course to compile asset inventory spreadsheets and develop an asset register. The IT department provided data support.
- Staff reviewed the town's reserve fund policies to understand the town's position in relation to capital renewal needs and to establish an asset renewal reserve.
- Staff prepared an asset management policy, which was adopted by council.

Over time, the town expects these efforts will improve data, inform plans and budgets, and help them make better decisions on assets.

### Level 1 outcomes achieved

 <b>Policy and objectives</b>	<b>✓ Senior management has demonstrated commitment by joining cross-functional team.</b>
 <b>Strategy and roadmap</b>	<b>✓ The town has identified desired benefits of AM.</b>
 <b>Measurement and monitoring</b>	<b>✓ Short-term measurable actions have been identified (and in some cases, completed).</b>

Senior management took a leadership role in asset management, which led to the achievement of all Level 1 policy and governance outcomes. But the town didn't stop there. It used this success to continue building its asset management practices.

The town is currently working with a consultant to develop asset management plans for assets listed in the asset register. It hopes to use these plans to start a conversation on service, cost and risk, with council and constituents. Once the asset management plans are complete, the town will prepare a priority list of projects and an asset management strategy. The town is also completing asset risk assessments and budgeting to complete detailed risk assessments.

### What results has the town experienced?

The process of developing the asset register and the asset management policy helped identify a gap between what the town needs to maintain and replace assets and what it is capable of handling financially. In response to this gap, the town has established an asset renewal reserve to cover the cost of preparing grant applications and to help fund condition assessments to keep data up to date.



# Case study: policy and governance Township of St. Clair, ON

Population: 14,086  
Land area: 619.17 km<sup>2</sup>



Source: Township of St. Clair, Ontario

## What motivated the township to get started?

The Township of St. Clair was motivated to improve its asset management plan to meet requirements of the Municipal Infrastructure Initiative Program led by the Government of Ontario. In 2012 the township received funding toward the development of a comprehensive asset management plan. The goal of this plan was to improve decision-making processes in managing infrastructure assets. This will help the township make improvements in a timely and cost-effective manner.

## What did they do to work toward Level 1 outcomes?

- The township worked with a consultant to collect asset information to implement an asset management program in 2007. As part of this process, the township set objectives for its asset management program and discussed benefits.
- The township developed a comprehensive asset management plan in-house in 2012, based on information gathered previously.
- The township set the expectation with staff and council that the development of an asset management plan is necessary to secure provincial capital funding for infrastructure projects.
- Public works staff led the development of the asset management plan and worked to build buy-in from council.
- The township gained the support and commitment of the asset management steering committee (consisting of senior management staff) by holding asset management workshops and webinars.

## Level 1 outcomes achieved

 <b>Policy and objectives</b>	<b>✓ The township has gained senior management commitment through workshops and by communicating future funding requirements for AM.</b>
 <b>Strategy and roadmap</b>	<b>✓ The township has identified desired benefits of AM.</b>
 <b>Measurement and monitoring</b>	<b>✓ Short-term measurable actions were identified.</b>

## What results has the township experienced?

Since council adopted the asset management plan in 2013, the township has established an asset management policy and has been working to build buy-in from council to implement the policy. The township is also working toward establishing a framework for the asset management program to present to council, with the objective of budgeting for asset management training and contracts to further develop the program.

As a result of the asset management planning work undertaken by the township, council better understands the importance of life-cycle costing and the true expense of sustaining assets. Additionally, public works and operations staff have come to understand the importance of keeping accurate maintenance records and having the ability to refer to that information for decision-making purposes. The township has also implemented monthly and annual reporting mechanisms with a scorecard and metrics. This has assisted in keeping staff and council on track to achieve plan objectives. The asset management plan has also changed the way that the township builds its annual budget: it now has a process and a plan for maintaining assets, and an understanding of what that will cost.



# Case study: policy and governance City of Plessisville, QC

Population: 7,196  
Land area: 4.40 km<sup>2</sup>



Source: City of Plessisville, Quebec

## What motivated the city to get started?

Following the failure of a number of its assets, which showed some deficiencies in their management, the City of Plessisville has been working toward developing an asset management program since October 2017. The city was part of the Leadership in Asset Management Program French cohort and used the Asset Management Readiness Scale to guide its work. The city started by addressing all five competencies at once but found that this overwhelmed staff capacity. They shifted their focus to the policy and governance competency.

## What did they do to work toward Level 1 outcomes?

- To build capacity, staff attended two workshops led by a consultant, along with several other communities.
- The city identified the need for technical staff support in the development of the asset management program and hired an individual to focus on gathering and organizing data.
- The city intends to develop an asset management program and maintenance plan that exceeds minimum provincial requirements for communities in Quebec.
- The city is aware of the benefits that can be achieved through an asset management program, and plans to define the specific benefits it anticipates, in order to track progress.
- A consultant supported staff in identifying objectives to guide the development of the asset management program. Staff had previously identified operational objectives and the consultant helped make those objectives more strategic.
- The city adopted an asset management policy in May 2018, which resulted in the establishment of an intersectoral asset management committee, the launch of an asset inventory, and implementation of an asset management plan.

