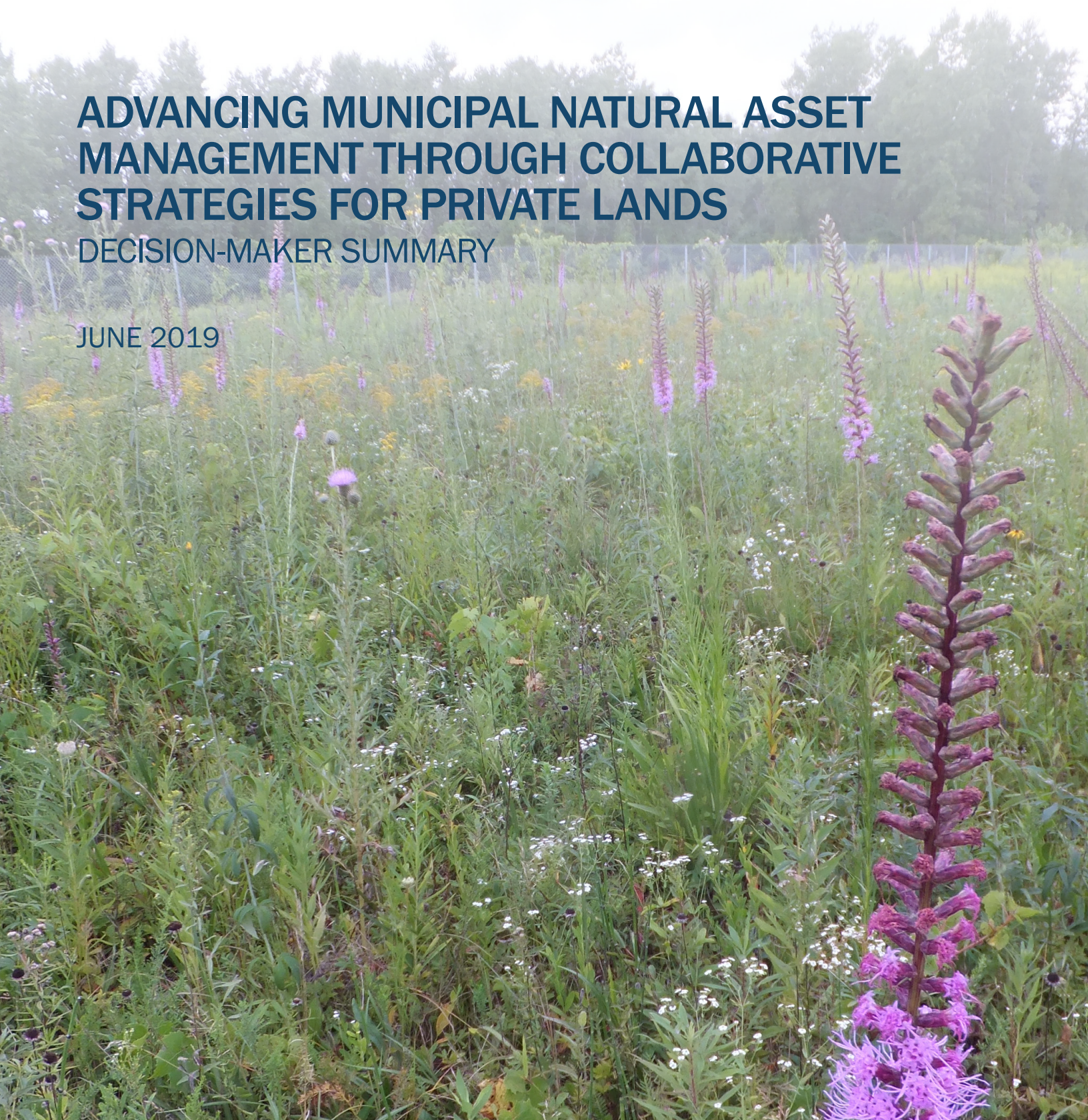




ADVANCING MUNICIPAL NATURAL ASSET MANAGEMENT THROUGH COLLABORATIVE STRATEGIES FOR PRIVATE LANDS

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. 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 contexts¹.

