

Restoring what we ruined may be best defence; Climate change is here and costing us billions, but what can we do about it?

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Article Summary

Disaster costs are rising so quickly insurers have started looking at how best governments and individuals can adapt. The Insurance Bureau of Canada hired researchers at the University of Waterloo, the Intact Centre on Climate Adaptation and the International Institute for Sustainable Development to look at Canada's most expensive and extensive problem - flooding - and come up with the most cost-effective mitigation measures.

The study released last week acknowledges that to combat Canada's flooding due to heavier than average rainfall and sea-level rise, higher dikes, diversion channels, dams and better wastewater and sewage treatment plants are needed.

But it concluded that in many places restoring shorelines, riverbeds and wetlands to what they were before we interfered with them is both cheaper and more beneficial.

Having partly built our way into these problems, the inclination might be to build ourselves out. But the Insurance Bureau's report, *Combating Canada's Rising Flood Costs*, says conservation and restoration of so-called "natural infrastructure" - wetlands, forests and floodplains - offers other benefits that can include habitat creation or improvement, recreational opportunities and even savings through carbon sequestration.

Full Article

Property and casualty insurance payouts in Canada have more than quadrupled in the last nine years to an average of \$1.8 billion. Between 1983 and 2008, they averaged \$405 million a year.

While it's troubling for the insurance industry, it's financially catastrophic for individuals and for governments that bear three to four times that cost.

Public Safety Canada reported the number of natural disasters increased dramatically between 1970 and 2015. Canada's auditor general reported that between 2009 and 2015, the disaster-related compensation paid out to the provinces and territories was greater than any of the previous 39 fiscal years combined.

But there are billions of dollars more pending as class-action lawsuits make their way through the courts. Among them are: a \$950-million one brought by 4,000 residents of Manitoba First Nations following the 2011 flood for negligence, nuisance and breach of treaty rights; a 15-person negligence suit against a Maple Ridge, B.C., developer, contractor, two engineering firms and the city of Maple Ridge after a 2010 flood; a \$900-million suit by Muskoka residents against Ontario alleging negligence; and two suits - one in Quebec and one in Ontario - alleging floods resulted from negligence in the design, construction, operation and maintenance of storm and sanitary sewer systems.

Canada's experience is far from unique. Globally, insurance claims for natural disaster damages hit their highest mark in 2017 - US\$135 billion, according to Munich Re, the world's largest reinsurance company.

In human terms, the cost is an estimated 10,000 lives.

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Among the study's startling statistics is that in B.C., 85 per cent of wetlands have been lost in the South Okanagan and over 70 per cent of the original wetlands have disappeared in the lower Fraser Valley. While B.C. has had to contend with unprecedented wildfires the past two years, it has so far been spared from major flooding.

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Gibsons, B.C., up the coast from Vancouver, is one of the report's case studies. It was the first municipality in North America to declare natural infrastructure as municipal assets. It used an assessment tool established by the Municipal Natural Assets Initiative to evaluate the worth of its aquifer and the natural ponds. What it found was maintaining and monitoring them to provide stormwater storage costs about \$30,000 a year. Engineering and building a storage facility would have cost nearly \$4 million.

With municipal elections underway, it's a timely report that raises key questions about how we have done urban development and how it could be done. It also underscores the urgent need for all levels of government to adapt physically and fiscally to climate change. Daphne Bramham is a journalist with the Vancouver Sun. dbramham@postmedia.com