## Level 1 outcomes achieved

 <p><b>A</b> Policy and objectives</p>	<p>✓ Senior management has demonstrated commitment through adoption of the AM policy.</p>
 <p><b>B</b> Strategy and roadmap</p>	<p>Working toward Level 1: The city is aware of the benefits of AM and plans to define specific desired benefits.</p>
 <p><b>C</b> Measurement and monitoring</p>	<p>✓ Short-term measurable operational and strategic objectives have been defined, including key actions.</p>

## What results has the city experienced?

Following the adoption of the asset management policy, the city created an asset management committee, which resulted in the development of a common vision and a work plan that combine the various aspects of asset management. These developments will also serve the city well when it comes time to implement the asset management plan, as staff have laid the groundwork for working together toward a common goal. In addition, municipal council has also designated an elected official to act as the person responsible for asset management on the municipal council. This individual would help council understand the principles of integrated asset management, and promote more informed decision-making. Finally, by adopting an AM policy and sharing its principles with the entire organization, the city is ensuring the sustainability of this vision, since it will not rest entirely on the shoulders of one person.



# People and leadership

## What does this competency involve?

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



#### Level 1—Cross-functional teams

We have identified the representation we need on our cross-functional AM team.



#### Level 1—Accountability

We have a champion who has been tasked with planning for our AM program.



#### Level 1—Resourcing and commitment

Council knows that resources must be dedicated to exploring the requirements for AM and for drafting an AM roadmap.

#### In other words, this means:

Someone in the organization is proactively moving the asset management conversation forward. Steps are being taken to pull together the staff with the necessary and different skill sets and knowledge about the assets, information, and finances to work together. Council is aware that resources are needed to improve asset management practices.

### Level 1 benefits

Council understands and supports the goals of asset management.  
Staff are starting to understand what they need from an asset management program.  
Accountability and transparency are improving.



## Getting to Level 1 in people and leadership

Below are some of the steps that you may take to get to Level 1 in the people and leadership competency on FCM's Asset Management Readiness Scale. These are not prescriptive steps but rather an illustration of one approach you could take.



### Level 1—Cross-functional teams

We have identified the representation we need on our cross-functional AM team.

- Identify a small initial team of staff who represent an understanding of finance, decision-making, and the planning and operations of each relevant service. If you're in a small organization without formal departments, this may just be the CAO and the public works manager.
- Meet to discuss what asset management is and why it is important for your community to develop an asset management program. Identify what perspectives and knowledge you need on your cross-functional team, and who in the organization can fill these needs.



### WHAT IS A CROSS-FUNCTIONAL TEAM?

A team that can speak to each component of service delivery: finance, decision-making, operations and planning. In some jurisdictions, there are legislative requirements for who should be involved in asset management. For example, in Ontario, staff dealing with growth, planning and energy need to be involved in asset management.



### Level 1—Accountability

We have a champion who has been tasked with planning for our AM program.

- Hold a presentation or workshop with council to share information about what asset management is, why it's important, how it differs from what you're doing now, and what your organization needs to do to begin building an asset management program.
- Seek endorsement from council (or senior management, depending on your organization) to investigate asset management requirements and to define an asset management program. The team working on asset management will likely include the people from your initial discussion, but it may include others with additional perspectives.



### Level 1—Resourcing and commitment

Council knows that resources must be dedicated to exploring the requirements for AM and for drafting an AM roadmap.

- Seek endorsement from council for the financial resources you need. Be sure to re-state the benefits of getting started on an asset management journey.



**Remember! This is a process: by achieving Level 1, you are working toward a clear organizational mandate for asset management and commitment from council for continuous improvement on asset management.**

Some of these activities are well-aligned with activities in the policy and governance competency. You may want to combine some activities, such as presentations or workshops with council, in a way that achieves desired outcomes in both competency areas.





## A thought experiment...

You have an enthusiastic crew that's ready to build a community garden! Okay, so maybe a few folks have been dragged along by well-meaning family members. How do you bring everyone together and get them working as a team? As with all new things, leadership evolves over time. Perhaps the person spearheading the community garden has never touched a trowel, but they're willing to learn. Whatever the case may be, you need to start with a few key things:

- Identify who will be part of the planning team, and who will just be showing up to garden from time to time.
- Make sure that there are people on your planning team that have the right skills, such as: bringing a team together and getting things done; planting and growing a garden; and navigating local permitting requirements.
- Work with the planning team to make a list of what needs to be done and what equipment you need.
- Make teams and assign tasks so that everyone knows what to do.
- Figure out where you're going to get your resources. Is there a grant you can apply for? Will you fundraise? Can you ask for donations of materials and tools?

## Tips and tricks

- Find a champion! It's less important what the expertise of the champion is, and more important that they are excited about asset management, will talk to others in the organization about it, and can effectively bring people together.
- Talk to peers in other communities to get ideas about how to set up teams and improve communication.
- To get the conversation started, engage council in a discussion about the specific benefits of asset management to your community, not just the benefits of asset management in general.
- This is not about creating new work, but about coordinating better and updating your existing practices into an organized and systematic approach.
- Engage with the community of practice in your area through regional organizations or municipal association meetings.
- Take a course on asset management, ideally as a team.
- In small communities where individual staff wear many hats, a cross-functional group may be as few as two people.



# Case study: people and leadership District of Tumbler Ridge, BC

Population: 1,927  
Land area: 1,558.97 km<sup>2</sup>



Source: District of Tumbler Ridge, British Columbia

## What motivated the district to get started?

The District of Tumbler Ridge is a young community — approximately 36 years old. Most of its infrastructure was installed when the community was established, which means its infrastructure has aged at the same rate and will need to be replaced at the same time. Tumbler Ridge does not have the benefit of staggering its infrastructure investments — a significant challenge to financing these investments.

Prior to 2012, the community had a relatively simple asset management plan, which focused on finances and an equipment replacement fund. Issues were dealt with on a reactive basis — “fix it when it breaks.” Council realized that this approach was not a long-term solution and made asset management a priority.

