



# **ADVANCING MUNICIPAL NATURAL ASSET MANAGEMENT THROUGH PROFESSIONAL PLANNING: TWELVE ACTION STEPS**

## **DECISION-MAKER SUMMARY**

JUNE 2019







# THE MUNICIPAL NATURAL ASSETS INITIATIVE: INVESTING IN NATURE

The Municipal Natural Assets Initiative (MNAI) is changing the way Canadian municipalities deliver everyday services, increasing the quality and resilience of infrastructure at often lower costs and reduced risk. The MNAI team provides scientific, economic and municipal expertise to support local governments in identifying, valuing and accounting for natural assets in their financial planning and asset management programs, and in developing leading-edge, sustainable and climate resilient infrastructure.

## Decision-Makers Summary Series

This summary is part of a series designed to provide local governments with easy-to-access information to help with adoption of municipal natural asset management. These summaries have been drawn from five reports published by the MNAI in 2017-2019. Copies of these reports and complete lists of sources are available at: [www.mnai.ca](http://www.mnai.ca). Municipal decision-makers, staff with responsibility for managing municipal assets, and financial and accounting staff will find the information helpful in building and scaling up their own municipal natural asset management efforts. Further, it may be of interest to asset managers in provincial and federal governments, natural resource companies, and universities as early evidence suggests municipal natural asset management approaches can be adapted in other decision-making contexts.<sup>1</sup>

Barriers and opportunities in current planning practices can affect the refinement, replication and scaling up of municipal natural asset management. Planners have a potentially key role to play due to their diverse and interdisciplinary approaches, particularly in land-use decisions. This summary proposes twelve action steps to advance municipal natural asset management through the planning profession.

# MNAI Summary Report Series

1. *What are Municipal Natural Assets? – Defining and Scoping Municipal Natural Assets*
2. *Advancing Municipal Natural Asset Management Through Financial Planning and Reporting: Learning from the Town of Gibsons' Experience*
3. *Advancing Municipal Natural Asset Management Through Collaborative Strategies for Private Lands*
4. *Advancing Municipal Natural Asset Management Through Professional Planning: Twelve Action Steps*
5. *Advancing Municipal Natural Asset Management Through Infrastructure Funding Opportunities*

Copies of these reports, complete with sources and many other resources are available at [www.mnai.ca](http://www.mnai.ca).

## Acknowledgements

This is a summary of *Identifying Barriers and Opportunities with Professional Planning Practice in Ontario*, prepared by Michael Drescher, Zoe Milligan, Rachael C. Edwards and Pierre Filion of University of Waterloo and in collaboration with the MNAI technical team.

Summary prepared by: Meg Ogden & Sara Justine Wilson

Reviewers: Michael Drescher, Zoe Milligan & Stephanie Cairns

Funders and Supporters: This summary series has been financially supported by the Climate Change Adaptation Program of Natural Resources Canada, the B.C. Ministry of Municipal Affairs and Housing, and the Friends of the Greenbelt Foundation.

# Introduction

Canadian local governments are seeking new strategies to deliver their core services in financially and environmentally sustainable ways, including implementing municipal asset management as a key tool to manage infrastructure. Municipalities are increasingly recognizing that natural assets<sup>2</sup> such as aquifers, forests, streams and foreshores can provide equivalent or better services to many engineered assets. Municipal natural asset management offers a sustainable solution to the multifaceted problems of supplying municipal services in the face of aging infrastructure, urban growth, and declining budgets. As this approach is being implemented in a growing number of Canadian municipalities, it is important to support the development of best practices and an understanding of how to facilitate widespread adoption of municipal natural asset management.

This summary report highlights the factors affecting municipal natural asset management from a planning perspective, including the role of urban planners, and the top five barriers and opportunities in professional planning norms and standards that may affect the refinement, replication, and scaling up of municipal natural asset management projects.

## What is Municipal Natural Asset Management?

Municipal natural asset management regards natural features through an asset management lens, focussing on their function in providing municipally-relevant ecosystem services. It recognizes that deliberate protection and management of these municipal natural assets (Box 1) can provide sustainable municipal services over the long-term, with no capital cost and at a fraction of the maintenance or operating costs of an engineered replacement.

