



Municipal Natural Assets Initiative (MNAI):

Watershed-level pilot implementation in British Columbia

Call for Expressions of Interest

Extension: Until suitable candidate found

Extension date: 20 September 2018

1. Purpose

This document is to solicit non-binding expressions of interest from approximately 7 smaller/rural local governments¹ to host a single Municipal Natural Assets Initiative (MNAI) project located in a single watershed area.

2. Background

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 costs².

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

² Definitions related to municipal natural asset management can be found here:



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.

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 is based on traditional asset management systems (see Figure 1). 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

The Town of Gibsons, B.C. was the pioneer of municipal natural asset management. Since 2016, MNAI has:

<http://mnai.ca/media/2018/02/finaldesignedsept18mnai.pdf>



- Completed a first national cohort of projects in the City of Nanaimo, City of Grand Forks, District of West Vancouver, Region of Peel and Town of Oakville to refine, replicate and scale-up the original Gibsons’ approach.
- Initiated a second national cohort in the City of Courtenay, BC; City of Oshawa, ON; District of Sparwood, BC; Southeast Regional Service Commission, NB; and, Western Valley Regional Service Commission, NB.
- Secured funding to expand the methodology beyond stormwater management to coast zone issues.
- Secured funding to enable watershed-level implementation in BC and in Ontario’s Greenbelt.

3. Context for watershed scale implementation of project

MNAI is now offering a watershed-level program focussed on the needs and capacities of smaller / rural local governments, in a single geographic region. This will be delivered first in BC with funding from Natural Resources Canada and the Province of British Columbia. MNAI is now requesting expressions of interest in this regard.

Table 1 describes main differences between the national cohort and watershed-level approaches.

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 subwatersheds)
Participants of all sizes	Participants are 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 paid \$30,000 for municipalities of less than 50,000 people; \$35,000 for	Training workshops and help desk support entirely funded by NRCan and Province of



municipalities of between 50,000-100,000 people and \$40,000 for municipalities over 100,000 people.	BC (additional fee information below)
Participants are expected to have already 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 all their own modelling / scenario development with support from MNAI	MNAI does all the modelling for prioritised natural assets in the watershed. These activities are additional to the project supported by NRCAN and Province of BC.

4. Project objective and components

The project objective is to ensure that, at the end of the project period, participating local governments have started to change decision-making so that natural assets are properly accounted for and managed.

With the help of MNAI, participants will:

- Identify: (a) the natural assets of interest (e.g. a wetland); (b) the ecosystem functions of the identified asset(s) (e.g. a wetland 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 different environmental management practices;
- 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 a costed operations and maintenance plan to maintain the identified natural asset(s).

The focus of this project is on stormwater management related services; this will expand for future project rounds.

To achieve this efficiently at a watershed scale with smaller/rural local governments the



project will:

- Emphasize self-guided work through the use of templates that MNAI will develop for local governments over the course of project;
- Ensure that MNAI itself conducts the modelling and scenario development for participants.

The project will be delivered within a standard asset management framework (see Figure 1).

5. What does MNAI provide to the local government?

MNAI will support 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 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)³;
- 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.

6. What does the local government provide as part of the project?

The project is co-developed with extensive, ongoing support from MNAI throughout. It is not, however, a consulting arrangement in which the local government hands responsibility to the MNAI team to conduct all of the work. Municipalities 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 it would be important to ensure the involvement of someone from this group;

³ This work is additional but complementary to the activities funded by NRCAN/Province of BC



- f) Designate a project lead that will also be the primary focal point for MNAI;
- g) Commit \$15,000 per participating local government (for a total of \$105,000 if there are 7 participating local governments). This will cover modelling and other expenses additional to the activities covered by the proposal to NRCAN and Province of BC;
- 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 the long-term impacts.

7. Additional considerations

- MNAI projects require incremental staff resources and thus needs to be built into workplanning; the project cannot be effectively managed “from the corner of a desk”;
- Although it is not imperative, MNAI pilots are most successful when they link to other municipal priorities such as storm water management planning;
- Local governments contribute a fraction of project costs; MNAI also receives funding from a variety of sources, in particular NRCAN and the Province of BC. This means the municipal contributions are extensively leveraged;
- In addition to the financial contribution noted in 6(g), municipalities should be able to provide a suitable room(s) for each launch workshop. Suitable workshop locations will be determined with participants. MNAI can contribute \$250.00 / workshop to cover refreshments.
- Local governments are expected to share publicly their experiences with MNAI. It is also recognized that local governments want a ‘no surprises’ approach to communications. Communication regarding project activities will be undertaken according to a communications protocol developed by MNAI.

8. Who is involved in the Municipal Natural Assets Initiative?

MNAI is a not-for-profit entity incorporated under the *BC Societies Act*. It was originally convened by:

- **The Town of Gibsons**, which is a leader in the integration of natural assets into asset management strategies. It brings extensive applied experience to the project that can be shared with other municipalities;
- **Smart Prosperity Institute**, a national research network and policy think tank based at the University of Ottawa, advancing practical policies and market solutions for a stronger, cleaner economy. SP brings to the project individuals with extensive research



and applied experience in municipal policies and expertise in environmental pricing options at the municipal level;

- **The David Suzuki Foundation**, which works to conserve the environment and find solutions that create a sustainable Canada through science-based research, education and policy work. DSF brings to the project specific experience with the tools and methods required to measure natural assets and integrate the data into asset management strategies; and,
- **Brooke and Associates**, a BCorp-certified consulting practice that works with domestic and international clients with a focus on organizational and community sustainability and resilience.

Since inception, MNAI had received funding from:

- The Real Estate Foundation of BC
- Federation of Canadian Municipalities
- Friends of the Greenbelt Foundation (Ontario)
- The Salamander Foundation
- The Province of British Columbia Ministry of Municipalities and Housing
- Vancity Credit Union
- Tides Foundation
- The Sitka Foundation
- The Bullitt Foundation
- Natural Resources Canada

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.

Asset Management BC will be a technical partner during this project. Simon Fraser University's Adaptation to Climate Change Team (ACT) will also provide advisory support.

9. 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 \$15,000 / community (e.g. for a total of \$105,000 if there are 7 local governments), if selected as an MNAI project.

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

Project scoping with participants will occur during this time.

The first of three workshops will occur in the first quarter of 2019. The project will run until Spring 2020.

10. Application evaluation criteria

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.

11. Additional information

The MNAI website is: MNAI.ca. The MNAI Facebook page is here: <https://www.facebook.com/municipalnaturalassets/>

Please submit expressions of interest to: info.mnai@gmail.com