## What did they do to work toward Level 1 outcomes?

- The district had a strong internal champion who raised awareness of the need for asset management and co-ordinated efforts.
- The district hired a consultant to conduct an asset management workshop with staff and council, to build understanding of asset management and its importance.

## Level 1 outcomes achieved

 <b>Cross-functional teams</b>	<b>Working toward Level 1: The district is identifying representation needed on the cross-functional team.</b>
 <b>Accountability</b>	<b>✓ The district has a strong champion for asset management.</b>
 <b>Resourcing and commitment</b>	<b>✓ Council is engaged, aware of the resources required, and has designated AM as a priority.</b>

With a strong internal champion and council support, the district was able to achieve Level 1 and kick-start its plans, including creating an asset management readiness plan (what the FCM Asset Management Readiness Scale calls a “roadmap”) to guide improvements in asset management practices, and a comprehensive asset management plan that outlines infrastructure inventory and asset replacement priorities.

## What results has the district experienced?

The development of an asset management plan led to a number of achievements and tangible infrastructure projects. The district upgraded the water treatment plant and wastewater treatment blower system, received a grant for the development of a wastewater irrigation system, completed a major asphalt replacement project, and replaced most of the equipment fleet. To make these projects happen, consecutive councils have been proactive in budgeting for asset management planning. Following the completion of these projects, the district updated its asset management plan with revised asset information.

The district highlights the importance of several elements: having accurate asset inventories, to prioritize projects and justify council decisions; considering the tax base in asset management planning; and identifying key leadership among staff to continue prioritizing asset management despite council changes.



# Data and information

## What does this competency involve?

Collecting and using asset data, performance data, and financial information to support effective asset management planning and decision-making.

### Outcomes



#### Level 1—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.



#### Level 1—Performance data

We have informal or anecdotal approaches for measuring asset or service performance.



#### Level 1—Financial information

We have financial information on our assets, supporting minimum PS-3150 reporting requirements.<sup>1</sup>

#### In other words, this means:

You have data that provides a basic snapshot of your assets and that fulfills your reporting requirements with minimal headache.

### Level 1 benefits

You know what data you have and where it is.

You are starting to understand what shape your assets are in, at least anecdotally.

Important information is more accessible for decision-making.

You can meet the PS-3150 reporting requirements for tangible capital assets (TCA).

You are starting to understand how your data can help you accomplish your goals.

<sup>1</sup> PS-3150 is the Public Sector Accounting Board's standard guiding the treatment of tangible capital assets.



## Getting to Level 1 in data and information

Below are some of the steps that you may take to get to Level 1 in the data and information competency on FCM's Asset Management Readiness Scale. These are not prescriptive steps but rather an illustration of one approach you could take.



### Level 1—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.

- Identify all the places where you store data on your assets. This might include as-built drawings (electronic or hard copy), spreadsheets for TCA reporting, databases, including GIS databases if available, and any other spreadsheets or software applications used to track information about the assets you have, the quantities of the assets, and where these assets are.
- Make a list of the types of asset data you have and the format it is in.
- Make a list of anecdotal condition information by talking to operators or public works staff to identify any critical assets that might be in poor condition.



### Level 1—Performance data

We have informal or anecdotal approaches for measuring asset or service performance.

- Work with operators or public works staff to review maintenance logs for patterns in asset performance. For example, persistent water main breaks, low-pressure zones, backups, increase in pump failures, etc.
- Review citizen satisfaction surveys and complaint logs to identify common issues related to service performance.
- Ask staff and council members who regularly interact with the public about common complaints or feedback related to service performance.



**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.**



### Level 1—Financial information

We have financial information on our assets, supporting minimum PS-3150 reporting requirements.

- Review the financial data you have available. Ensure that you have historic cost and age information for all major assets. Fill in gaps where necessary with available information or your best estimate.
- Use the historic cost information and the age to determine asset depreciation and the depreciated value of the asset, which can be used for PS 3150 reporting.



**Remember! This is a process: by achieving Level 1, you are working toward having inventory data on all your assets, including condition, performance and risk information and replacement costs for at least some assets.**





## A thought experiment...

Keeping some basic records helps you to be successful with your gardening and build on your successes in the coming years. What kind of things do you keep track of?

- How many garden plots you have, and who is assigned to each plot of land
- What people are saying about their garden plots — for example, some plots may receive too much shade; other plots may not have good quality soil; or the garden may have invasive species
- People who can help maintain the garden, fix things, or build structures to expand the garden
- What money is coming in and how you're spending it
- What is working well and what's not

In your garden, just like in asset management, all kinds of tools are available. More expensive and more sophisticated do not necessarily mean better. Sometimes you benefit more from cheap and easy-to-use tools because you can get started right away, rather than waiting for ideal conditions or the deluxe tool set.

## Tips and tricks

- Start with the data you have and try to identify the key messages from that data. Data collection is an ongoing process and will improve over time. Don't put off other parts of asset management because you need to collect more data.
- Don't get trapped in a data vortex! Collect what you NEED, not everything. To figure out what you need, identify the decisions you need to make, then figure out what data, and what level of accuracy, is needed to support that decision.
- Good data supports good projects and access to funding. Cutting corners with data collection creates a headache down the line when you need inputs to support a project or to meet funding requirements.
- When thinking about your data needs over the long term, you want to be able to answer the questions below. These questions will help you get to the ultimate goal of asset management: knowing what your asset priorities are and making financial decisions based on these priorities:
  - What do we own and where is it?
  - What will it cost to replace?
  - What is its condition?
  - What is its remaining service life?
- It's important to have systems in place to manage your data and keep it up to date. Even in the early stages of data collection you can start thinking about how you will maintain your data in the medium and long term.