### Box 1: Defining municipal natural assets

“Municipal natural assets” refer to the stocks of natural resources or ecosystems that contribute to the provision of one or more services required for the health, well-being and long-term sustainability of a community and its residents<sup>3</sup>.

## How can Planning Support Municipal Natural Asset Management?

Defining planners and planning is challenging as the profession encompasses a diverse range of fields and practitioner roles. Nonetheless, the Canadian Institute of Planners (CIP) defines planning as:

*“the scientific, aesthetic and orderly disposition of land, resources, facilities and services with a view to securing the physical, economic and social efficiency and well-being of urban and rural communities.”<sup>4</sup>*

More simply, planning consists of a wide range of public interventions, including land use designation and natural resource conservation – both of which are directly linked to municipal natural asset management.

Planners take on several roles with the potential to impact the success of municipal natural asset







management. They prepare and adopt land-use plans and bylaws, directly influencing not only development, but also natural asset preservation and prioritization. They are also heavily involved in the formulation of Official Community Plans or Official Plans, identifying long-term visions for municipalities, which may include natural asset-related strategies. Provincial and territorial planning institutes and associations support these roles by upholding the standards of CIP and – more importantly – those of specific provinces and territories<sup>5</sup>.

Land use, environmental and policy-based planners are most likely to be involved in municipal natural asset management. They can take on a leadership role – even championing the process– and contribute to its success with skills in facilitation, policy generation and technical expertise.

## The Facilitative and Management Role

Planners tend to be generalists – viewing processes and projects through a ‘big picture’ lens – and their work tends to be multidisciplinary in nature. They need to consider and understand various stakeholder interests, disciplines and concepts, so they can facilitate collaboration, compile and analyze information, and generate holistic options. They also effectively explore management issues and identify desired management outcomes. Particularly, planners can evaluate alignment of municipal natural asset management strategies with growth targets, assessing if strategies are realistic amidst land use development pressures and conflicts. They can also recruit expertise for tasks like inventories and soliciting feedback on municipal natural asset management plans.

## The Policy Role

As key players in planning policy review and reform, planners can influence alignment of policies with municipal natural asset management. They play an advisory role on high-level provincial policies like planning acts - such as the Ontario Planning Act or Conservation Authorities Act (Box 2) - working with relevant ministries and organizations like Federation of Canadian Municipalities (FCM). At the more local level, planners play a bottom-up role. They engage with the public and determine best courses of action, present to senior municipal management and Council, help shift land use designations and bylaws, and confirm how municipal natural asset management can best influence day-to-day, practical decision-making. They can then aid implementation by leveraging or linking municipal natural asset management to existing ‘stepping stone’ policies.

## The Technical Role

Planners may help to inventory, delineate and assess conditions of natural assets. This is often the case in sub-watershed planning and physical management of natural assets.

## Box 2: Planning in Ontario

The Ontario Planning Act provides the foundation for planning in Ontario. It outlines the Province's interests, visions and goals, and sets up a basic framework including government roles and municipal planning requirements. Under the Planning Act's authority, the Provincial Policy Statement (PPS)<sup>6</sup> provides policy directions on community development and growth, including land use planning and development. The Act also mandates municipalities to adapt an Official Plan<sup>7</sup> including land use objectives, policies on growth management, services and infrastructure, community improvement initiatives, and zoning by-laws.

The Conservation Authorities Act mandates Conservation Authorities (CAs) "to provide programs and services designed to further the conservation, restoration, development and management of natural resources other than gas, oil, coal and minerals". Historically focused on water management, CAs are now critical actors in local and cross-jurisdictional planning decisions and natural asset protection, with broader linkages to human wellbeing.

Note: The Ontario government has introduced legislation that will make changes to the Planning Act, Development Charges, and the Conservations Authorities Act (e.g. Bill 108).

