

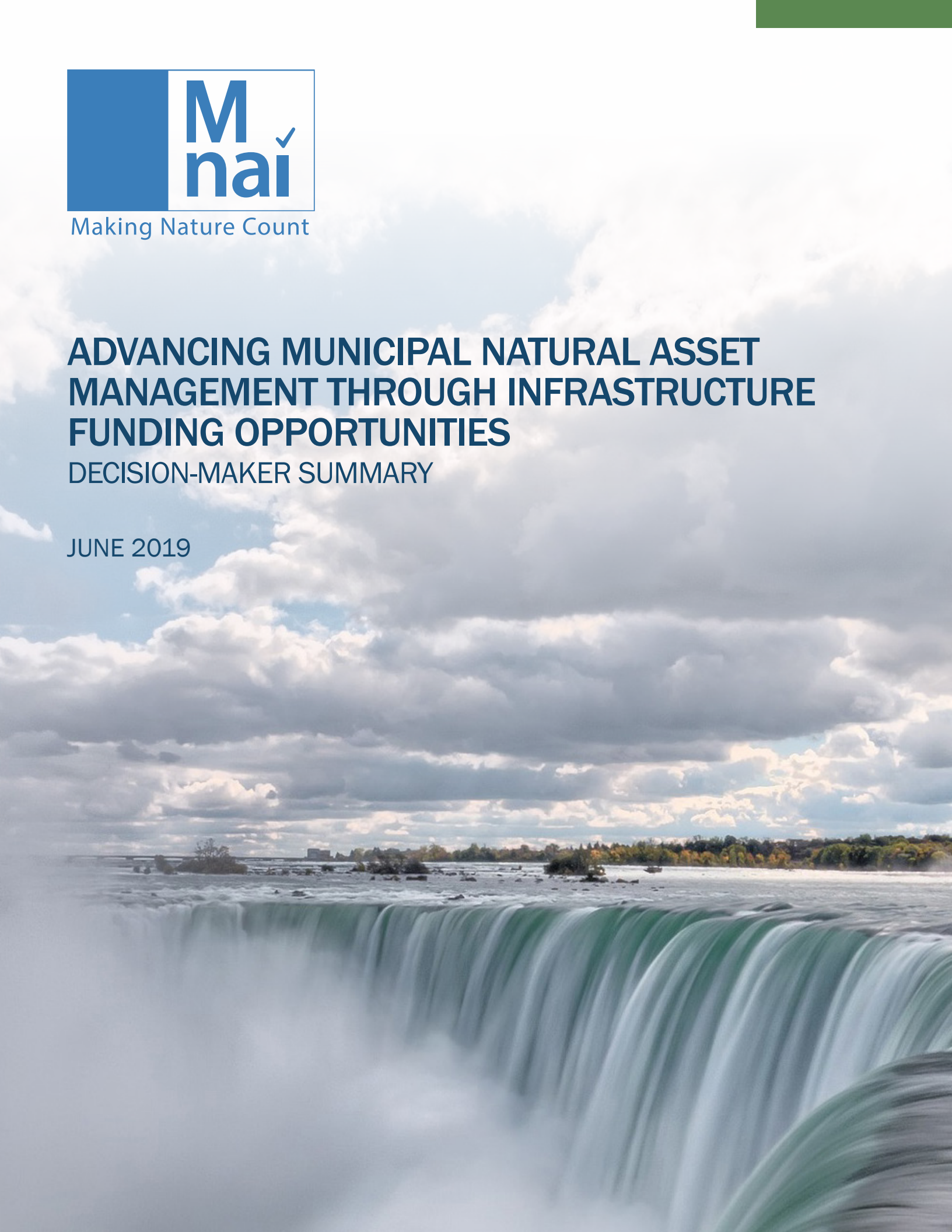


Making Nature Count

ADVANCING MUNICIPAL NATURAL ASSET MANAGEMENT THROUGH INFRASTRUCTURE FUNDING OPPORTUNITIES

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 between 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 contexts.¹

This summary reviews six of Canada's major infrastructure funding programs through the lens of a manager seeking to fund a municipal natural asset project. It identifies key considerations in determining project eligibility and terms of funding, alongside an easy-to-use overview of the programs. It also provides further observations pertaining to their relevance for municipal natural asset management, including funded projects.