This summary focuses on approaches to advancing municipal natural asset management through collaborative strategies with private landowners. Natural asset management requires a whole systems approach including both public and private lands. However, natural asset management on private lands has historically been challenging as private landowners are likely to require incentives to manage for public benefits if this involves incurring private costs. Various policy options already exist or can be modified to provide these incentives. Land use tools, incentives, fees, charges, and in-lieu payments have already proven effective in Canada and elsewhere. Looking forward, the summary also includes recommendations on how to encourage this conversation further.

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.

Acknowledgements

This is a summary of *Towards a Collaborative Strategy for Municipal Natural Asset Management: Private Lands*, prepared by Smart Prosperity Institute in collaboration with the MNAI technical team.

Summary prepared by: Meg Ogden, Sara Justine Wilson & 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 assets² such as aquifers, forests, streams and foreshores can provide equivalent or better services than 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 how local governments can include private lands and engage private landowners in a comprehensive municipal natural asset management framework, and explains the benefits of a whole-system approach.

What is Municipal Natural Asset Management & Why Engage Private Landowners?

Effective municipal natural asset management, as defined in Box 1, cannot be undertaken in a fragmented manner. A single natural asset such as a wetland provides multiple services (e.g. water storage and filtration, groundwater recharge, natural wildlife habitat), and its catchment area may be managed by several different jurisdictions and/or owned by different private landowners, organizations and governments. If a municipality owns or manages a portion of a watershed catchment, the sustainable supply of its natural services depends on the practices adopted by private land owners, stakeholders and other governments. As a result, local governments must look beyond the assets that they directly own and/or manage to ensure effective municipal natural asset management.



Box 1: Definitions

Municipal natural assets (MNAs) refer to the stocks of natural resources or ecosystems that contribute to the provision of one or more services required for the healthy, well-being and long-term sustainability of a community and its residents.

Municipal natural asset management views MNAs through an infrastructure asset management lens and generally considers those services provided by MNAs that would otherwise need to be provided by a municipality, regional government or other forms of government.

Managing natural assets on private lands has historically been a challenge. In fact, private ownership of certain ecosystems has been identified as a key factor driving global decline of certain ecosystem services.³ In Canada, this is prevalent in the more densely populated areas found in the southern regions and in provinces with high percentages of private land ownership.⁴

A privately-owned forest may provide services such as water quality regulation and air pollution mitigation which are valuable public services. However, a private landowner often gains more monetary value from cutting the forest for timber or agricultural conversion. Therefore, in order to maintain natural assets, local governments may need to implement financial and/or regulatory tools such as land use regulations, incentives, payment programs, and/or user fees to improve the benefits of conservation for private landowners (Figure 1).

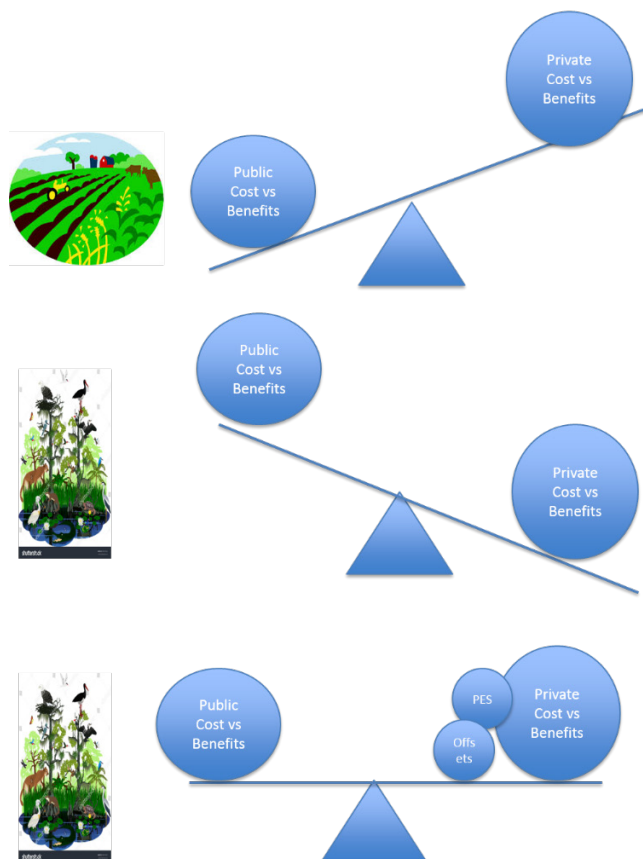


Figure 1: Balancing cost and benefits of private lands and public services

Collaborative Strategies for Private Lands

A range of policies can be used to protect natural assets and ecosystem services on private lands (Figure 2), including land acquisition, land use planning, economic instruments, regulations, and public education. Key land use planning, regulatory tools, and economic policies are outlined below.⁵

