



20 May 2020

The Right Honourable Justin Trudeau, P.C., M.P.  
Prime Minister of Canada  
Office of the Prime Minister  
80 Wellington Street  
Ottawa, Ontario K1A 0A2

Subject: Natural Infrastructure is an Integral Part of Green Recovery

Dear Prime Minister:

Natural infrastructure<sup>1</sup> projects create good jobs, support local supply chains, and provide a variety of environmental, social, and health benefits. Natural infrastructure can also reduce capital and operating costs for municipalities and Indigenous communities to provide essential services. Support for natural infrastructure solutions as part of a post-COVID green recovery stimulus would help to realize all of these benefits, as well as meeting specific mandates across several federal departments, including Infrastructure, Environment and Climate Change, Natural Resources, Agriculture and Agri-Food, and Public Safety.<sup>2</sup> The case is strong for the value these solutions hold both in advancing climate resilience, disaster risk reduction, enhanced biodiversity and supporting economic recovery.

This letter provides detailed recommendations for short- and medium-term investment in natural infrastructure as an integral part of Canada's economic recovery from the COVID crisis and its long-term resilience to climate change. Financial support for smaller, job-rich natural infrastructure projects across the country will create benefits that go beyond any one project. In addition to their positive economic impact, natural infrastructure projects can be implemented much more quickly than large-scale grey infrastructure projects to provide climate resilience (e.g., inland flood protection, coastal protection, and mitigation of urban heat island effects) while offering additional benefits (as compared to their grey alternatives), such as improved water quality, supporting biodiversity, and (perhaps most importantly in these challenging times) offering mental health benefits. In short, investment in natural infrastructure will allow us to build back better. In order to realize all of these benefits, our specific recommendations<sup>3</sup> are:

1. **Get money moving:** Expedite funding to: 1) projects that are "shovel-ready" and "shovel-worthy"; and 2) to readiness-assessments and other early stage support to create an ongoing pipeline of fundable projects. Benefits include immediate jobs and support for local supply chains. Indigenous peoples must be engaged in all projects impacting their traditional territories, consistent with the principles of free, prior and informed consent as set out in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).
2. **Keep money moving:** Modify existing programs, such as the Disaster Mitigation and Adaptation Fund (DMAF) and the Investing in Canada Infrastructure Program (ICIP) to address current barriers for natural infrastructure projects. Concurrently, continue to fund ongoing monitoring, measurement and evaluation of initial "shovel-ready" projects.
3. **Sustained support:** Enable integrated policy, programs and legislation over the longer-term, including the establishment of a dedicated natural infrastructure fund.

<sup>1</sup> 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." From: Natural Infrastructure Framework: Key Concepts, Definitions and Terms. Canadian Council of Minister of the Environment (Final Draft).

<sup>2</sup> See Appendix 2 for a summary of mandates that support natural infrastructure investment.

<sup>3</sup> See Appendix 1 to this letter for detailed recommendations on what's needed across programs and policies to support these recommendations.

The case for the benefits of natural infrastructure is becoming increasingly clear. A recent report released by the Green Infrastructure Ontario Coalition highlights the economic impact of natural infrastructure solutions in Ontario. It calculated that the sector contributed \$8.33 billion in GDP and 122,000 jobs in the province in 2018.<sup>4</sup> Comparing that to Ontario's total sector jobs, that aligns it just behind the real estate sector (which employed an estimated 166,000). Previous reports, such as from the Intact Centre on Climate Adaptation, the International Institute for Sustainable Development<sup>5</sup> and the Insurance Bureau of Canada<sup>6</sup> have highlighted the high return on investment in natural infrastructure projects across Canada, for climate resilience and disaster risk reduction, in particular, to flooding, which has emerged as the costliest and most pervasive natural disaster nationally in the past decade. In addition, a 2019 Environment and Climate Change Canada commissioned report found that for comparable infrastructure outcomes, nature-based infrastructure solutions provide significant additional benefits and more often at much lower cost as compared to grey alternatives.<sup>7</sup>

Beyond the size of the sector, natural infrastructure efforts require the collaboration of a diversity of partners, including: municipal planners, landscape architects, engineers, biologists, farmers, non-governmental organizations and academics (to name just a few). This diversity of partners also reflects the diversity of employment opportunities from design, to project management, to site construction, to horticulture, and long-term maintenance, evaluation and monitoring.

There are thousands of "shovel-ready" and "shovel-worthy" projects across the country and within Indigenous communities. Research by a number of groups, including a pending analysis by the Our Living Waters Network, adds fodder to the mounting evidence on the opportunities, citing projects across the country, communities, and nations. The more than 250 curated projects cover a diverse range of works, including: creek restorations; rain gardens; household green infrastructure tools; efforts to fill science and data gaps; flood management; wetland restoration in both urban and agricultural communities; tree plantings; and bioswales. In addition, organizations such as the Municipal Natural Assets Initiative have proven methodologies and tools to help local governments assess, plan and implement natural asset management projects that deliver core local government services. Deploying these methods as part of a larger investment in natural infrastructure would help local governments plan and design effective projects for funding under existing programs, such as DMAF and ICIP.

