Municipal Natural Assets Initiative (MNAI):

Watershed-level project in Ontario's Greenbelt

("MNAI in Ontario's Greenbelt Project")

Call for Expressions of Interest

Date issued: January 24 2019

Expression of Interest period will close as soon as suitable candidates found

1. Purpose

This document is to solicit an expression of interest from up to 7 smaller/rural local governments[1] to host a single Municipal Natural Assets Initiative (MNAI) project located in a watershed area within or originating within Ontario's Greenbelt.

2. Project objective and components

The objective of the *MNAI in Ontario's Greenbelt Project* is to help participating local governments identify, prioritise, value and manage key natural assets.   This will result in the natural assets providing core services such as storm water management in a cost-effective and reliable manner for the long-term, which can in turn: save money relative to engineered alternatives; reduce risk and potential liability, and result in sustainable service delivery to the community. To achieve this, participating local governments will, together with MNAI:

- Identify: (a) natural assets of interest (e.g. wetlands, forested areas); (b) the ecosystem functions of the identified asset(s) (e.g. a wetland or forested areas may store water) and (c) the municipal services derived from the ecosystem function (e.g. a wetland's water storage function may reduce local or downstream flooding, or have potential to do so);
- Determine different scenarios to model – for example, finding out what will happen to natural asset in climate change scenarios, with land use intensification, or development;

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[1] E.g. villages, towns, areas with lower population density and/or long-distance to area with higher population density.

- Determine beneficiaries of the services provided by the natural asset;
- Determine the economic value of the municipal functions provided by the natural asset; specifically, what it would cost the local government to provide the same service by an engineered means; and,
- Develop costed operations and maintenance plan and other measures to manage the identified natural asset effectively.

The participating local governments will have differing individual contexts but will be working collaboratively together within the framework of a single project.

3. What does MNAI provide to participating local governments?

MNAI supports *MNAI in Ontario's Greenbelt Project* local government participants by providing:

a) Project scoping support to ensure a common understanding amongst the local governments of the initiative and its objectives;
b) Municipal natural asset management guidance package developed by MNAI, and which draws on material from the Federation of Canadian Municipalities, the Canadian Network of Asset Managers Asset Management BC and others;
c) Detailed templates for each of the 3 phases of the asset management cycle (assess, plan, implement – see Figure 1);
d) A research paper on infrastructure/natural asset funding programs, and plain-language summaries of four other research papers already prepared for MNAI; and,
e) Three in-depth, on-site workshops, one for each asset management cycle phase, as follows:

- *Workshop 1*: introduce the asset management framework, ecosystem services and municipal natural asset management; describe how to conduct a natural asset inventory; and determine the condition and beneficiaries of natural assets as well as associated risks;

- *Workshop 2*: provide guidance on how to estimate the value of the services provided by identified natural assets, including introducing methodologies and data requirements;

- *Workshop 3*: provide guidance on: the development of operations and maintenance plans; the development of financial plans to maintain and replace the asset; and other strategies (e.g. Development Cost Charge Bylaws and Subdivision Bylaws; and private land issues) that may be considered to advance

the better management, rehabilitation and restoration of identified natural assets;

f) "Help desk" technical support to participating municipalities over 12 months at approximately 35 hours per month across the participating municipalities. This typically involves: support for scoping data needs; support in finding data sources to enable modelling; trouble-shooting; training on modelling (e.g. EPA SWMM model); support for developing an Operations and Maintenance plan (or equivalent where private land is involved);

g) Support to identify the natural assets of highest priority;

h) Economic analysis to determine the value of the natural assets' services in a single watershed;

i) Modelling for prioritised natural assets in the watershed (approximately 425 hours of modelling time will be provided assuming 7 participants);

j) Project evaluation at the end of the pilot (monitoring will be conducted throughout); and,

k) A final 15-20-page public report that summarizes the project and its findings.