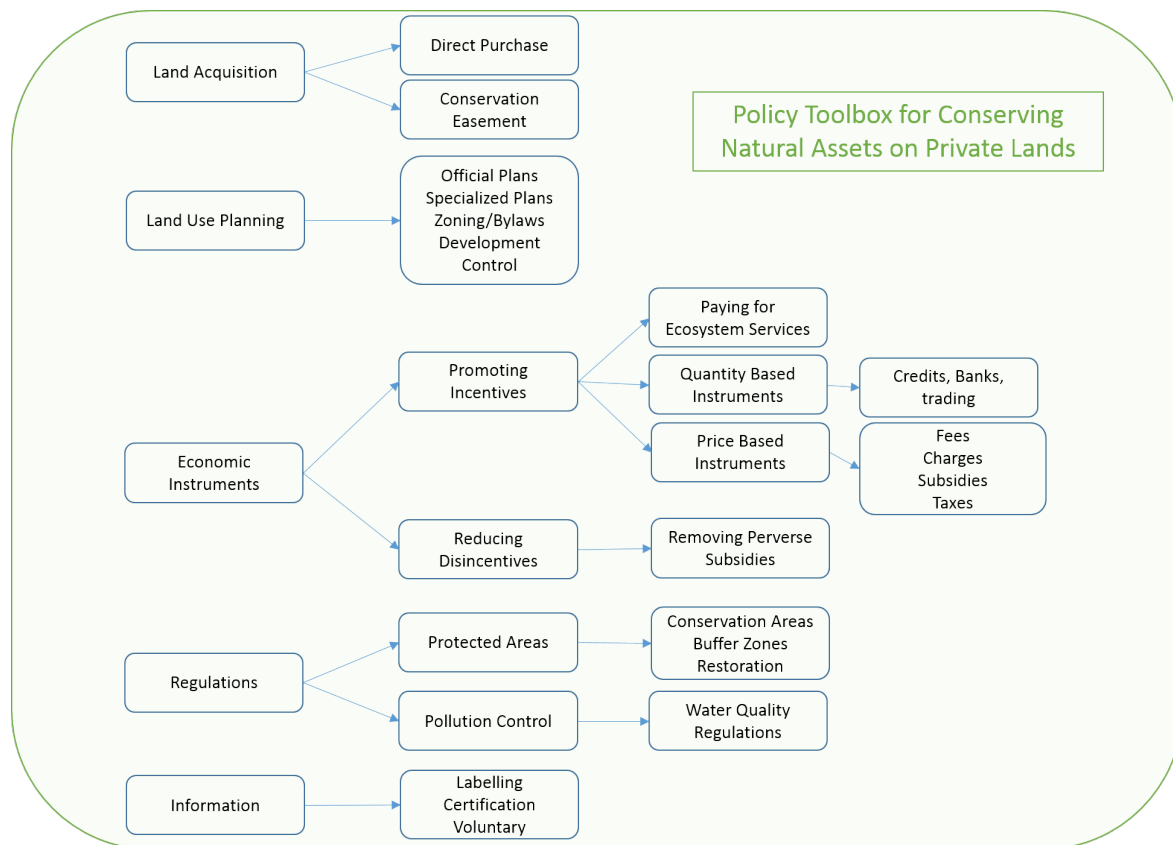


Figure 2: Policy Toolbox for Conserving Natural Assets on Private Lands

Land Acquisition

Direct purchases

There is one straightforward way to ensure natural assets on private lands are managed to protect ecosystem services for public good: turn them into public lands. Canadian cities like Surrey, BC are taking this route. Surrey has established a strategic framework for land acquisitions by identifying the natural areas network required to preserve their municipal ecosystem services. They identified over 10,000 acres of land required to maintain its biodiversity, ecosystems and functions supporting wildlife and people. However, funding can be a major challenge. For example, the Capital Regional District in B.C. manages a Land Acquisition Fund generated through a residential household levy used to purchase land for regional parks and trails.⁶