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 *Opportunities to Fund Municipal Natural Asset Management Projects: An Overview of Six Federal Infrastructure Funding Programs*, prepared by Smart Prosperity Institute in collaboration with the MNAI technical team.

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Introduction

Canadian local governments are seeking new strategies to deliver their core services in more financially and environmentally sustainable ways, including turning to infrastructure asset management as a key tool to manage infrastructure. Municipalities are increasingly recognizing that natural assets 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.

Growing evidence of the value proposition of municipal natural asset management provides the rationale for funding of natural assets through infrastructure funding programs. Infrastructure funding programs are designed to deliver and improve services for communities. Investing in natural assets and the management of natural assets is often a cost-effective approach. However, eligibility requirements, such as the restricting of funding to tangible capital assets under some infrastructure programs, can make it potentially more difficult to fund specific investments in natural assets projects and natural asset management. This summary provides an overview of Canada's major infrastructure funding programs that offer potential opportunities to fund municipal natural asset management.

Advancing Municipal Natural Asset Management through Infrastructure Funding Opportunities

A survey of federally-funded infrastructure programs was undertaken to assess current opportunities for funding municipal natural asset management in Canada. The results identified six infrastructure funding programs including:

- Investing in Canada Infrastructure Program - Green Infrastructure Stream
- Disaster Mitigation and Adaptation Fund
- Canada Infrastructure Bank
- Federal Gas Tax Fund
- Green Municipal Fund
- Municipalities for Climate Innovation Program

The review of these opportunities included considering whether the program restricted funding to tangible capital assets as currently defined by the Public Sector Accounting Board (Box 1), or includes natural infrastructure as a capital asset. The survey also reviewed eligible expenditures, assessments required, minimum cost thresholds, project bundling opportunities, delivery of funding and matching funds required. These features are summarized for each of the programs in Table 1. These features are summarized in Table 1.



Box 1: Tangible Capital Assets and Natural Assets

The definition of tangible capital assets under Generally Accepted Accounting Principles of the Public Sector Accounting Board currently excludes from recognition inherited natural resources such as forests, water, and mineral resources, in part on the presumption that the costs, benefits, and economic value of such items cannot be reasonably and verifiably quantified using existing methods.

Current accounting standards allow recognition only for purchased natural assets where they meet certain criteria.

For further discussion see Report on the Public Meeting of the Public Sector Accounting Discussion Group November 18, 2016, p.15-24.

Table 1

Investing in Canada Plan						
<i>Investing in Canada Infrastructure Program - Green Infrastructure Stream</i>	Program Restricted to PSAB “Tangible Capital Assets”?	Land Acquisition?	Climate Lens Assessment?	Minimum Project Threshold?	Maximum Federal Contribution?	Bundling/Joint Applications?
	N	N	Y	N	Y	N/A
	Eligible Projects:					
	<ul style="list-style-type: none"> Eligible projects support public infrastructure defined as tangible capital assets primarily for public use and/or benefit. For the purpose of accessing ICIP funds, INFC considers natural infrastructure projects to be capital assets. Natural infrastructure refers to the use of naturally occurring resources (e.g aquifer, wetland, forest, shoreline etc.) and engineered use of natural resources (e.g. green roofs, rain gardens, trees) to deliver infrastructure services or to complement grey infrastructure services, or to adapt public infrastructure to the impacts of climate change and climate-related disaster mitigation. The two sub streams (Adaptation, Resilience, and Disaster Mitigation; and Environmental Quality) support respectively: <ul style="list-style-type: none"> Traditional built and natural infrastructure projects that will result in increased infrastructure capacity to withstand and adapt to climate change impacts and climate-related disaster mitigation; and Infrastructure projects that will result in increased capacity to treat and manage water and wastewater, and capacity to reduce or remediate soil and air pollutants. Funding includes investments in natural infrastructure 					
Criteria:						
<ul style="list-style-type: none"> Meet one or more outcomes including <u>increased</u>: <ul style="list-style-type: none"> Structural capacity and/or increased natural capacity to adapt to climate change impacts, natural disasters and/or extreme weather events Capacity to treat and/or manage wastewater and stormwater Access to potable water Capacity to reduce and/or remediate soil and/or air pollutants Climate lens assessment is required - costs eligible for reimbursement for approved projects. 						
Eligible expenditures and matching contributions:						
<ul style="list-style-type: none"> Maximum contributions to local and regional governments: 40% of eligible expenditures from federal government, minimum one third from provincial. 						