# Case study: data and information

## Town of Hanley, SK

Population: 511  
Land area: 2.65 km<sup>2</sup>



### What motivated the town to get started?

Staff from the Town of Hanley had been learning about asset management through the Saskatchewan Urban Municipalities Association annual convention. They knew that asset management was important, and council even budgeted for an asset management plan, but it was difficult for staff to know where to start. Council considered several different options for how they could develop an asset management plan, but no real progress was made.

In 2017, the town attended a series of consultant-led asset management planning workshops organized by the regional planning commission of which the town is a member. The goal of the workshops was to help administrators and councillors of municipalities in the region develop knowledge and expertise in municipal infrastructure asset management, and to guide each community through the process of creating its own asset management plan from start to finish.

### What did they do to work toward Level 1 outcomes?

Staff and council members attended workshops to learn about asset management. The workshops provided a structure for them to gather their asset information into one place, including inventory, anecdotal data and financial data. This helped them to start preparing an asset management plan, including the identification of levels of service and major risks. The town found that by attending the workshops staff were able to take time away from day-to-day operations to focus on creating their plan. By developing its asset management plan in a workshop setting, the town was able to work with and learn from the other regional communities in attendance. The workshop setting also created efficiencies in enabling multiple communities to benefit from hiring one consultant.

Staff updated the Tangible Capital Asset (TCA) register annually with information on actual asset replacement costs. This information was helpful in developing the town's asset management plan.

### Level 1 outcomes achieved

 Asset data	<ul style="list-style-type: none"><li>✓ The town has asset inventory data for most asset groups.</li><li>✓ Anecdotal condition information about assets is available.</li></ul>
 Performance data	<ul style="list-style-type: none"><li>✓ Approaches for measuring service performance are available.</li></ul>
 Financial information	<ul style="list-style-type: none"><li>✓ Financial information is available to support PS-3150 requirements.</li></ul>

### What results has the town experienced?

Town council reviewed the completed asset management plan and built an understanding of current assets and their replacement costs. Council members felt they had the information they needed to make informed decisions about asset replacement, budgets and tax rates. Developing an asset management plan highlighted that the town did not have adequate reserve funds to pay for upcoming replacement costs. The asset management plan provided council with the information it needed to communicate with constituents about asset needs and their impacts on tax rates.



# Case study: data and information

## Village of Loreburn, SK

Population: 107  
Land area: 0.62 km<sup>2</sup>



Source: Village of Loreburn, Saskatchewan

### What motivated the village to get started?

In the past, the Village of Loreburn didn't see the need to prioritize asset management planning. However, after attending asset management presentations at the Saskatchewan Urban Municipalities Association convention, the village had the opportunity to attend asset management planning workshops along with the Town of Hanley, organized by their regional planning commission.

### What did they do to work toward Level 1 outcomes?

- The village administrator and a council member attended asset management workshops to learn about collecting asset inventory in order to start preparing an asset management plan. Staff prepared by gathering maps, asset registers and documents on tangible assets prior to the first workshop.
- Information gathered in advance of the workshop was compiled into an excel spreadsheet during the workshop.
- The workshops were a collaborative effort with other communities in the region. This not only helped make workshops financially viable for the small communities; it allowed the communities to share information on common infrastructure.
- Like the Town of Hanley, the village found it helpful to set aside time to focus on creating an asset management plan, rather than getting weighed down by day-to-day tasks.

### Level 1 outcomes achieved

 <p><b>A</b> Asset data</p>	<ul style="list-style-type: none"> <li>✓ The village has asset inventory data for most asset groups.</li> <li>✓ Anecdotal condition information about assets is available.</li> </ul>
 <p><b>B</b> Performance data</p>	<ul style="list-style-type: none"> <li>✓ Approaches for measuring service performance are available.</li> </ul>
 <p><b>C</b> Financial information</p>	<ul style="list-style-type: none"> <li>✓ Financial information is available to support PS-3150 requirements.</li> </ul>

### What results has the village experienced?

Once they got started with their asset management plan, they realized the value of having asset information readily available for staff, council and constituents. Through the process of developing its asset management plan, the village found that much of the asset information it had on file was out of date. Due to retirements and turnover, some staff and council members were no longer available to answer questions about the community's assets. The importance of keeping accurate records, to ensure that knowledge isn't lost when a staff or council member leaves, really hit home.

The village identified the need for an asset management maintenance plan — a major shift from the previous “fix it when it breaks” mindset. The village now wants to understand when assets need to be replaced, the cost of replacement, and how they will be paid for. The village also commits time to working on asset management planning and decision-making, separate from regular council meetings.



# Case study: data and information Town of Yarmouth, NS

Population: 6,518  
Land area: 10.57 km<sup>2</sup>



Source: Town of Yarmouth, Nova Scotia

## What motivated the town to get started?

Yarmouth is the fifth-largest town in Nova Scotia and is a major commercial, economic and education service center for most of the southwestern portion of the province. As a major service provider for the region, the town has been motivated to proceed with asset management planning to ensure that services are available into the future.

For the last 25 years, the town has had a professional engineer on staff who is responsible for managing processes for building and maintaining infrastructure. When the staff engineer initiated asset management planning in the town, it became clear that the town required significantly more capital, maintenance and personnel resources to properly maintain assets.

## What did they do to work toward Level 1 outcomes?

- The town worked with a consultant to develop a preliminary-state asset inventory based on information compiled by the town engineer and GIS data.
- By achieving Level 1 of this competency, the town had the asset inventory data needed to develop an asset management plan.