Conservation easements

When direct land purchases are not possible, conservation easements provide another option (Box 2). Conservation easements are legally binding agreements between a landowner and a third-party agency (e.g. government body, conservation organization or land trust), in which certain private property rights are transferred to the agency. They outline specific land restrictions and the process by which they are enforced and monitored, as well as landowner rights and financial compensation. Easements on agricultural lands are designed so as not to interfere with normal farming practices. Ducks Unlimited Canada, for example, accepts conservation easements for wetland protection in Ontario, Manitoba, Saskatchewan and Alberta.⁷

Box 2: Nature United/ The Nature Conservancy⁸

The Nature Conservancy (TNC) is the largest non-profit easement holder in the U.S. and its Canadian counterpart (Nature United) has protected over 2.8 million acres in Canada. TNC's experiences with easements demonstrate several benefits: maintenance of private land and rights, in perpetuity legal guarantees, donation or purchase of rights, income tax credits or deductions (e.g. Canada's Ecological Gifts program),⁹ and protection of ecosystem services with public value and cost effectiveness. Local governments are well-suited to attain easements. They are stable management agents capable of ensuring long-term implementation. Easements can also support other municipal conservation goals.

Conservation easements are, however, voluntary and the financial benefits from them may not be enough to incentivize landowners to choose this option. Furthermore, their effectiveness depends on third party agency capacity and resources to ensure agreement conditions are enforced.

Land use planning

Land use planning varies among provinces across Canada, but generally, official plans, zoning bylaws and other local plans can help guide community vision and ensure future development is done in accordance with sound conservation policies (Box 3).

Box 3: Land Use Planning Tools¹⁰

Official (Community) Plans¹¹ are formal, high-level planning documents that set out a long-term vision, identify strategies to address major social, economic and environmental challenges, and guide all other community plans and bylaws. They direct all development and growth, so they form an important tool to identify, protect and manage natural assets within the municipality. Some frameworks are already in place to promote natural asset protection through Official Plans – for instance, the City of Ottawa (Section 3.1.1) ensures any expansion of its urban areas protects natural heritage features.

Municipalities can also develop **specialized plans** pertaining to specific local matters, including natural assets, such as Ottawa's urban forest management plans.

Zoning is a regulatory tool that can be used to control private land development. However, it cannot be easily changed nor applied to lands unless they are subject to new or re-development processes. As such, a natural asset that is not under an environmental protection zone would likely require a zoning by-law amendment or update.

Bylaws have greater potential to protect natural assets on private lands as they can be enacted in accordance with provincial planning acts. Ontario Municipal Act amendments (under Section 10(2)) now allow municipalities to create climate change mitigation bylaws. **Site Plan Control Bylaws** can provide additional control but are similarly limited.

At the time of subdivision, municipalities can use **development control** - through **subdivision controls, development permits and development agreements** – albeit with the same limitations as zoning. The Toronto Green Standard's Tier 1 requirements, for example, include criteria for ecosystem services like air and water quality.

Economic Instruments - Promoting Incentives

Payments for ecosystem services

One of the most common mechanisms used to encourage private landowners to protect natural assets is through payments for ecosystem services (PES). PES programs are beneficiary-pays systems, where private landowners receive payments based on a single grant or support payments, to encourage them to protect natural assets. For example, the non-profit organization, ALUS Canada, channels funding directly to local farmers and ranchers protecting ecosystem services on working agricultural landscapes. ALUS has active projects in several provinces including Alberta, Saskatchewan, Manitoba, Ontario, Quebec and Prince Edward Island.

In Ontario, there are a number of payment programs already in place for water and biodiversity conservation, including the Ontario Species at Risk Farm Incentive Program and the Ontario Land Stewardship and Habitat Restoration Program (LSHRP). For example, under the LSHRP, landowners can receive up to \$20,000 in matching funds for a project that maintains or restores habitats that benefit fish, animals and/or plants (e.g. stream restoration, upland improvements, wetland restoration, invasive species control).¹²

PES programs often lack monitoring and measurement, and can be impacted by unstable flows of funding resulting from changes in government. These challenges can be addressed by improving program design, establishing baseline conditions, and implementation of programs with complementary policy tools.