# Primary Barriers & Opportunities to Municipal Natural Asset Management

Research and interviews conducted between 2017 and 2018 with planners, municipalities, Conservation Authorities and MNAI convening partners, identified the top five barriers and opportunities for advancing municipal natural asset management through the planning profession (Box 3.)<sup>8</sup>

BOX 3: BARRIERS	
B1	Planning policies do not generally see natural features as services providing assets
B2	Natural features are seen as more complex and riskier than engineered assets
B3	Rigid roles and responsibilities hinder inter-departmental and inter-jurisdictional collaboration
B4	Balancing stakeholder interests can lead to adoption of misaligned priorities with municipal natural asset management
B5	Current municipal resource allocations contribute to perceptions of lacking resources
OPPORTUNITIES	
O1	Champions are needed to push municipal natural asset management through municipal Council and departments
O2	Watershed management organizations, such as Conservation Authorities, provide cross-jurisdictional foundations to collaborate and encourage systems-thinking
O3	Current planning policies' sustainability and natural protection mandates provide stepping stones for municipal natural asset management processes
O4	Other government program and interest group resources can greatly reduce pressures on municipalities
O5	Official Community Plan or Official Plan revision cycles allow for greater integration of municipal natural asset management-supportive policies



# Looking Forward: Twelve Action Steps

Planners can take deliberate action steps during three distinct phases to address these barriers and opportunities, and advance municipal natural asset management (Figure 1).