## Level 1 outcomes achieved

 <p><b>A</b> Asset data</p>	<ul style="list-style-type: none"> <li>✓ The town has asset inventory data for most asset groups.</li> <li>✓ Anecdotal condition information about assets is available.</li> </ul>
 <p><b>B</b> Performance data</p>	<p><b>Working on Level 1: The town is developing informal approaches to measuring service performance.</b></p>
 <p><b>C</b> Financial information</p>	<ul style="list-style-type: none"> <li>✓ Financial information is available to support PS-3150 requirements.</li> </ul>

## What results has the town experienced?

Developing an asset management plan led to the following progress and insights:

- Technical and managerial needs in the future would require two engineering positions.
- Tax rates needed to increase to meet funding needs.
- Accurate data and information would be needed to deal with staff turnover and changes in council.
- The asset management plan helped the town understand its debt-to-affordability model to project funding requirements into the future.
- The asset management plan helped council realize the importance of asset management, leading to increased support and collaboration with staff on asset management goals.
- The town started to invest heavily into capital improvements to “fill the infrastructure deficit” left by 100 years of unresolved infrastructure issues.

Today, council is confident in investments made in capital assets, and staff continue to develop their expertise in asset management.



# Case study: data and information

## Village of Haines Junction, YK

Population: 613  
Land area: 34.08 km<sup>2</sup>



Source: Marty Samis

### What motivated the village to get started?

Village administration recognized that to comply with the requirements of PS 3150, the village would need to organize and understand community assets. The village was motivated to develop an asset register to ensure that it would be eligible for asset management funding.

### What did they do to work toward Level 1 outcomes?

- The village had established a basic asset ledger, but to meet the requirements of PS 3150, it needed to record original asset costs.
- Village staff researched commercial software applications available to support the development of an asset register. However, most applications were not suited to the scale of the village's small asset base and were very expensive to purchase. Instead, the village developed its own asset register by programming an Excel spreadsheet to organize assets and calculate depreciation, estimated useful life, and estimated replacement values.
- The village took approximately one year to gather asset data and organize the information into the Excel register.
- The village sourced original costs of community assets through archived accounting records, invoices and federal government records of infrastructure development in the community.
- The village recognized that most assets in the community, except for those that were recently replaced, were already beyond their expected useful life as they were installed more than 40 years ago, and most were constructed experimentally. With this anecdotal information, the village assumed that all old assets needed to be replaced in the near future.
- The village recognized that it is very expensive to conduct physical asset inspections to determine expected useful life. Instead, it was able to use mathematical models in the Excel register to project expected useful life.
- With the Excel register, the village was able to calculate the depreciation of capital assets to meet PS 3150 reporting requirements.

### Level 1 outcomes achieved

 <b>Asset data</b>	<ul style="list-style-type: none"> <li>✓ The village has asset inventory data for most asset groups.</li> <li>✓ Anecdotal condition information about assets is available.</li> </ul>
 <b>Performance data</b>	<ul style="list-style-type: none"> <li>✓ Informal approaches for measuring service performance are available.</li> </ul>
 <b>Financial information</b>	<ul style="list-style-type: none"> <li>✓ Financial information is available to meet PS-3150 requirements.</li> </ul>

### What results has the village experienced?

The village has realized that asset management planning is not a process undertaken overnight, but one that is continuously developed over time by collecting data through everyday asset use. The village has also recognized that asset management planning is a multidisciplinary undertaking, involving personnel from finance, public works, administration and leadership.

With the development of the Excel register, the village's capital budgeting process has been streamlined, and administration has been able to plan for when assets will need to be replaced. The village also has plans to develop an asset management plan and is considering the establishment of a reserve fund to support the replacement of assets over time.



## Planning and decision-making

### What does this competency involve?

Documenting and standardizing how the organization sets asset management priorities, conducts capital and operations and maintenance (O&M) planning, and decides on budgets.

#### Outcomes



##### **Level 1—Documentation and standardization**

Our asset planning approaches vary across the organization.



##### **Level 1—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.



##### **Level 1—Budgets and financial planning**

We prepare annual capital and operating budgets based on historical values. We deal with new needs reactively, as they occur.

#### **In other words, this means:**

You're using input and knowledge from staff and council to plan how to respond to your community's immediate asset needs. You have a basic asset investment plan (or plans).

#### **Level 1 benefits**

You're improving decision-making processes about asset investments by including knowledge from staff and council.

You have documented basic asset investment needs.

You are establishing documentation and record-keeping practices for the future.



## Getting to Level 1 in planning and decision-making

Below are some of the steps that you may take to get to Level 1 in the planning and decision-making competency on FCM's Asset Management Readiness Scale. These are not prescriptive steps but rather an illustration of one approach you could take.



### Level 1—Documentation and standardization

Our asset planning approaches vary across the organization.

- Before beginning your annual budgeting process, pull together information about your community's growth, upcoming regulatory requirements, and other known asset issues and needs. Members of the asset management team can all work to track down this information. The steps in the **data and information** competency will help you with this.
- At the beginning of your annual budgeting process, meet with your asset management team to review available asset data and information, as well as community growth information, regulatory requirements, and asset issues and needs.



### Level 1—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.

- As a team, define potential projects to meet the needs or address the issues identified.
- As a team, discuss how to rank the priority of the projects. Create a simple scale to assist with prioritization.