Disaster Mitigation and Adaptation Fund (DMAF)	Program Restricted to PSAB “Tangible Capital Assets”?	Land Acquisition?	Climate Lens Assessment?	Minimum Project Threshold?	Maximum Federal Contribution?	Bundling/Joint Applications?
	N	Y	Y	Y	Y	Y
	Eligible Projects:					
	<ul style="list-style-type: none"> Projects must have a minimum of \$20 million in eligible expenditures New construction of public infrastructure including natural infrastructure, and modification and/or reinforcement, rehabilitation and expansion of existing public infrastructure including natural infrastructure Investments to reduce socio-economic, environmental and cultural impacts of natural hazards and extreme weather events when considering current and potential future climate change impacts Project bundling allowed for projects including multiple assets that work in a systematic manner to reduce the risk in the same time period which can demonstrate links to reduced risks from common hazard within program lifetime Projects must be completed by 2027-2028 					
Criteria:						
<ul style="list-style-type: none"> Meet one or more <u>national</u> significance criteria, including reducing impacts on: <ul style="list-style-type: none"> Critical infrastructure and essential services Amount of critical infrastructure at high risk Health and safety of Canadians Significant disruptions in economic activity Costs of recovery and replacement Vulnerable regions Must comply with environmental assessment or federal policy, ensure Aboriginal consultations, and/or modern treaty obligations satisfied Climate lens assessment required – costs of GHG mitigation assessments eligible for reimbursement for approved projects 						
Expenditures:						
<ul style="list-style-type: none"> Eligible expenditures may include design and planning, capital costs, as well as costs related to meeting specific program requirements Land acquisition is eligible only for natural infrastructure and under specified program conditions Minimum total value of \$20 million in eligible expenditures, consistent with program objective to fund large-scale infrastructure projects 						
Canada Infrastructure Bank	Program Restricted to PSAB “Tangible Capital Assets”?	Land Acquisition?	Climate Lens Assessment?	Minimum Project Threshold?	Maximum Federal Contribution?	Bundling/Joint Applications?
	Y	TBD	TBD	TBD	TBD	TBD
	Eligible Projects:					
	<ul style="list-style-type: none"> New or “greenfield” infrastructure, and large, transformative potential projects and investment opportunities that provide greatest economic, social and environmental returns Guided by federal infrastructure policy objectives in Investing in Canada Plan and Pan-Canadian Framework on Clean Growth and Climate Change 					
Criteria:						
<ul style="list-style-type: none"> Revenue-generating infrastructure projects in public interest 						
Expenditures:						
<ul style="list-style-type: none"> Criteria still under development 						