Taxes

Tax incentives are support payments that landowners receive as credits toward a tax payment rather than a direct subsidy to a landowner. Tax incentive programs for natural assets provide landowners with credits toward their tax payments in exchange for the protection or improved management of their natural assets. In Canada, the Federal Ecological Gifts program is a good example of a tax incentive PES program that provides tax deductions to landowners who either donate ecologically sensitive land or donate the rights to land through conservation easements.

The province of Ontario provides a number of tax incentives for private landowners including the Conservation Land Tax Incentive Program (CLTIP), which offers up to 100 per cent in property tax exemptions for land with important natural heritage such as provincially significant wetlands, areas of natural and scientific interest, Niagara Escarpment natural areas, Community Conservation Lands, and habitats of endangered species.¹³ In British Columbia, Vancouver Island's Natural Area Protection Tax Exemption Program (NAPTEP), provides landowners with an annual 65 per cent exemption on property taxes for the portion of lands protected under a NAPTEP covenant. The Managed Forest Land Tax Incentive program provides a tax incentive whereby landowners pay 25 per cent of the municipal tax rate for forests over four hectares that are managed under a 10-year Managed Forest Plan approved by a certified approver.

Two of the main challenges with tax incentive programs are the administrative burdens, and the level of funding. If the funding does not provide a tax credit benefit of the magnitude required to overcome the initial effort and investment, it is unlikely that a large number of landowners will apply or participate in the program. In addition, tax incentive programs are voluntary, and the impact of the program on the management of the natural asset or ecosystem service requires on-going monitoring and evaluation. All of these challenges can impact the effectiveness of the program in achieving its objectives.

Price-based Instruments

Price-based tools can also be used to protect natural assets and ecosystem services on private lands (Box 4).

Box 4: Price-based Instruments

Environmental user fees are used worldwide, including in Canada, for both discouraging negative environmental impacts and providing a revenue source for governments and private landowners involved in natural resource protection. They hold great potential for financing water systems – especially in Canada where users do not pay the full cost for drinking water and wastewater services.

Depending on provincial planning legislation restrictions, municipalities may require **in-lieu payments from developers** to pay fees for parkland designation or natural asset protection. In the City of Toronto, for example, bylaw requires new or retrofitted building to include a green roof, however, developers have the option to pay a fee-in-lieu which then goes toward grants for non-regulated green roof projects.

Development Cost Charges (DCCs) can also be charged to maintain natural assets. For example, the Town of Gibsons¹⁴ recently amended its DCC Bylaw so that fees fund restoration of certain natural assets servicing new developments.

A **stormwater user fee** system can create a fair, dedicated and sustainable funding stream for municipal stormwater management programs. These funds can be put toward natural asset protection, restoration and enhancement focused on water quality and flooding issues resulting from failing or under-capacity infrastructure.

Quantity-based offsets and trading systems

Offsets and trading systems are growing in popularity as tools for environmental protection. These programs function wherein negative impacts to the environment, which cannot be avoided, are “offset” by environmental protection elsewhere. Examples of environmental trading include carbon sequestration offsets, tradable development rights and quota systems, eco-labelling, environment-certification, and bio-prospecting. In Canada, offsets and trading markets have been slow to develop. However, there are now at least 20 such markets active in Ontario, including Ontario’s Emissions Trading System for NO and SO₂, which was Canada’s first emissions trading system and has successfully reduced industrial emissions.¹⁵

Water quality trading programs are directly linked to private landowners. In Ontario, the South Nation Conservation Authority, the Lake Simcoe Region Conservation Authority, and the Nottawasaga Valley Conservation Authority have implemented water quality trading programs.¹⁶ The purpose of water-quality trading programs is for regulated point source emitters municipal or industrial wastewater and stormwater facilities to either increase their levels of treatment to minimize pollutant loadings or offset their additional discharges by investing in non-point source or point-control projects such as stormwater retrofits or agricultural best management practices elsewhere in the watershed. The South Nation program has reduced phosphorous load by 11,843 kg through 269 best management practice projects. In Southern Ontario, where the land has expansively been developed for agricultural and urban purposes, non-point sources are heavily responsible for elevated levels of nutrients in the water.