In addition, organizations such as the Municipal Natural Assets Initiative have proven methodologies and tools to help local governments assess, plan and implement natural asset management projects that deliver core local government services. Deploying these methods as part of a larger investment in natural infrastructure would help local governments plan and design effective projects for funding under existing programs such as the Disaster Mitigation and Adaptation Fund (DMAF) and the Investing in Canada Infrastructure Program (ICIP).

There are also numerous projects that have been cancelled or put on hold due to the economic downturn, which could quickly and easily be revitalized with renewed funding. In many cases plans have already been developed, but projects cannot move forward due to lack of money to hire staff or purchase supplies.

Our consortium will continue our efforts to develop a long-term roadmap to ensure that the natural infrastructure movement is normalized municipally, provincially and federally. In looking to solve our infrastructure challenges across the country, natural infrastructure solutions will be a top priority.

There is no silver lining in the devastation that COVID-19 has brought to our communities, our households, our country. We can, however, make sure that the responsive investments truly advance more resilient, healthy and sustainable communities into the future. We welcome and request the opportunity to explore this conversation with you all in more detail.

Signed,

*List of signatories below*

cc: Hon. Catherine McKenna, Minister of Infrastructure and Communities  
Hon. Jonathan Wilkinson, Minister of Environment and Climate Change  
Hon. Seamus O'Regan, Minister of Natural Resources  
Hon. Marie-Claude Bibeau, Minister of Agriculture and Agri-Food  
Hon. Bill Blair, Minister of Minister of Public Safety and Emergency Preparedness  
Hon. Steven Guilbeault, Minister of Canadian Heritage

**Attachments:**

Appendix 1 - Policy and Program Recommendations to Support Natural Infrastructure Investment

Appendix 2 - Mandates Supporting Natural Infrastructure Investments

<sup>4</sup> [https://greeninfrastructureontario.org/app/uploads/2020/04/Economic-Impact-Assessment-of-GI-Sector-in-Ontario\\_Online.pdf](https://greeninfrastructureontario.org/app/uploads/2020/04/Economic-Impact-Assessment-of-GI-Sector-in-Ontario_Online.pdf)

<sup>5</sup> <https://www.iisd.org/sites/default/files/publications/savi-pellys-lake-stephenfield-canada-en.pdf>

<sup>6</sup> <http://assets.ibc.ca/Documents/Resources/IBC-Natural-Infrastructure-Report-2018.pdf>

<sup>7</sup> <https://www.horizonadvisors.org/natural-infrastructure-benefits>

***List of Signatories (Alphabetical by Organization)***

Lara Ellis	Senior Vice-President	ALUS Canada
Silke Nebel	Vice-President, Conservation and Science	Birds Canada
Theresa McClenaghan	Executive Director and Counsel	Canadian Environmental Law Association
Lindsay Telfer	National Director	Canadian Freshwater Alliance
Florence Daviet	National Forest Program Director	Canadian Parks and Wilderness Society
Glenn O'Connor	President	Canadian Society of Landscape Architects
Robert Haller	Executive Director	Canadian Water and Wastewater Association
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Rob Keen	Chief Executive Officer	Forests Ontario / Forest Recovery Canada
Amy Taylor	Chief Executive Officer	Green Analytics
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Jennifer Court	Executive Director	Green Infrastructure Ontario Coalition
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Andre Vallillee	Environment Program Director	Metcalf Foundation
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Steve Hounsell	Chair	Ontario Biodiversity Council
Andrew Stegemann	Director	Our Living Waters
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Sébastien Doiron	Planning Director	Southeast Regional Service Commission
Joanna Kerr	President and Chief Executive Officer	Tides Canada
Aaron Hill	Executive Director	Watershed Watch Salmon Society
Mary MacDonald	Senior Vice President and Chief Conservation Officer	World Wildlife Fund - Canada

## Appendix 1 - Policy and Program Recommendations to Support Natural Infrastructure Investment

### 1 Get Money Moving

The following actions could be taken to support quick movement of money and resources in support of natural infrastructure.

- a. Expand funding and support for municipality and community “readiness” assessments and preparation for future work, including:
  - i. Greenhouse Gas (GHG) assessments (ECCC / INFC );
  - ii. Climate risk analysis and adaptation planning (ECCC);
  - iii. Species at Risk (SAR) assessments (ECCC);
  - iv. Afforestation and deforestation reduction (ECCC / NRCAN);
  - v. Natural asset and regulatory barrier assessments (INFC / ECCC) to develop and support the application of tools to quantify natural infrastructure benefits (GHG, water quality, biodiversity, costs etc.).
- b. Make immediate funding available to advance natural infrastructure projects via a “start up” Natural Infrastructure Fund (INFC) and monitoring program (INFC and ECCC). This would include:
  - i. Support for pilot initiatives;
  - ii. Establishing standardized monitoring and evaluation;
  - iii. Strengthening local supply chain for native plants and saplings;
  - iv. Support across sectors including small businesses, municipalities, science and academic institutions, and non-governmental organizations.