#### **Example prioritization scale**

- 1 - Health and safety issue, regulatory requirement
- 2 - Addresses major risk to service delivery
- 3 - Addresses minor risk to service delivery, or meets growth requirements
- 4 - Discretionary project



### Level 1—Budgets and financial planning

We prepare annual capital and operating budgets based on historical values. We deal with new needs reactively, as they occur

- As a team, and using your prioritization scale, review the projects and rank them in order of importance. Identify capital and operational projects for the upcoming year based on available funding.
- Include the capital projects for the upcoming year in the annual capital budget, with rationale based on the prioritization ranking and other supporting information about the assets, growth, or regulatory requirements.
- Develop an operation budget using the past few years as a baseline. Adjust with new or unique activities for the coming year.



**Remember! This is a process: by achieving Level 1, you are working toward preparing asset management plans and managing both short- and long-term risks to your assets.**





## A thought experiment...

Your community garden is off to a great start this year. To support future years, you need some planning and basic systems to document processes. Keeping a garden going requires time and money and you're still figuring it out at this point. You only have a rough idea of where money for repairs and expansion will come from. At a minimum, you need to write down next year's tasks (e.g. obtaining tools, doing repairs, preparing soil) and how much money these will cost. You find out what needs to be done, and when, by talking to everyone involved. The group can't afford to do it all, so after you have the master list, you work together to identify the top priorities.

Unexpected things will happen — weather, invasive species, volunteer turnover — and you will have to adapt. As your garden becomes more established, you and your crew will learn what you need to do and plan for.

## Tips and tricks

- Have an asset management champion in your organization. This doesn't mean this person should “do” asset management on their own. Asset management is a team sport; but the champion can coordinate efforts, help work toward consistency of asset management practices, and move things along.
- Approach planning in bite-sized chunks. Don't feel like you have to accomplish everything in one meeting.
- Don't worry about having perfect data — use what you have and fill gaps with anecdotal information and staff knowledge.



# Case study: planning and decision-making Town of Shellbrook, SK

Population: 1,444  
Land area: 3.67 km<sup>2</sup>



Source: Town of Shellbrook, Saskatchewan

## What motivated the town to get started?

The Town of Shellbrook was accustomed to making reactive asset management decisions, until several sewer lines failed simultaneously. The town realized that it did not have enough asset information available to support good decision-making processes and that replacement costs hadn't been budgeted for. This shock led the town to prioritize asset management planning.

## What did they do to work toward Level 1 outcomes?

The Town of Shellbrook used Level 1 as a stepping stone to develop more robust asset management practices.

- The town administrator and a public works staff member attended an asset management training session.
- The town hired a consultant to work with the public works foreman to develop an asset management database and the town's first asset management plan.
- The town worked with the consultant to hold workshops to help determine levels of service and to develop a risk assessment and mitigation plan.
- Asset management plans were developed for services including water, sewer, roads, sidewalks, gutters and buildings.
- As the town's asset management practices have improved, it has been able to use the plans to create better budgets each year.

## Level 1 outcomes achieved

 <b>Documentation and standardization</b>	✓ Approaches for asset planning are in place, but they are not consistent.
 <b>Asset management plans</b>	✓ AM plans are in place that define levels of service and risk (beyond Level 1).
 <b>Budgets and financial planning</b>	✓ AM plans are used to inform budgets (beyond Level 1).

## What results has the town experienced?

Council has embraced the need for good asset information and strong asset management plans. After replacing the town's water system, a rate review found that water utility services were significantly underfunded. Accurate and current data was needed to justify rate increases.

Council is now looking to initiate the preparation of a long-term financial plan. The town wants to be a forward-thinking community that is able to meet its asset needs.



## Contribution to asset management practice

### What does this competency involve?

Supporting staff in asset management training, sharing knowledge internally to communicate the benefits of asset management and participating in external knowledge sharing.

### Outcomes



#### Level 1—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.



#### Level 1—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.



#### Level 1—External communication and knowledge-sharing

We are investigating AM-related organizations and resources.

#### In other words, this means:

We're interested in asset management and have found a couple of internal champions. We've started documenting important asset information but have some work to do before asset management is an integral part of our organization.

### Level 1 benefits

Your organization is starting to learn about asset management.

You've realized that you're not alone — others are in the same place as you, and there are resources available to help.

You've started to think about how to reduce knowledge loss during staff turnover.



## Getting to Level 1 in contribution to asset management practice

Below are some of the steps that you may take to get to Level 1 in the contribution to asset management practice competency on FCM's Asset Management Readiness Scale. These are not prescriptive steps but rather an illustration of one approach you could take.



### Level 1—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.

- If you are your organization's asset management champion, try to find an internal ally or two. Talk to others in your organization who you think might also be promoters of asset management.
- Look into attending asset management training. Identify a couple of colleagues from different departments who could attend with you.



These activities will help boost your progress in the **people and leadership** competency.



### Level 1—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.

- Identify staff with specialized asset knowledge who have a long history with the organization or are close to retirement. Identify some of the potential challenges the organization would face if these people left.



### Level 1—External communication and knowledge-sharing

We are investigating AM-related organizations and resources.

- Contact your local community of practice to let them know that you're at the beginning stages of bringing asset management into your organization. Ask what resources they would recommend, and if there are people from other communities that they would recommend you talk to.
- Share with colleagues any resources you find to be helpful. Set up a central electronic folder to store asset management resources.



Remember! This is a process: by achieving Level 1, you are working toward being an active participant in asset management events and sharing knowledge with peers in other communities. This will build the strength of your organization's practices, as well as helping other communities with theirs.





## A thought experiment...

When you're starting a community garden, a big part of the process is learning by doing. But you know that other communities have started their own community gardens and have probably already learned a lot of lessons. So, you might reach out to other community organizations to get their ideas and find out what some of their challenges were.