4. What do the participating local governments provide as part of the project?

Participating local governments are expected to:

a) Demonstrate explicit written support (letter or resolution) from participating Council and/or the Chief Administrative Officer for the project, including for allocating additional staff capacity;

b) Demonstrate clear commitment to a structured asset management approach across the organization;

c) Commit to supporting the identification of data sources, providing data, and working individually and to do the work required to fill in the templates;

d) Commit to exploring changes to decision-making as a result of the project, including, for example, costed Operations and Maintenance Plans;

e) Commit the engagement of a multi-disciplinary staff team representing relevant departments such as Finance, Public Works, Planning, Engineering, and Parks. If the community already has an asset management committee then the involvement of someone from this group is needed;

f) Designate a project lead that will also be the primary focal point for MNAI;

g) Commit a total of $105,000 (so if there are 7 participants this could be allocated at $15,000/local government).

h) Participate in project evaluation interviews at the close of the project; and,

i) Commit to follow up exercises at 1, 2, and 3 years after the close of the project

so that MNAI can assess and communicate long-term impacts.

5. Additional considerations for applicants

- Local governments may wish to partner with Conservation Authorities for some aspects of their proposal;
- MNAI projects require incremental staff resources and thus needs to be built into workplanning;
- MNAI initiatives are most successful when they link to core municipal priorities such as storm water management planning;
- Participating local governments contribute a fraction of overall project costs; MNAI also receives funding for *MNAI in Ontario's Greenbelt Project* from the Friends of the Greenbelt Foundation. This means that local government contributions are highly leveraged;
- In addition to the financial contribution noted in 4(g), municipalities should be able to provide a suitable room(s) for each launch workshop. Suitable workshop locations will be determined with participants;
- Local governments are expected to share publicly their experiences with MNAI. Communication regarding project activities will be undertaken according to a communications protocol developed by MNAI; and,
- The primary natural asset services considered in this project relate to stormwater management.

6. Applying

What should go in my expression of interest?

Up to 7 local governments in a single watershed (or ecologically similar region) should develop a single letter, signed by each participants CAO or equivalent, that outlines:

    a)   The rationale for hosting an MNAI watershed project;

    b)   The watershed, specific natural assets, services and scenarios that are of greatest interest;

    c)   The ability to contribute sufficient capacity to the project, as outlined in Section 7;

    d)   A willingness and ability to contribute g. for a total of $105,000, spread across the participating local governments if selected as an MNAI project.

How are applications evaluated?

Applications will be evaluated on:

- A commitment to asset management;
- A clear initial understanding of priority natural assets and project objective;
- Capacity commitment sufficient to successfully manage the project; and,
- A commitment to implementing / acting on the results of the project.

What happens after we apply?

Local government applicants will be contacted as soon as decisions are made. A memorandum of understanding will be signed with successful applicants.

The first of three workshops will occur as soon as practically possibly following the signing of a memorandum of understanding. The project will run until Summer 2020.

Where can I get additional information?

The MNAI website is: MNAI.ca. The MNAI Facebook page is: https://www.facebook.com/municipalnaturalassets/
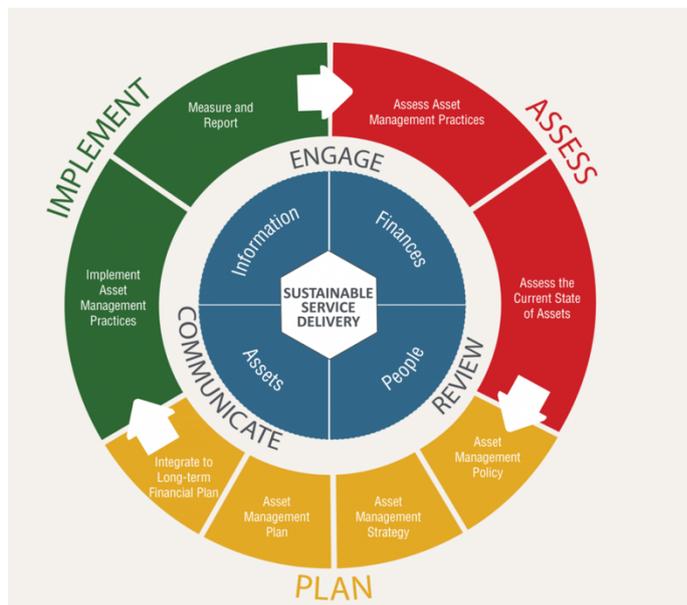
Please submit expressions of interest to: info.mnai@gmail.com

7. Background

About MNAI

MNAI offers a methodology and support for local governments to integrate natural assets into core asset management and financial processes using the same systems as for engineered assets. The methodology and support on based on traditional asset management systems (see Figure 1 below). The result is that natural assets are understood, managed and valued by local government in terms of the services that they provide (e.g. localized or downstream flood management). This, in turn, helps local governments manage risk by better understanding and accounting for services from natural assets and deliver services reliably and cost-effectively.