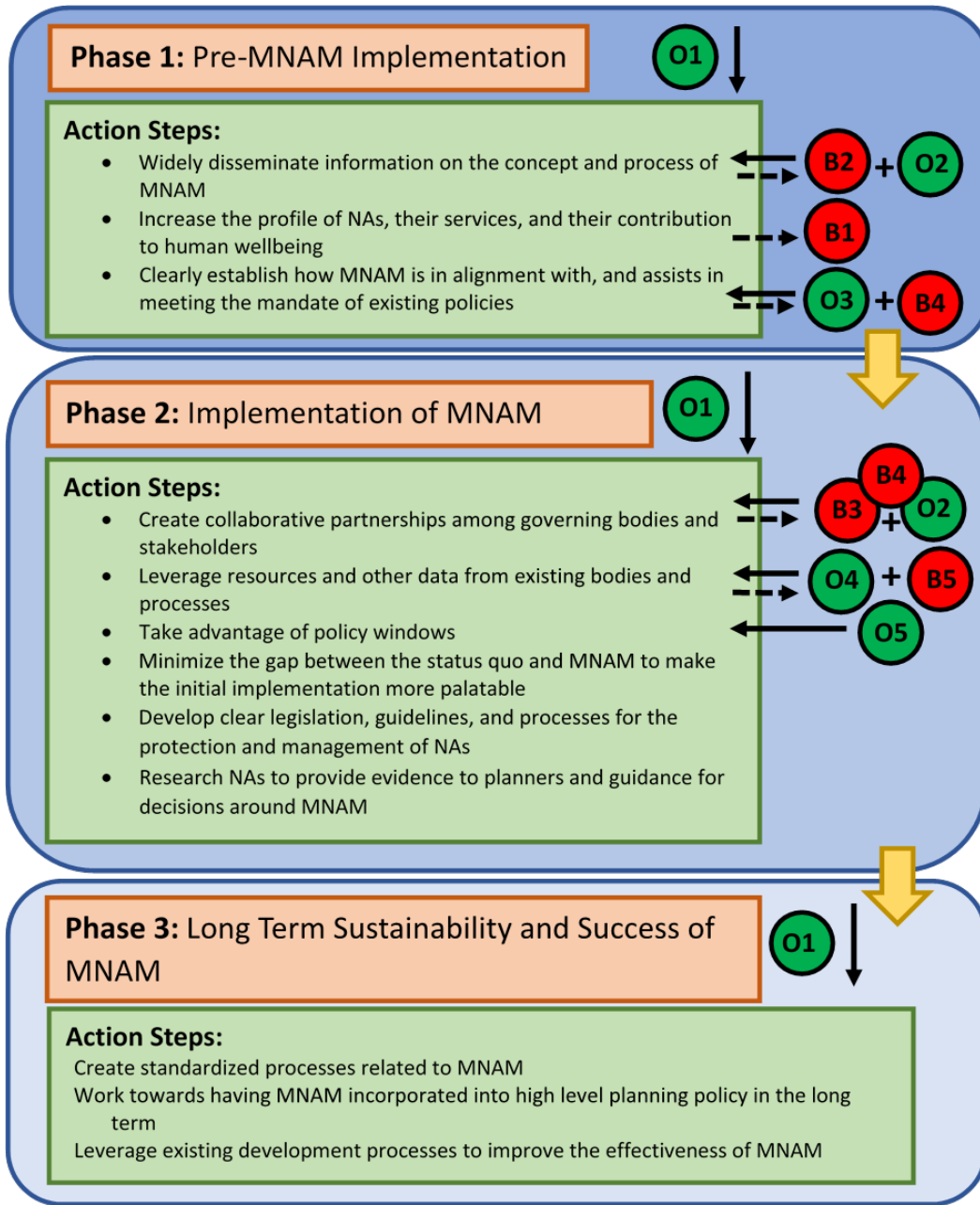


Figure 1: The three phases of Municipal Natural Asset Management implementation, their associated action steps, and specific barriers/opportunities addressed by these actions. Dashed arrows represent a barrier that is being addressed by associated action step and solid arrows represent opportunities that are being utilized by the associated action step. All action steps would be enhanced by utilizing Opportunity 1, a strong champion. Note that this figure captures only the most direct links between barriers/opportunities and action steps, although many connections exist.

# Phase 1: Pre-Municipal Natural Asset Management Implementation

## 1. Widely disseminate information on the concept & process

Conferences, expos and other knowledge-sharing opportunities targeting a wide range of stakeholders can be good places to increase awareness, reduce risk perceptions and gain support around municipal natural asset management. Stakeholders could be Conservation Authorities, local interest groups, municipal senior management and other decision-makers, environmental planners, and organizations like FCM. Information useful to them includes: lists of relevant projects, successes, and lessons learned; a blue-print of the municipal natural asset management process; a balance sheet of costs versus benefits; and demonstration of how the concept and processes align with jurisdictional and departmental mandates.

## 2. Increase the profile of natural assets, their services & contribution to human well-being

Creative, novel education tools and campaigns can improve public awareness of nature and its role in services both within a municipality and across jurisdictions. These tools and campaigns should emphasize nature's interconnectedness to instill a systems-level understanding. They can compare natural to engineered assets providing similar services, emphasizing the need to both protect and manage natural assets.

## 3. Clearly establish alignment with existing policy mandates

Municipalities can leverage relevant, existing policies as stepping stones to promote municipal natural asset management.<sup>9</sup> They could also develop inventories of the linkages between municipal natural asset management and such policies, to support and broaden awareness.

# Phase 2: Implementation of Municipal Natural Asset Management

## 4. Create collaborative partnerships among governing bodies & stakeholders

Implementing municipal natural asset management involves balancing stakeholders' needs and departmental collaboration. Partnerships involving various organizations and stakeholders can allow the sharing of diverse perspectives, knowledge and best practices, and cross-jurisdictional communication. Stakeholders can formalize partnerships through recurring structures such as working committees to ensure lasting results. Municipalities could also create internal collaboration opportunities, which may require departmental restructuring or knowledge brokers.

## 5. Leverage resources & other data from existing bodies & processes

To address resource constraints, municipalities can take advantage of natural feature inventories already conducted by provincial governments, Conservation Authorities, neighbouring municipalities and interest groups.<sup>10</sup> Advocacy groups can also provide support through overall guidance, public education programs, research and data collection, and funding.<sup>11</sup>



## **6. Take advantage of policy windows**

Mandated Official Community Plan or Official Plan review processes provide opportunities to introduce and include municipal natural asset management policies. Municipalities can also secure the support of commissioners, lobby Council directly and motivate the public around extreme weather and climate change events.