Once your garden is established and you see the fruits of your labour (pun intended!), you'll have learned much about what grows well in your garden, what doesn't, and what types of tricks are needed to keep away pests. You might want to jot these lessons down somewhere, so you can share what you've learned with others.

Whether in the early or advanced stages, there are always opportunities to learn from the challenges and success of others and build a network of people and organizations you can reach out to whenever you need help.

## Tips and tricks

- Start small by having conversations with staff whose work would benefit from improved asset management practices.
- Make it fun and use asset management as a way to connect different staff members and build a team culture.
- Engage staff who have been around for a long time, especially if these staff are planning to retire in the near future.
- It's a journey. Asset management is a process and you will always be learning. Level 1 in this competency is about starting to familiarize yourself with resources and organizations out there to help you do the work you need to do.



# Case study: contribution to asset management practice

## County of St. Paul, AB

Population: 6,036  
Land area: 3,309.44 km<sup>2</sup>



Source: County of St. Paul, Alberta

### What motivated the county to get started?

The County of St. Paul administration recognized the need to think about how to prolong the life span of its infrastructure. County administration was motivated to develop asset management plans to improve decision-making and better justify priorities.

### What did they do to work toward Level 1 outcomes?

- The CAO acts as a champion and communicates to council that asset management should be a top priority. The CAO regularly attends meetings with Infrastructure Asset Management Alberta (IAMA) and the Alberta Rural Municipal Administrators' Association (ARMAA) to stay informed on asset management practices.
- The county established a cross-functional team with members from finance, GIS, public works, corporate services and community services, brought together to develop an asset management strategic plan.
- The county developed a register for tangible capital assets (TCA) and categorized assets. Data was organized in a spreadsheet, including information on initial cost, useful life, replacement timeline, and replacement cost. The data in the spreadsheet was refined over time. All roads were classified by use type and use frequency to better understand maintenance needs.
- The county worked with a consultant to prepare an asset management plan.
- The CAO regularly attends meetings with other communities in Alberta to share the county's experience with asset management planning.

### Level 1 outcomes achieved

 <p><b>A</b> Training and development</p>	<ul style="list-style-type: none"> <li>✓ AM training is driven by the personal initiative of staff.</li> <li>✓ Staff conduct targeted research to seek out basic AM information.</li> </ul>
 <p><b>B</b> Internal communication and knowledge-sharing</p>	<ul style="list-style-type: none"> <li>✓ Roads asset data is documented and refined, to mitigate the risk of losing anecdotal information.</li> </ul>
 <p><b>C</b> External communication and knowledge sharing</p>	<ul style="list-style-type: none"> <li>✓ The CAO regularly attends IAMA meetings (beyond Level 1).</li> </ul>

### What results has the county experienced?

The county found the following benefits from completing an asset inventory:

- Council and staff have a stronger understanding of community assets and infrastructure upgrade needs.
- Staff have a collective understanding of asset management goals and are working together to achieve them.
- Steps have been taken to develop reserve funds for the replacement of assets.

This all helps to support the county in having a robust decision-making process and being able to plan for the future.



## At a glance

### Action checklist

<b>Policy and governance</b>	<ul style="list-style-type: none"><li><input type="checkbox"/> Get an initial multi-department team together.</li><li><input type="checkbox"/> Find resources on asset management and investigate the regulatory requirements in your province.</li><li><input type="checkbox"/> Assess your organization's asset management practices and review whether you are meeting regulatory requirements.</li><li><input type="checkbox"/> Identify some benefits, outcomes, and short-term asset management actions based on your assessment, regulatory requirements, council strategic priorities and community goals.</li><li><input type="checkbox"/> Host a workshop with council to share the assessment results, potential objectives and expected benefits and outcomes.</li><li><input type="checkbox"/> Seek council's commitment to developing an asset management policy.</li></ul>
<b>People and leadership</b>	<ul style="list-style-type: none"><li><input type="checkbox"/> Identify an initial multi-department team and identify what perspectives and knowledge you need on your cross-functional team and who can fill these needs.</li><li><input type="checkbox"/> Present to council on what asset management is and why it's important for your organization. Seek endorsement for asset management activities.</li><li><input type="checkbox"/> Seek endorsement from council for the financial resources you need.</li></ul>
<b>Data and information</b>	<ul style="list-style-type: none"><li><input type="checkbox"/> Identify all the places you store data on your assets.</li><li><input type="checkbox"/> Make a list of the types of asset data you have and the format it is in.</li><li><input type="checkbox"/> Talk to operators or public works staff to identify any critical assets that might be in poor condition or have persistent problems.</li><li><input type="checkbox"/> Review community feedback and ask staff and council members to identify common complaints about service performance.</li><li><input type="checkbox"/> Review the financial data you have available and use this data to determine asset depreciation and the depreciated value of the asset.</li></ul>
<b>Planning and decision-making</b>	<ul style="list-style-type: none"><li><input type="checkbox"/> Pull together information about your community's growth, upcoming regulatory requirements, and other known asset issues and needs.</li><li><input type="checkbox"/> Meet with your asset management team at the beginning of your annual budgeting process to discuss the information collected.</li><li><input type="checkbox"/> As a team, define the potential projects that will help you meet the needs or address the issues identified. Discuss and prioritize these projects.</li><li><input type="checkbox"/> Include capital projects for the upcoming year in the annual capital budget.</li><li><input type="checkbox"/> Develop an operational budget.</li></ul>
<b>Contribution to asset management practice</b>	<ul style="list-style-type: none"><li><input type="checkbox"/> Find an internal asset management ally (or two).</li><li><input type="checkbox"/> Contact your local community of practice.</li><li><input type="checkbox"/> Look into attending asset management training.</li><li><input type="checkbox"/> Share any resources you find to be helpful with other colleagues.</li><li><input type="checkbox"/> Identify staff who have strong asset knowledge and bring them together through a workshop to document the processes they use to make decisions about assets and asset investments.</li></ul>



