



## Report to Council

### From the Office of Councillor Amy Lubik

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Date: January 7, 2020  
Subject: Resolution seeking Canadian Government implementation of funding and programs supporting natural solutions for climate change

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#### Purpose

To propose of this report is to seek support to submit a resolution requesting funding and supports for natural solutions to climate-related Adaption and Mitigation for FCM for consideration at the 2020 FCM convention. Co-sponsorship in collaboration with Councillor Brittny Anderson from Nelson, BC.

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#### Recommendation

**THAT the following resolution regarding Funding and Supports for Natural solutions to Climate-related Adaption and Mitigation be endorsed by the City of Port Moody and forwarded as a late resolution for consideration at the 2020 FCM June meeting as recommended in the report dated December 24th, 2019 from Cllr. Amy Lubik regarding Funding and Supports for Natural Solutions for Climate-related Adaption and Mitigation:**

**WHEREAS Climate change already impacts both grey and green infrastructure in Canadian communities and the cost associated with repair and adaptation is escalating;**

**AND WHEREAS downloading of funding responsibility onto local governments continues to rise despite having limited abilities to raise new capital other than regressive taxes, such as property tax, impacting the ability of municipalities to address critical issues;**

**AND WHEREAS the Federation of Canadian Municipalities (FCM) and the Insurance Bureau of Canada (IBC) recently released preliminary findings that estimate the total cost of adapting municipal infrastructure for the impacts of climate change to be \$5.3 billion annually;**

**AND WHEREAS evidence from Canada and the U.S. demonstrates that investment in disaster mitigation and adaptation saves money in the long-term on a scale of 1:6, where for every \$1 invested in adaptation, there is an estimated \$6 in avoided future costs;**

**AND WHEREAS natural climate solutions are key to advancing both greenhouse gas mitigation and climate change adaptation and local governments are critical to the effective implementation of these solutions;**

**THEREFORE BE IT RESOLVED THAT the Canadian Government implement funding and programs supporting natural solutions for climate change, including but not limited to the conservation and restoration of urban forests, wetlands, coastal areas, agricultural lands, in partnership with local and regional governments, including Indigenous governments where welcome;**

**And be it further resolved that any natural climate solution programs be transfer based, not grant-dependent, to maintain flexibility in order to meet the needs of all Canadian local governments experiencing a wide range of climate change impacts and adopting a wide range of climate solutions that are appropriate to their unique situation and population.**

**AND THAT the above resolution be forwarded to all other FCM local governments for support.**

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## **Background**

Local governments across Canada are struggling with the ever-increasing downloading of responsibility of delivering services, infrastructure, and housing. This does not come with the necessary funding to carry out these services, particularly in the long term. Increasingly, local governments must compete for grants to pay for projects, meaning that those municipalities that have the capacity are more likely to receive funding; which puts communities in competition, instead of collaboration. Local governments, with limited resources but as the closest segment of government to our residents, face the social determinants of health, such as housing, social inclusion, poverty reduction and food security regularly and struggle to not extend the scope of our responsibility.

This lack of resources is particularly problematic when we come to climate change, which threatens all of our communities and is already having an impact. In Port Moody, we know we will be grappling with sea- level rise, increased wildfire threat, extreme heat which puts the health of our residents at risk, changes in precipitation which will strain our infrastructure and our drinking water systems, and challenges to food security/ food sovereignty, to give a few examples; at the same time, local and Indigenous governments across Canada are dealing with permafrost melting and massive storms. We have talked about incorporating natural asset management into our climate and infrastructure planning, but though it may be less costly in the long term, it may be difficult to do because of human and financial resources. This is a problem that many local governments are facing.

The funding coming from the federal government is appreciated and helpful, but it reaches a relatively small number of local governments; for example, funding for carbon reductions by 2050 are funding less than 10 municipalities per province (<https://fcm.ca/en/news-media/news-release/ten-organizations-selected-help-reach-significant-carbon-emission-reductions>). Other transfers are also appreciated, but they do not reach even half of the funding needs of local governments. Further, according to [the latest IPCC report](#), we need to moving much faster than we can with current resources.

Many communities are interested in protecting and enhancing our natural assets to mitigate and adapt to climate change; however, we lack funding, guidance and practical supports to undertake this work. Indeed, local governments and supporting organizations are documented to be highly under resourced to deal with most climate change related infrastructure management ([Craft et al. 2015](#)).