## **7. Minimize gaps from the status quo for more palatable implementation**

It may prove most effective to start off small and gradual rather than too ambitious. Risk averse municipalities can initially focus on natural assets under their exclusive control or those assets that provide municipal services that are readily identified and measured. They can also focus on the most prominent or visible natural assets to tap into potentially existing public acceptance and support<sup>12</sup>.

## **8. Develop clear legislation, guidelines & processes**

Concise and straightforward regulations and guidelines should ease the undertaking of municipal natural asset management. They should include a long-term vision and plan, and outline clear steps focused on performance goals. They should also include clear strategies for cross-jurisdictional natural feature management.<sup>13</sup>

## **9. Research natural assets to provide evidence & guidance for decisions**

Municipalities and interested parties can inventory specific services provided by each natural feature. They can identify key linkages between public and private natural assets, neighbouring land uses and their own natural assets, and between municipalities and ecosystems. The benefits of enhancing historically degraded natural assets could provide further evidence.

## Phase 3: Long-term Sustainability and Success of Municipal Natural Asset Management

### **10. Create standardized long-term processes**

Standardized processes for inventorying, valuing, monitoring, managing and maintaining natural assets can ease implementation. They should be flexible to satisfy specific local requirements and take advantage of local opportunities. They should also focus on attaining best practices, to develop a toolkit or guidebook for municipal natural asset management implementation.

### **11. Work to incorporate the concept & processes into long-term high-level planning policies**

Municipalities can work to formally embed municipal natural asset management in higher level provincial policy statements and planning acts, to secure powers and evidence needed for its effective implementation. References in these policies should enable or require, rather than just encourage municipalities to carry out municipal natural asset management.

### **12. Leverage existing development processes to improve effectiveness**

Through existing development processes, land use planners could require developers to secure funds to maintain and conserve development land abutting or including natural assets. They could also put in place long-term monitoring systems.<sup>14</sup>



# Endnotes

1. A description of broader tools and lessons related to municipal asset management are documented in Town of Gibsons, 2014 and Brooke et al, 2017.
2. Natural assets refer to natural resources and ecosystems that contribute to provision of one more services required for the health, economic performance and long-term sustainability of a community and its residents.
3. Municipal Natural Assets Initiative, 2017.
4. The Ontario Professional Planners Institute (OPPI) has a slightly adapted definition: “Planning includes the scientific, aesthetic and orderly disposition of land, resources, facilities and services, with a view to securing physical, economic and social efficiency, a sound environment, health and well-being”.
5. Provincial crown land is always provincial responsibility (there are also federal lands, but much less so in the provinces), as are natural resources.
6. Government of Ontario, 2014.
7. Government of Ontario, 2017.
8. See Drescher et al., 2018 for a detailed discussion of barriers and opportunities, including the methodology around their determination (Appendix 1) and a complete list of all those considered (Appendix 2).
9. Ontario’s PPS, for instance, recognizes that the Province must “protect essential ecological processes” and “conserve land and resources (to avoid)... costly remedial measures”.
10. Such information exchange may require carefully constructed data sharing agreements stipulating data access and use rights, to ensure ethical data use.
11. The Canadian Institute of Planners, for example, recently initiated a training series to help planners gain knowledge and skills in formal asset management.
12. For example, initiatives focused on water management and resources seem to garner high interest and success for municipalities implementing municipal natural asset management.
13. One example is incentive schemes for natural asset protection and conservation on private lands.
14. This is possible in Ontario, where municipalities can include such conditions in development applications.



## Convening Partners



**Smart Prosperity  
Institute**

**Brooke  
& Associates**  
CONSULTING



**DAVID SUZUKI  
FOUNDATION**  
One nature.



Possibility grows here.

GET INVOLVED

**MNAI.CA**

Email [info.mnai@gmail.com](mailto:info.mnai@gmail.com) |  Municipal Natural Assets



**Smart Prosperity  
Institute**

**Brooke  
& Associates**  
CONSULTING



**DAVID SUZUKI  
FOUNDATION**  
One nature.



Possibility grows here.

MNAI wants to thank our funders for the summary paper series

- Climate Change Adaptation Program of Natural Resources Canada
- Ministry of Municipal Affairs and Housing, Province of British Columbia