September 28th, 2020

The Honourable Catherine McKenna
Minister of Infrastructure and Communities
180 Kent Street, Suite 1100
Ottawa, Ontario K1P 0B6
Via Email: infc.minister-ministre.infc@canada.ca

cc The Honorable Jonathan Wilkinson, Minister of Environment and Climate Change
cc The Honorable Chrystia Freeland, Deputy Prime Minister and Minister of Finance

RE: Recommendations and Support for Natural Infrastructure Investment

We are writing to support direct federal investment in natural infrastructure (NI) programs in the 2021 Federal Budget. Our recommendations, to Infrastructure Canada, are:

1) To renew and reinvest in the Disaster Mitigation and Adaptation Fund (DMAF) program; and
2) To establish a dedicated Natural Infrastructure Program.

These recommendations build on a growing body of evidence that demonstrates the value of natural infrastructure in providing climate resilience, improved water management, biodiversity, jobs and improved opportunities for Canadians. Furthermore, the following recommendations offer important insights into how to operationalize commitments in the throne speech. Specifically, commitments around access to nature, support for municipalities and infrastructure jobs.

We represent a group of NGOs working with municipalities, Indigenous peoples and local groups on advancing natural infrastructure projects across Canada with a focus on their water, biodiversity and climate change benefits. Our organizations represent hundreds of thousands of Canadians who are speaking out for a green recovery and the importance of addressing biodiversity loss and climate change through recovery actions. This spring we organized a letter with signatures from 48 NGOs, municipalities and others calling on the federal government to invest in natural infrastructure projects in their COVID-19 recovery efforts.

Our two recommendations, if implemented, will enable greater and more specific investment in NI projects.

Recommendation 1: Full renewal of the Disaster Mitigation and Adaptation Fund (DMAF), $2 billion over 10 years, is necessary to continue to support Canadian communities to prepare for the impacts of climate change. We further recommend that at least 25% of this investment be specifically designated for natural infrastructure projects.

To ensure natural infrastructure projects are well represented in supported initiatives, we further recommend that Infrastructure Canada:

1) Enable strategies for getting smaller, more numerous, funding dockets out the door (for example: lowering funding thresholds, simplifying/streamlining the application process, and using intermediaries). This will support NI projects that are smaller in scale and budget than traditional infrastructure projects, and which can break ground more quickly.
2) Include project criteria that would allow natural infrastructure projects to stand out compared to other project types (for example, the ability to select more than one service that a project will provide in

addition to disaster mitigation). This change would recognize the numerous co-benefits associated with NI in addition to disaster mitigation, such as clean water, carbon sequestration, biodiversity and improved access to natural areas.

3) Recognizing that natural assets are not recognized as "tangible and fixed capital assets" by the Public Sector Accounting Board, we recommend clarifying the language related to "Eligible Expenditures and Investments" to make it clear that natural infrastructure projects are not subject to this requirement.

Recommendation 2: Establish a dedicated Natural Infrastructure Funding Program, with $500 million investment over 5-years.

The fund should include money for the full spectrum of development, implementation, and evaluation of natural infrastructure projects, including:

- Pre-development and readiness projects;
- Execution of projects that do not fit directly within the DMAF, for example, projects demonstrating infrastructure benefits beyond disaster mitigation;
- Training and capacity building (for municipal staff and other key stakeholders);
- Development of tools and frameworks that support increased natural infrastructure implementation;
- Partnership development; and
- Development and implementation of monitoring and evaluation programs.

A natural infrastructure fund should also enable more flexible cost-sharing mechanisms, including beneficiary payments and/or offsets from development and private sector investments. Such a fund would help overcome known barriers in accessing existing funding, and in the implementation of natural infrastructure projects more broadly.

To fully benefit from natural infrastructure projects across Canada, it will take a coordinated and concerted effort from various ministries and across multiple jurisdictions. There is an opportunity to enable necessary coordination between government departments in relation to natural infrastructure projects by incorporating an interdepartmental program committee. This committee could leverage, for example:

- ECCC's knowledge and expertise on GHG protocols;
- NRCan's mandate on adaptation;
- Agriculture Canada's expertise in delivering impactful management practices on agricultural lands.

To develop a robust natural infrastructure funding program, we recommend that you build on the above recommendation by conducting additional consultations with a broad range of stakeholders and Indigenous Nations.

Why Natural Infrastructure?