Gas Tax Fund	Program Restricted to PSAB “Tangible Capital Assets”?	Land Acquisition?	Climate Lens Assessment?	Minimum Project Threshold?	Maximum Federal Contribution?	Bundling/Joint Applications?
	Y	Y	N	N/A	N/A	N/A
	Eligible Projects:					
	<ul style="list-style-type: none"> • Acquiring, planning, designing, constructing, or renovating tangible capital asset • Strengthening ability of local governments to improve local and regional planning and asset management 					
Criteria:						
<ul style="list-style-type: none"> • Projects that contribute to cleaner air, cleaner water and reduced greenhouse gas emissions, including: <ul style="list-style-type: none"> ○ Drinking water and wastewater ○ Recreational, cultural and tourism infrastructure ○ Brownfield redevelopment ○ Disaster mitigation ○ Capacity building 						
Expenditures:						
<ul style="list-style-type: none"> • Tangible capital asset constraint • Studies, strategies, or systems related to asset management, including software acquisition and implementation, training directly related to asset management planning, and long-term infrastructure plans 						

Federation of Canadian Municipalities						
Green Municipal Fund <i>Next intake:</i> Year-round for feasibility studies and pilot projects; twice/year for capital projects (March 1 st and August 1 st)	Program Restricted to PSAB “Tangible Capital Assets”? N	Land Acquisition? N	Climate Lens Assessment? N	Minimum Project Threshold? N	Maximum Federal Contribution? Y	Bundling/Joint Applications? N
	Eligible Projects: <ul style="list-style-type: none"> Capital asset projects can include natural asset projects under the stormwater management funding stream. Plans, feasibility studies, pilot projects and capital projects that improve air, water, and soil and reduce greenhouse gas emissions 					
	Criteria: <ul style="list-style-type: none"> Retrofitting, construction, replacement, expansion or purchase and installation of fixed assets or infrastructure that will improve environmental performance in municipal, energy, transportation, waste, or water or some combination of these sectors Stormwater management projects must aim to remove Total Suspended Solids from runoff from site: 80% for municipal projects and 60% for neighbourhood projects involving multiple properties or sites 					
	Expenditures: <ul style="list-style-type: none"> Feasibility Studies: up to 50% eligible costs to maximum \$175K Pilot projects: up to 50% eligible costs to maximum \$350K Capital projects: up to 80% of eligible costs, through mix of low-interest loans to maximum of \$5 Million for most projects and grants for 15% of loan amount (high-ranking projects may be eligible for twice these maximums) 					
Municipalities for Climate Innovation Program – Climate and Asset Management Network	Program Restricted to PSAB “Tangible Capital Assets”? N	Land Acquisition? N	Climate Lens Assessment? N	Minimum Project Threshold? N/A	Maximum Federal Contribution? N/A	Bundling/Joint Applications? N/A
	Eligible Projects: <ul style="list-style-type: none"> Peer-learning opportunities, training and grant funding to help municipalities better integrate climate change and sustainability goals into decision-making about infrastructure assets and services 					
	Criteria: <ul style="list-style-type: none"> Climate lens assessment not required specifically, but entire program climate-focused 					
	Expenditures: <ul style="list-style-type: none"> Will be defined with next intake 					

*Note: A number of other funding programs² have supported natural assets in the past, but they have completed their final intakes and therefore, were not included.

Relevance for Municipal Natural Asset Management

Investing in Canada Infrastructure Program – Green Infrastructure Stream

The Investing in Canada Infrastructure Program (ICIP) is delivered by Infrastructure Canada (INFC) and implemented through INFC's Integrated and Bilateral Agreements with provincial and territorial governments. The Green Infrastructure funding stream has three sub-streams: (i) climate change mitigation; (ii) adaptation, resilience, and disaster mitigation; and, (iii) environmental quality. For the purpose of accessing ICIP funds, INFC now considers natural assets as capital assets under this funding program. While natural assets do not generally qualify directly under the Public Sector Accounting Board's "tangible capital assets" above, INFC is broadening its definition of capital assets to include natural infrastructure. Under the ICIP, natural infrastructure refers to the use of naturally occurring resources (e.g. aquifer, wetland, forest, shoreline etc.) and the engineered use of natural resources (e.g. green roofs, rain gardens, trees), to deliver infrastructure services or to complement grey infrastructure services, or to adapt public infrastructure to the impacts of climate change and climate-related disaster mitigation.³ Further, natural asset projects have the potential to meet more than one of the required Green Infrastructure stream outcomes. This makes the ICIP's Green Infrastructure Stream a strongly viable source of funding for municipal natural asset projects. However, land acquisition is not eligible, meaning that natural assets must already be publicly owned or must be purchased through separate funding.