Looking forward

A whole ecosystem approach is required to effectively identify, measure and manage natural assets for the ongoing, sustainable provision of their municipal services and benefits. The information provided in this paper is a starting point for local governments to assess the tools and economic instruments that can be used to engage and incentivize private landowners to protect and restore natural assets. Private landowners must be involved in the process of managing natural assets through engagement and consultation to implement successful natural asset management programs and to increase the awareness of the importance of community-based management of natural assets. The following recommendations are designed to encourage further engagement with communities across Canada:

1. Invite them to the table

Bring private landowners into the conversation early. Landowners stewarding different land types in different regions will face different barriers. This will require a ‘boots on the ground’ effort to identify the barriers, and then develop the most appropriate municipal natural asset management toolkit.

2. Appreciate what you have

Land use planning tools, development control, user fees and payments or grant programs are already in use today by local governments. They may simply need a new direction or minor tweak to create an effective toolkit.

3. Look at local environmental markets

Local environmental markets in Canada hold great potential for municipal natural asset management. Ontario’s water quality trading programs, the ALUS Canada payment systems and the Nature Conservancy Water Funds all provide best practices for providing financing to private landowners.

4. Seek out partnerships and support

A comprehensive municipal natural asset management approach including governments and private landowners requires strong partnerships. The federal government’s budget allocations for green infrastructure and climate change resiliency provide great opportunities for partnerships and financial support.

5. Remember: service, service, service!

Collaborative approaches focused on service rather than ownership can improve inter-jurisdictional issues surrounding natural assets. The Town of Gibsons’ current investments in maintaining Charman Creek and its stormwater management services, demonstrates the value of ensuring long-term benefits in services to the community.

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. IISD (Anantha Kumar Duraiappah), 2006.
4. Approximately 11% the country's total landmass is privately owned. For further details, see <http://www.ducks.ca/our-work/landowners/> and <http://www.thecanadianencyclopedia.ca/en/article/crown-land/>.
5. Although not discussed in detail here, regulations are often useful when a set performance level must be met – for example, a bylaw states that development in a sensitive foreshore areas is not permitted.
6. Another relevant BC example can be explored at: <http://www.islandstrustfund.bc.ca/initiatives/privateconservation.aspx>
7. For further details, see: <http://www.ducks.ca/resources/landowners/conservation-easements/>.
8. For further details, see: <https://www.nature.org/en-us/about-us/who-we-are/how-we-work/private-lands-conservation/>
9. For further details, see: <https://www.ec.gc.ca/pde-egp/default.asp?lang=En&n=FCD2A728-1>.
10. For further details, see another 2019 decision-maker summary *Advancing Municipal Natural Asset Management through Professional Planning: Twelve Action Steps*.
11. In BC, under the *Local Government Act*, they are called Official Community Plans (see <https://www2.gov.bc.ca/gov/content/governments/local-governments/planning-land-use/local-government-planning/official-community-plans> for further details). In Ontario, the *Planning Act* sets out the provisions for Official Plans and other planning policies.
12. Sustainable Prosperity. 2015. Ontario's Environmental Markets: Creating Price Signals to Protect our Natural Environment; <http://institute.smartprosperity.ca/sites/default/files/ontariosenvironmentalmarkets.pdf>
13. For further details, see: <https://www.ontario.ca/page/conservation-land-tax-incentive-program>
14. Town of Gibsons, 2017. For further details on DCCs, see http://www.cscd.gov.bc.ca/lgd/finance/development_cost_charges.htm.
15. Smart Prosperity Institute (Mercedes Marcano), 2015.
16. For further details, see: <http://www.nation.on.ca/water/grant-programs/ottawa-rural-clean-water-program>



Convening Partners



**Smart Prosperity
Institute**

**Brooke
& Associates**
CONSULTING



Possibility grows here.

GET INVOLVED

MNAI.CA

Email info.mnai@gmail.com |  Municipal Natural Assets



**Smart Prosperity
Institute**

**Brooke
& Associates**
CONSULTING



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