# Action planning worksheet

Policy and governance	People and leadership	Data and information	Planning and decision-making	Contribution to asset management practice
<p>Get an initial multi-department team together.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Identify an initial multi-department team and identify what perspectives and knowledge you need on your cross-functional team and who can fill these needs.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Identify all the places you store data on your assets.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Pull together information about your community's growth, upcoming regulatory requirements, and other known asset issues and needs.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Find an internal asset management ally (or two).</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>
<p>Find resources on asset management and investigate the regulatory requirements in your province.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Present to council on what asset management is and why it's important for your organization. Seek endorsement for asset management activities.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Make a list of the types of asset data you have and the format it is in.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Meet with your asset management team at the beginning of your annual budgeting process to discuss the information collected.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Contact your local community of practice.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>
<p>Assess your organization's asset management practices and review whether you are meeting regulatory requirements.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Seek endorsement from council for the financial resources you need.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Talk to operators or public works staff to identify any critical assets that might be in poor condition or have persistent problems.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>As a team, define the potential projects that will help you meet the needs or address the issues identified. Discuss and prioritize these projects.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Look into attending asset management training.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>
<p>Identify some benefits, outcomes, and short-term asset management actions based on your assessment, regulatory requirements, council strategic priorities and community goals.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>		<p>Review community feedback and ask staff and council members to identify common complaints about service performance.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Include capital projects for the upcoming year in the annual capital budget.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Share any resources you find to be helpful with other colleagues.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>
<p>Host a workshop with council to share the assessment results, potential objectives and expected benefits and outcomes.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>		<p>Review the financial data you have available and use this data to determine asset depreciation and the depreciated value of the asset.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Develop an operational budget.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>	<p>Identify staff who have strong asset knowledge and bring them together through a workshop to document the processes they use to make decisions about assets and asset investments.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>
<p>Seek council's commitment to developing an asset management policy.</p> <hr/> <p><b>ASSIGN TEAM MEMBERS</b></p> <hr/> <p><b>ASSIGN DUE DATE</b></p>				



## Continuing your asset management journey

This guide was designed to help you get started on your asset management journey. Level 1 is just the beginning, but you should shortly be seeing benefits related to your community's service delivery goals.

As you continue on your asset management journey, stay connected and up-to-date through [FCM's website](#) and [FCM's Connect newsletter](#) and through [Asset Management Canada](#), where resources and information on national and regional communities of practice are regularly updated.

What if you've read this guide and still aren't sure where to start? Contact FCM at [mamp.funding@fcm.ca](mailto:mamp.funding@fcm.ca) or 1-877-997-9926 (Ottawa-Gatineau: 613-907-6208).

## Key concepts

The key concepts used in this document are defined below.

**Asset inventory:** A list of assets owned and the attributes of the assets. **Basic inventory data** includes attributes such as size, material, location and installation date. **Expanded inventory data** includes additional information such as location (coordinates), criticality, and supplementary information that is relevant for the asset class (such as type, make, model, and design capacity).

**Asset management (AM) plan:** A detailed plan that outlines how assets will be managed in one or more service areas. An asset management plan identifies how assets will be maintained and renewed, and the cost, level of service and risk considerations in each service area.

**Asset management (AM) policy:** Outlines a municipality's commitment and mandated requirements for asset management. A policy is linked to the municipality's strategic objectives and is shaped by its values and priorities.

**Asset management (AM) program:** The set of policies, people, practices and processes that make up a municipality's formal approach to asset management.

**Asset management (AM) roadmap:** A step-by-step plan outlining the actions, responsibilities, resources and time scales needed to implement and deliver asset management objectives.

**Asset management (AM) strategy:** A document that lays out the direction, framework and approach for implementing the community's asset management policy.



**Capital plan:** A plan for facility and infrastructure investments, including cost and timing information on asset renewal, decommissioning, disposal and investments in new assets.

**Community of practice:** A formal or informal network that supports education and knowledge sharing on a particular subject. A community of practice for asset management may refer to provincial organizations that advocate for asset management, as well as any number of informal networks.

**Condition data:** Information about the state of your assets. For example, a certain length of road with many potholes may be identified as being in poor condition.

**Critical assets:** Assets that provide extremely important functions in service delivery, especially those for which there is no available redundancy or substitution. The consequences of failure of critical assets are serious.

**Cross-functional team (asset management team):** A team that works across departments or disciplines to ensure that decisions integrate all relevant perspectives and priorities.

**Financial information:** Information about the renewal cost of the asset, and estimated timeline for renewal.

**Levels of service:** The parameters, or combination of parameters, that reflect the social, political, environmental and economic outcomes that the organization delivers. The parameters can include safety, customer satisfaction, quality, quantity, capacity, reliability, responsiveness, environmental acceptability, cost and availability. (Source: ISO 55000:2014)

**Long-term financial plan:** A plan that balances the required costs and funding sources to meet infrastructure and service needs, over a minimum of 10 years.

**Risk:** The product of the likelihood and consequence of an undesirable event or circumstance. Risk includes both asset risks (e.g. a pipe failing) and strategic risks (e.g. insufficient funds for renewal of critical assets).