### 2 Keep Money Moving

via medium term investments and adjustments in existing programs.

- a. Revise infrastructure funding program requirements, including DMAF and ICIP to facilitate broader NI investment (INFC w/ ECCC). Specifically:
  - i. Remove or revise capital asset and expenditure requirements to better incent natural infrastructure initiatives;
  - ii. Enable strategies for getting smaller, more numerous, funding dockets out the door (using intermediaries for example)
  - iii. Reducing bottle-necking by easing multiple jurisdiction requirements.
- b. Fund science gaps as needed to support the development of tools, procedures and open-access data hubs to support publicly accessible data analysis (ECCC and NRCAN);
- c. Develop an ecosystem GHG emissions and biodiversity screen for infrastructure investment/ criteria to assess the GHG emissions from downstream impacts of destroying natural assets for climate resilience and disaster risk reduction.

### 3 Sustained Support

via policy evolution and programs for mainstreaming.

- a. Develop simplified GHG offset protocol or other incentive programs for “natural asset” landowners (ECCC);
- b. Support the development of clear metrics for natural infrastructure outcomes, such as lower costs related to disasters, and cleaner water;
- c. Develop public-private finance mechanisms to advance natural infrastructure solutions;
- d. Support the development of consistent and clear regulations and policy tools in provinces and municipalities that prioritize natural infrastructure options for infrastructure needs, (for example, to allow natural assets in public service accounting frameworks, more stringent requirements to manage stormwater on site, etc.);
- e. Establish an inter-departmental working group alongside an expert advisory committee to streamline ministry programs, identify government-wide targets, monitoring and outcome measure for natural infrastructure projects across ministries (INFC, ECCC, AAFC, NRCAN, PSC, DFO);
- f. Support education and professional development of the sector.

## Appendix 2 - Mandates Supporting Natural Infrastructure Investments

The benefits of natural infrastructure support a number of priority mandates across federal departments:

Mandate References that Support Natural Infrastructure Investment	Departments
Launch a new call for proposals under the Disaster Mitigation and Adaptation Fund to address the impacts of climate change, adjusting the program as required to ensure that the most impactful projects are supported, including those related to natural infrastructure, whether they are from small, rural and Indigenous communities or large urban centres.	INFC
Work with the Federation of Canadian Municipalities through the Green Municipal Fund, the Municipalities for Climate Innovation Program and the Municipal Asset Management Program to build climate resilience, reduce greenhouse gas emissions, make better decisions, and monitor investments and ensure they reduce emissions from residential, commercial and multi-unit buildings.	INFC
Implement the Pan-Canadian Framework on Clean Growth and Climate Change, while strengthening existing and introducing new greenhouse gas reducing measures to exceed Canada's 2030 emissions reduction goal and beginning work so that Canada can achieve net-zero emissions by 2050.	ECCC
operationalize the plan to plant two billion incremental trees over the next 10 years, as part of a broader commitment to nature-based climate solutions that also encompasses wetlands and urban forests.	NRCAN ECCC
Create a new Canada Water Agency to work together with the provinces, territories, Indigenous communities, local authorities, scientists and others to find the best ways to keep our water safe, clean and well-managed	ECCC AAFC
Help cities expand and diversify their urban forests. You will both also invest in protecting trees from infestations and, when ecologically appropriate, help rebuild our forests after a wildfire.	NRCAN ECCC
Complete all flood maps in Canada.	ECCC NRCAN
Introduce new greenhouse gas reducing measures to exceed Canada's 2030 emissions reduction goal and begin work so that Canada can achieve net-zero emissions by 2050.	ECCC
A new ambitious plan to conserve 25 percent of Canada's land and 25 percent of Canada's oceans by 2025, working toward 30 percent of each by 2030.	ECCC
Develop further protections and take active steps to clean up the Great Lakes, Lake Winnipeg, Lake Simcoe and other large lakes.	ECCC
Continue to work to protect biodiversity and species at risk, while engaging with provinces, territories, Indigenous communities, scientists, industry and other stakeholders to evaluate the effectiveness of the existing Species at Risk Act and assess the need for modernization.	ECCC
Support research and provide funding so that municipalities have access to domestic sources of climate-resilient and genetically diverse trees that will increase the resilience of our urban forests.	NRCAN
Work with the Minister of Families, Children and Social Development, who is the Minister responsible for the Canada Mortgage and Housing Corporation, to create a new low-cost national flood insurance program to protect homeowners at high risk of flooding and without adequate insurance protection, as well as to develop a national action plan to assist homeowners with potential relocation for those at the highest risk of repeat flooding.	PSC