Examples of relevant funded projects include⁴:

- Reclamation and Naturalization of Existing Urban Watercourses Rehabilitation Plan Preparation – London, Ontario (ON).
- Reduce Lake Erie phosphorus loading rehabilitating 8 wetlands as part of the regional stormwater conveyance and management system – Blandford-Blenheim, Erin, London and Wellesley, ON.
- Climate Change Mitigation Business Plan – Saskatoon, Saskatchewan.

Proposals under this program may require a climate change resilience assessment or a greenhouse gas mitigation assessment, depending on the program sub-stream and/or the project cost.

Disaster Mitigation and Adaptation Fund

INFC is also responsible for the delivery of the Disaster Mitigation and Adaptation Fund (DMAF) program, a national program to support large-scale infrastructure projects, including natural infrastructure projects, to help communities better manage the risks associated with current and future natural hazards. Eligible investments for infrastructure projects under the DMAF explicitly include natural infrastructure. The Fund is designed to support the objectives of the federal government's Pan-Canadian Framework on Clean Growth and Climate Change to build climate resilience through infrastructure and reduce climate-related hazards and disaster risks. The DMAF defines natural infrastructure as referring to the use of naturally occurring resources or the engineered use of natural resources, to provide adaptation or mitigation services to the gradual and/or sudden impacts of climate change or natural hazards.

The DMAF's \$20 million project threshold may present somewhat of a barrier since natural infrastructure projects tend to be low cost in comparison to engineered projects. Nonetheless, the program allows for the bundling of several sub-projects within a single watershed. For example, a potential project could include a number of communities' projects to manage, monitor, restore, and rehabilitate natural assets in a single and/or neighbouring watersheds to reduce flood risk.

Canada Infrastructure Bank

Established as part of the ICIP, the Canada Infrastructure Bank (CIB) is a Crown Corporation that uses federal support to attract private sector and institutional investment for new or "greenfield" infrastructure, and large, transformative infrastructure projects with economic, social and environmental returns. Projects must be revenue-generating and in the public interest. The CIB is still establishing its overall governance and project, as well as specific economic and investment, criteria. With investment criteria still under development, relevant project examples are not yet available.

Similar to the DMAF, it may be challenging for natural asset management projects to meet CIB eligibility requirements based on the eligibility requirements for large, transformative infrastructure projects.

Federal Gas Tax Fund

Delivery of the federal Gas Tax Fund varies by province or territory. In the provinces of British Columbia and Ontario, the agencies are the respective municipal associations (Union of BC Municipalities, and Association of Municipalities of Ontario), whereas elsewhere the funding is delivered directly to the provincial or territorial governments. The Fund is limited to tangible capital assets. The list of eligible funding categories does not explicitly state natural assets, but there are a number of Eligible Project Categories under which purchased natural assets could fit.

In order to qualify, municipalities may need to explicitly identify the ecosystem services provided by the natural asset. For example, a municipality could seek funding for a wetland under the category of disaster mitigation if flood-water storage is identified as a service. Or, a forest could be categorized under culture, tourism, or recreational infrastructure if the asset's recreational services are highlighted.