The purpose of this resolution to FCM is to ask the federal government to fill the gap in funding streams, which currently in a best-case scenario have the potential for funding 40% of climate related funding needs and does not provide funding for natural asset. Further, and just as importantly, as Canadian local governments are dedicated to reconciliation, we realize that climate change impacts those most marginalized and without resources, and that Indigenous communities are facing the same challenges that other local governments do. Historically, the issues that plague other local governments have been front and centre for some Indigenous communities, including lack of water infrastructure, lack of adequate housing, food insecurity and lack of culturally appropriate services. As Canadian local governments work to address climate change preparedness, it is important that we ask the same supports for Indigenous communities as we do for other residents.

## Discussion

**Municipal downloading is a big problem.** According to the 2014 [Report Who's Picking Up the Tab? From the Columbia Institute](#), "The World's population is shifting to cities and that means services traditionally provided by local governments are growing in scale and importance. From public transit and recreation facilities, to drinking water treatment, sewage infrastructure, and policing and fire services, local government services are at the centre of our daily lives, our health and economic prosperity. These services are provided for less than the typical cost of basic telephone and Internet and they are provided by the level of government that has by far the smallest share of tax revenue. (The Federation of Canadian Municipalities tags the local government portion at only 8 cents out of every tax dollar.)

Since the 1950s, Canada's infrastructure responsibilities have shifted from the level of government with the largest and most growth-responsive revenue base—the federal government—to the level of government with the smallest and least growth-responsive revenue base—local government. In 1955, the federal government accounted for 34 per cent of capital investment. By 2003, it had declined to 13 per cent. The municipal share increased from 27 to 48 per cent. Billions of dollars in federal cuts in transfer payments to provinces occurred in the mid-1990s. Spending and service cuts cascaded down to municipalities. Federal wastewater

treatment regulations, introduced in 2012, have billions of dollars in implications for local government infrastructure. Changes in cost-sharing and the growth of policing costs that local government pay for, but are under federal government control, have downloaded millions of dollars annually onto local governments. Local governments are finding themselves picking up the slack on housing, mental health, addiction, social services, and also wastewater treatment, diking and flood management, drinking water and forestry, as well as food security. We have only recently begun to understand the potential for green/ natural infrastructure to promote the [health of our community members](#), including potential for [creating jobs and reducing poverty](#), let alone the potential for climate change adaption and mitigation, and as such communities require supports that we do not currently have in understanding the benefits and implementing solutions. Though the majority of research has been done on more urban local governments, green infrastructure could also be a powerful tool for [rural and peri-urban communities](#).

According to [Matthews et al. \(2015\)](#), “green infrastructure typically refers to an interconnected network of multifunctional green-spaces that are strategically planned and managed to provide a range of ecological, social, and economic benefits. Examples of green infrastructure include green roofs, permeable vegetated surfaces, green alleys and streets, urban forests, public parks, community gardens and urban wetlands. Scholars recognize that green infrastructure can potentially improve residents’ health and wellbeing, provide food, lower wind speeds, reduce storm-water run-off, modulate ambient temperatures, reduce energy use and sequester carbon, among other ‘ecosystem service benefits’, although the extent of these benefits remains somewhat contested. Green infrastructure thus holds the potential to cushion cities against many expected climate change impacts.”

According to the [Green Infrastructure Ontario Coalition](#):

“Green infrastructure can play a role in enhancing community prosperity, be it economic, social or environmental. While each rural community faces its own unique set of challenges, they can experience some common issues, including out-migration, an aging population, lack of services, and aging infrastructure (Strengthening Rural Canada, 2016). Investing in green infrastructure can enhance prosperity by:

- Generating construction and maintenance jobs
- Creating recreational and educational opportunities
- Revitalizing downtown and streetscapes
- Expanding trail networks and outdoor recreation
- Attracting businesses, services, and new residents
- Postponing or eliminating the need for infrastructure upgrades
- Increasing groundwater supply and quality

[Further], green infrastructure is a key component of climate change resiliency planning because it is more adaptable to environmental fluctuations and stressors than traditional grey infrastructure. Green infrastructure can also help natural systems adapt and cope with the impact of climate change. Investing in green infrastructure can enhance resiliency by:

- Reducing the impact of a heavy rainfalls on a fixed-capacity storm sewer system
- Reducing the impact of extreme heat days on grey infrastructure and human health