In the context of nature-based climate solutions, the terms "natural infrastructure" and "green infrastructure" are often used interchangeably, despite the subtle differences in scope (see detailed definitions in the attached Appendix). Specific projects that fall within these definitions include green stormwater management (e.g. permeable pavement, bioswales, rain gardens, etc), urban forestry (including street trees and private trees), green roofs, creating or maintaining greenspace and natural heritage systems, among others. However, within the existing Infrastructure Canada funding programs, "green infrastructure" includes

built infrastructure projects such as renewable energy solutions and traditional wastewater management infrastructure. As the definition informs the current funding prioritization, future programs should acknowledge this difference and recognize the unique needs of natural infrastructure projects. There is currently a need for funding that specifically supports living, natural infrastructure projects.

Never before have the benefits of nature been more important to our communities. The past seven months have highlighted the extreme value of (and demand for) natural areas to governments and families across Canada. These spaces have been, and continue to be, crucial to supporting the mental and physical health of our populations during COVID-19 times. Those with access to green areas and open space have fared better than those without during this unprecedented time.[i] Simply put, we have insufficient natural spaces to support access for all Canadians. Furthermore, natural infrastructure jobs are local jobs that support a diversity of sectors; and come with a range of climate, water and biodiversity benefits. To better support our communities, the natural infrastructure sector needs a reliable source of long-term funding to be able to plan and execute projects.

Signed,

Jennifer Court
Executive Director
Green Infrastructure Ontario

Dimple Roy
Director Water Management
International Institute for Sustainable Development

Florence Daviet,
National Forests Program Director
Canadian Parks and Wilderness Society

Christine Mettler
Co-Director (interim)
Canadian Freshwater Alliance

Jay Ritchlin
Director General – Western Canada
David Suzuki Foundation

APPENDIX: BACKGROUND INFORMATION

What is Natural Infrastructure?

Natural Infrastructure solutions use "preserved, restored or enhanced ecosystem features and materials (e.g., water, native species of vegetation, sand and stone, etc.) to meet targeted infrastructure outcomes, while providing a range of ancillary benefits to the environment, the economy, community health and well-being."[ii]

Central to natural infrastructure solutions is the **role of protecting, maintaining and restoring ecosystems**—forests, grasslands, wetlands, etc.—and the related ecosystem services that they then provide to communities. How those projects are undertaken and who has access to the benefits provided are important factors in determining whether the projects will have a positive social impact and increase vulnerable populations' access to natural spaces.

Why Invest in Natural Infrastructure?

Investing in natural infrastructure provides a broad range of benefits, including:

Sustainable Growth and Jobs. In the past few months, it has become even more apparent how important high-quality jobs are to the functioning of Canada's economy. Each dollar invested in natural infrastructure yields $3 to $15 of environmental, social and health benefits. Critically, a recent study estimated that natural infrastructure solutions in Ontario contributed $8.33 billion in GDP and created 122,000 jobs in 2018 alone.[iii] It also found that if 15% of Ontario's annual infrastructure spending was dedicated to natural infrastructure projects, this sector would create an additional 43,200 diverse jobs, generate $5.4 billion in additional gross output (revenues), contribute an additional $3 billion to provincial GDP in 2030 and represent in some cases, hundreds of thousands of dollars in savings for municipalities, insurance companies, and homeowners.[iv,v]

Mental Health and Well Being. Recent studies have shown the benefit of nature to human mental health and well-being[vi,vii] and the high cost—1 trillion USD each year[viii]—of not treating depression and anxiety. In the same way that COVID-19 will likely continue to engender mental health implications[ix], it has also laid bare just how essential natural spaces are for people's well-being and the need for more natural spaces to reduce inequity in communities across the country.[x] In many parts of Canada, local watershed conservation areas, parks and natural areas are being visited more than ever before.[xi] In addition to sustaining vital

ecosystem services, these areas have been instrumental in supporting the mental health and well-being of millions of Canadians in the past seven months and for years prior to the COVID-19 crisis.

Resilience to Climate Change Impacts. The costs of protecting Canadians from the impacts of climate change are increasing, with estimates for the cost of climate adaptation at the municipal level alone to be $5.3 billion annually.[xii,xiii] At the same time, municipalities will incur between $10 and $15 billion in near-term, non-recoverable losses due to COVID-19, and many are on the brink of a financial crisis.[xiv] By embracing and implementing natural infrastructure solutions, municipalities can build back better to reduce climate-related risks[xv,xvi] , increase their resilience to climate change and provide critical access to green space. A recent study reviewing the effectiveness of nature-based interventions on climate impacts found that in more than 66% of studies, interventions focused on natural or semi-natural ecosystem strategies were positive.[xvii]

Reducing GHG Emissions and Increasing Carbon Sequestration. There is a need to specifically harness the power of nature to meet our 2030 Paris Agreement mitigation targets in a cost-effective manner. Our ecosystems are projected to sequester less carbon in 2030 than ever before.[xviii] Natural infrastructure projects focused on changing the rate of ecosystem degradation and loss in forests, native grasslands and wetlands; as well as some actions to restore ecosystems (e.g. grasslands) will rapidly improve Canada's mitigation performance and enable ecosystems to sequester more carbon in the future.