Green Municipal Fund

The Federation of Canadian Municipalities (FCM) has administered the Green Municipal Fund (GMF) for close to 20 years. In particular, the GMF's stormwater management funding stream could fund natural asset projects. Previously funded projects provide a strong indication of the variety of natural asset management projects that can access funding through the GMF. For example, the GMF has funded projects that restore and rehabilitate wetlands and forests, watershed management planning, erosion control projects, and urban natural asset planning. Examples of such projects include:

- Flood Erosion Control Project on Stoney Creek Mountain - Hamilton, ON.⁵
- Action Plan for All Lakes in the Town of Sainte-Anne-des-Lacs, Quebec (QC).⁶
- Burdenet Creek Erosion Control Optimisation Study – Markham, ON.⁷
- Natural Environment Protection and Development Plan for the City of St. Agathe-des-Montes, QC.⁸

Municipalities for Climate Innovation Program – Climate and Asset Management Network

FCM also administers the Municipalities for Climate Innovation (MCIP) program, including the Climate and Asset Management Network stream which will open for applications again in 2019. Natural assets clearly fall within the MCIP's scope. Under the now-closed Climate Adaptation Partner Grants, the MCIP funded the Municipal Natural Assets Initiative's second cohort of pilot projects,⁹ focussed on assessing and comparing the costs of natural assets and gray infrastructure to manage risks from climate impacts.

The MCIP focuses on building the capacity of municipalities including local elected officials and municipal staff, to better understand the risks and opportunities, plan, and take action on climate change. It is unique in its focus on integrating climate change considerations and asset management.

Like under the GMF, previously funded projects provide a strong indication of the variety of natural asset management projects that can access funding through the MCIP. For example, the program has funded climate change planning and asset management planning. Such funded projects include:¹⁰

- Reducing climate risk through asset management and peer learning – City of Selkirk, Manitoba
- Improving regional climate resilience through vulnerability analysis and planning – Fraser Basin Council, British Columbia

Looking Forward

INFC's broadening definitions of natural assets as capital assets points to high potential for municipal natural asset management projects to be eligible for ICIP's Green Infrastructure Stream funding. FCM's GMF and MCIP funding provide strong opportunities for municipal natural asset management projects. Whereas, the INFC's DMAF and the CIB funding requires large-scale projects that may be challenging for small-scale natural asset projects. A manager seeking funding will need to consider each program's parameters for eligible projects, eligible expenditures, minimum eligible cost thresholds, and the ability to bundle projects or applications. Other factors to take into account include whether the funds are being delivered directly to municipalities or through provinces and territories, and what level of matching funds are required and available. For a more complete overview of eligibility requirements and required outcomes, please refer to the full report on the MNAI website (www.mnai.ca).

Endnotes

1. For example, the National Disaster Mitigation Program, the Clean Water and Wastewater Fund and New Building Canada Fund's Small Communities Fund.
2. Personal communication. Lucy Rodina, Sectoral Policy, Infrastructure Canada. March 13, 2019.
3. <https://www.infrastructure.gc.ca/gmap-gcarte/index-eng.html>.
4. For more details, see: <http://www.fcm.ca/home/programs/green-municipal-fund/funded-initiatives.htm?lang=en&project=448fcf2f-c363-e511-acf3-005056bc2614&srch=forest>.
5. See <http://www.fcm.ca/home/programs/green-municipal-fund/funded-initiatives.htm?lang=en&project=d20a159a-cd45-e111-968a-005056bc2614&srch=forest>.
6. See <http://www.fcm.ca/home/programs/green-municipal-fund/funded-initiatives.htm?lang=en&project=4d1d49ca-cd45-e111-968a-005056bc2614&srch=waterway>.
7. See <http://www.fcm.ca/home/programs/green-municipal-fund/funded-initiatives.htm?lang=en&project=229ad687-cd45-e111-968a-005056bc2614&srch=forest>.
8. <https://data.fcm.ca/home/programs/green-municipal-fund/funded-initiatives.htm>
9. 9. MNAI. 2018. And then there were 11. <https://mnai.ca/and-then-there-were-11/>
10. 10. FCM, 2018. Year 2 Annual Progress Report: Municipalities for Climate Innovation Program <https://fcm.ca/sites/default/files/documents/resources/report/annual-progress-report-yr2-mcip.pdf>



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