

2020 Corporate Strategic Asset Management Plan

Appendix C FCM Asset Mangement Readiness Scale



Asset Management **Readiness Scale**

Municipal Asset Management Program

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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.

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.



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 <u>Asset Management Canada website</u>.

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 <u>The Building Blocks of</u> <u>Asset Management: A How-to Guide for Reaching Level 1 of the Asset Management Readiness Scale</u>.

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 <u>How to Develop an Asset Management Policy, Strategy and Governance Framework: Set Up a</u> <u>Consistent Approach to Asset Management in Your Municipality</u>, 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:

- 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 <u>The Building Blocks of Asset</u> <u>Management: A How-to Guide for Reaching Level 1 of the Asset Management Readiness Scale</u>.

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.

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.

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

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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.



Outcomes: Select the outcomes that your organization has achieved.								
Outcome areas	Level 1	Level 2	Level 3	Level 4	Level 5			
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.			
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. 			
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 Working Com- level Level 1 V	Completed Level 2	Completed Level 3	Completed Level 4	Completed Level 5
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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.



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Outcomes: Select the outcomes that your organization has achieved.

Outcome areas	Level 1	Level 2	Level 3	Level 4	Level 5
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.
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.
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.

level	Working Com- on pleted Level 1 Level	Completed Level 2	Completed Level 3	Completed Level 4	Completed Level 5
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* 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.



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Outcomes: Select the outcomes that your organization has achieved.

Outcome areas	Level 1	Level 2	Level 3	Level 4	Level 5
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.
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
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* 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.



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	Outcomes: Select the outcomes that your organization has achieved.						
Outcome areas	Level 1	Level 2	Level 3	Level 4	Level 5		
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. 		
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. 		

	Outcomes: Select the outcomes that your organization has achieved.							
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
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* 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.



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	Outcomes: Select the outcomes that your organization has achieved.							
Outcome areas	Level 1	Level 2	Level 3	Level 4	Level 5			
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. 			
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. 			

	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
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Key concepts

Key concepts used in the Asset Management Readiness Scale 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.

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 costs of acquiring, operating, maintaining and replacing the asset.

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).