Protecting Biodiversity. A recent report highlights the unprecedented rate of current global biodiversity loss, highlighting that "making space for nature within built landscapes to improve the health and quality of life for citizens and to reduce the environmental footprint of cities and infrastructure"[xix] is one of the main pathways for reducing this decline. Natural infrastructure through the protection and maintenance of existing ecosystems and restoring ecosystems are critical to stopping this decline.[xx]

Improved Water Health. Studies have long documented the value that natural landscapes can have in filtering pollutants from entering our waterways. A new report from Ducks Unlimited shows promising results in how wetlands can filter nutrient pollution from nearby waterways, decreasing contributions to harmful algae problems.[xxi] An Insurance Bureau of Canada report further identifies that investing in natural infrastructure may offer cost benefits over that of hard infrastructure for controlling floods and reducing run-off pollution.[xxii]

Other Benefits. Food security, livelihood diversification, agricultural productivity, an increase in non-timber forest products, recreational opportunities, social cohesion and addressing issues of equity in the community have all been raised as benefits of natural infrastructure projects in the literature, though as always how projects were undertaken was vital in determining how these benefits played out.[xxiii]

What are the opportunities in Canada for Natural Infrastructure?

There are thousands of natural infrastructure projects ready for implementation across the country, and many more potential projects that could be realized with readiness and pre-development support. Several organizations working with municipalities, Indigenous people and communities have submitted lists of potential projects in various stages of readiness to the government. Other organizations, like the Municipal Natural Assets Initiative, have reported that there is significant demand for work to assess potential new

natural infrastructure projects. The natural infrastructure sector needs a reliable source of long-term funding to be able to plan and execute projects.

What Changes Are Needed in the DMAF to Support Natural Infrastructure?

The DMAF has proven itself an important and successful program to equip municipalities with resources in support of capital-intensive projects to reduce risks and adapt to a changing climate. It is directly accessible by municipalities, without having to compete alongside provincial priorities. Its outcome-based approach makes for an effective program that attracts high-quality projects. As an already-underway program, it could, with some revisions, be an important vehicle for advancing natural infrastructure projects in the near-term.

However, there are some challenges in accessing the DMAF funding for natural infrastructure projects and, as a result, very few NI project applicants have successfully accessed DMAF funds. The key challenges below highlight that natural infrastructure projects:

a. Are still relatively unknown to many municipal planners and decision-makers, against other municipal projects where the solutions are better understood and require less predevelopment and coordination;
b. Are often much less expensive and need smaller budgets than built infrastructure projects and therefore cannot meet the prescribed minimum thresholds;
c. Often require building consensus, coordination and implementation across a watershed or coastal region (as opposed to a large project with one lead). This difference means that NI projects require resources for predevelopment, design and coordination across proponents. As well, resources may be needed to develop and implement a local ecosystem services-based incentive program or buying/procuring lands for NI projects;
d. Compare even more favourably to built infrastructure projects when the values of multiple benefits of the project are assessed.

Our recommendations, above, try specifically to address these challenges within the DMAF.

Why do we need a focused Natural Infrastructure Fund and Program?

Even if the DMAF were adjusted to better allow natural infrastructure projects, a new fund is needed to advance natural infrastructure solutions across the country.

1. **Moving beyond a disaster mitigation focus**. The DMAF prioritizes reducing risks associated with natural hazards. This priority area restricts access to projects focused on other benefits such as the long-term climate resilience of communities, wetland/grassland restoration for improved water management, or simply improving access to green space for residents.
2. **The need to engage many different actors**. Another reason is that to fully benefit from NI projects across Canada it will take a coordinated and concerted effort from various ministries and across multiple jurisdictions. Having one central program within the federal government with input from INFC, ECCC, Agriculture Canada, NRCAN, etc. would be a starting point for such coordination. Further, support for the development of assessment and evaluation tools could be designed across departments to support a breadth of natural infrastructure projects. For example:

- NRCAN could develop an easy GHG forest quantification tool;
- ECCC could help develop GHG offset protocols that support actors developing NI projects;
- AG Canada could create assessments for farmers to evaluate the best natural infrastructure solutions for their lands.

3. **The need for funding for different parts of the natural infrastructure project life cycles**. There are various elements of a highly functional NI program that would need to be addressed, from upfront or readiness work on natural asset assessments to the development and use of monitoring tools meant to continuously improve our understanding of NI projects.

Endnotes:

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