Figure 1. Municipal natural asset management is based on standard asset processes with which Canadian local governments are increasingly familiar and required to adopt.

Source: Asset Management BC

To date, MNAI has completed one national cohort to enable local governments to undertake municipal natural asset management; launched a second national cohort that will be complete by the end of 2019l; launched watershed projects in Ontario and BC; and undertaken a range of research projects. Full details are at MNAI.ca.

MNAI is a not-for-profit entity incorporated under the *BC Societies Act*. It was originally convened by: The Town of Gibsons, Smart Prosperity Institute, The David Suzuki Foundation, and Brooke and Associates.

Participating local governments will interact primarily with the Director of MNAI, the Technical Director, and Technical Team. The technical team comprises a hydrologist, GIS

specialist, modeler, water resources engineer, and economist.

Table 1 describes main differences between MNAI's national cohort initiatives, and watershed-level approaches.

Friends of the Greenbelt Foundation
The Greenbelt permanently protects over 2 million acres of agriculture and environmentally-sensitive lands, clean and abundant fresh water supplies and a vibrant rural economy. The Greenbelt also extends into the region's major city centres through 21 urban river valleys.

Through research, grants and communication activities, the Friends of the Greenbelt Foundation invests in climate resilient communities and working, rural landscapes, contributing to a high quality of life and prosperity in the region. In particular, the Foundation invests in the Greenbelt's already available natural solutions that provide over $3.2B annually in public benefits such as flood protection, recreation, fresh water and local food. As the population and urbanization of the region expands, the Greenbelt will only become more important. Through a climate mitigation and adaptation lens, the health of the Greenbelt and its river valleys is essentially to improving resilience in the region.

The MNAI program, and municipal natural asset management in general, offers tremendous advantages to local municipalities in reducing infrastructure costs and vulnerabilities and protecting and improving the Greenbelt's natural systems.

Why does municipal natural asset management matter?
In municipalities across Canada, infrastructure is aging, capital and operating costs are rising, and service delivery is strained by growing populations and shifting conditions. Ecosystems are in decline in many communities. Climate change will exacerbate these challenges.

To provide community services in a cost effective and sustainable manner now and in the future, local governments are looking for ways to improve management of the critical assets that supply these services.

Asset management -- the process of inventorying a community's existing assets, determining the current state of those assets, and preparing and implementing plans to maintain or replace assets--allows municipalities to make informed decisions regarding a community's assets and finances. Within this context, there is growing evidence that natural assets provide, or could be restored to provide, services just like engineered assets,

and often at lower costs[2].

However, most local governments lack policies and methods to measure the services provided by natural assets or the risks to services if the natural assets become degraded. In most communities, natural assets have not been considered on equal footing with engineered assets or included in asset management plans, limiting the possibility that their maintenance and rehabilitation is accounted for in municipal operating budgets and long-term financial plans.

Table 1: National Cohort Approach versus Watershed Approach	
National cohort approach	**Watershed approach (this project)**
Participants located across country	Participants located in close proximity, in a single watershed (or connected/neighboring sub-watersheds)
Participants of all sizes	Participants are primarily smaller/rural local governments
One or more natural assets per community in each of 5 communities across Canada	Prioritised natural assets within single watershed
Participants collaborate mainly via webinar to share lessons	Collaboration in context of a single watershed is inherent part of project and is facilitated through 3 on-site workshops
Single launch workshop followed by extensive help desk support & webinars	Three on-site workshops with less help desk support and greater use of self-study with MNAI-developed templates
Participants expected to have made substantial progress in asset management.	Basic asset management is integrated as part of the curriculum, using as a foundation Asset Management BC and FCM approaches.
Local government participants do own modelling / scenario development with support from MNAI	MNAI does all modelling for prioritised natural assets in the watershed. These activities are additional to the project supported by NRCAN and Province of BC.

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[2] Definitions related to municipal natural asset management can be found here: http://mnai.ca/media/2018/02/finaldesignedsept18mnai.pdf