- Providing services that are better able to recover following extreme weather events
- Providing essential food and habitat for many birds and pollinators
- Increasing connectivity between larger natural heritage features, such as forests and wetlands”

The costs of climate change are going to be big, but not being ready will cost us even more ([http://www.icleicanada.org/files/elected\\_officials\\_handbook\\_final\\_sm.pdf](http://www.icleicanada.org/files/elected_officials_handbook_final_sm.pdf) ). Green infrastructure could play an important part in climate adaptation and mitigation; however, the costs and benefits will be different depending on the needs and climates of local governments. As local governments, especially those with limited funding sources/ staff expertise, we do not have the resources to be as resilient to climate change as we need to be; despite this, municipalities are taking the lead on climate change (<https://www.theglobeandmail.com/life/adv/article-in-the-face-of-climate-change-municipalities-take-the-lead/>).

The same is true for Indigenous communities across Canada. Because Indigenous communities face the same challenges and have historically had more challenges than other communities, and because we that reconciliation means repairing historical systemic inequities, it is important that they be included in this request.

We have the political will; what we do not have is sufficient, consistent funding and supports that are easy to obtain for all local governments, not only those with the resources to continually apply for grants. Local Governments are leading the way on climate change and in light of the 2019 resolutions to UBCM, FCM, and our general policies Port Moody has been a leader in climate resilience.

### **Further Evidence of Climate Change-related Cost:**

- As the owners and operators of 60 percent of the public infrastructure that Canadians rely on daily, municipalities are on the front lines of climate change, susceptible to both chronic and acute climate risks. Addressing these risks by retrofitting infrastructure poses an additional burden on municipalities with limited financial capacity.

#### *Cost of Climate Change:*

- **\$5 billion:** Projected annual cost of extreme weather by 2020 (TD Economics, 2014).
- **\$21-43 billion:** Projected annual cost of climate change by 2050 (National Roundtable on the Environment and the Economy, 2011).
- Property damages from natural disasters and extreme weather averaged \$405 million per year between 1983 and 2008, but have risen dramatically to **\$1.8 billion of insured losses in 2018 (IBC, 2019)**.
- The health costs of extreme weather are estimated to be over **\$1.6 billion a year**.

#### *Return on Investment of adaptation:*

- A 2018 review of several thousand disaster mitigation projects in the US by the National Institute of Building Sciences identified an average cost-benefit ratio of **1:6**, where for every dollar invested in government-funded infrastructure projects, there was an estimated \$6 in avoided costs. (<https://www.fema.gov/natural-hazard-mitigation-saves-2017-interim-report>)
- In the context of natural infrastructure, a 2018 report by the INTACT Centre at the University of Waterloo concluded that maintaining natural wetlands can reduced flood damages by 29% in a

rural context and 38% in an urban context. ([https://www.intactcentreclimateadaptation.ca/wp-content/uploads/2017/07/Wetlands-Report-Press-Release\\_July-12-2017.pdf](https://www.intactcentreclimateadaptation.ca/wp-content/uploads/2017/07/Wetlands-Report-Press-Release_July-12-2017.pdf))

#### Investment in Adaptation:

- FCM and the Insurance Bureau of Canada partnered in a research project assessing the level of investment the federal government should be making in adaptation infrastructure. Green Analytics was tasked with completing the analysis. The research assessed the investments currently being made by municipal governments on adaptation to public infrastructure and determined what percentage of local GDP this investment represents. This was then scaled up to a national level estimate based on regional weighted averages. The results demonstrate that the scale of investment needed nationally for adaptation is approximately \$5.3 billion per year, cost shared between all orders of government. (<https://fcm.ca/en/resources/investing-in-canadas-future>)

I understand that the deadline for submission to FCM has passed, but in discussions with FCM staff, we are hoping the board will still want to be see it go forward this year.

#### Other Option(s)

THAT the report dated January 7, 2020 from Cllr. Amy Lubik regarding Resolution seeking Canadian Government implementation of funding and programs supporting natural solutions for climate change be received for information.

#### Financial Implications

There are no financial implications.

#### Communications and Civic Engagement Initiatives

There are no communications or civic engagement initiatives.

#### Council Strategic Plan Objectives

In endorsing this recommendation Council's strategic plan objectives are met by demonstrating dedication to:

- Climate Change resilience;
- Reconciliation;
- Fiscal Responsibility;
- The health and wellness needs of residents;
- Emergency preparedness;
- Social issues; and
- Courage to lead and embrace new ideas.