

RISING SEAS AND SHIFTING SANDS

COMBINING NATURAL AND GREY INFRASTRUCTURE TO PROTECT CANADA'S EASTERN AND WESTERN COASTAL COMMUNITIES



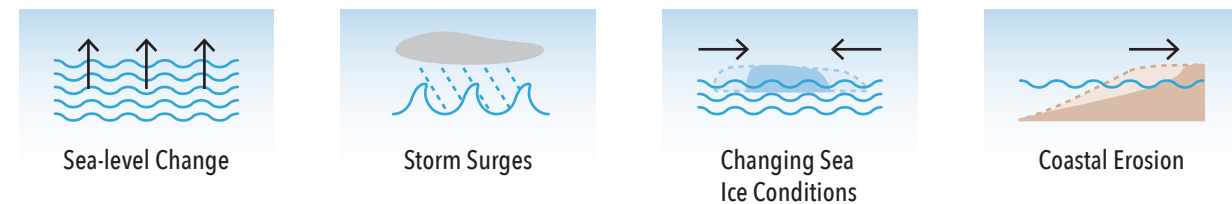
UNIVERSITY OF WATERLOO

INTACT CENTRE ON CLIMATE ADAPTATION

Coastal flooding and erosion are a direct threat to the health and safety of Canada's coastal population. Action is required **now** to manage these risks, which are growing due to effectively irreversible climate change and sea level rise. The 'Rising Seas and Shifting Sands' report describes how Canada can scale-up the use of nature-based solutions, in tandem with grey infrastructure, to protect communities along Canada's East and West coastlines.

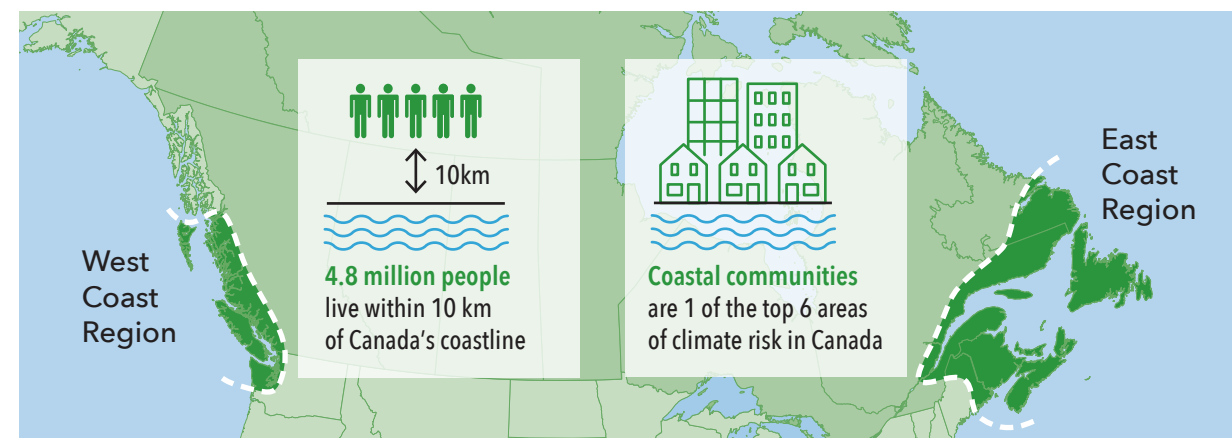
Impacts of Flooding on Canada's Marine Coasts

Changing climate is increasing the severity and frequency of coastal flooding and erosion.



Canada's Coastal Population is at Risk

The impacts of coastal flooding and erosion threaten almost 15% of Canada's population.



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Coastal Protection Measures in Canada

Different coastal protection measures are utilized each with advantages and disadvantages. Measures can be combined to fulfill multiple objectives within coastal communities. Here is a small selection:

Nature-Based Solutions Have a Vital Role in Managing Coastal Flood and Erosion Risk

International experience and guidance demonstrate that nature-based measures provide many benefits to coastal communities:

Scale-up the Use of Nature-Based Solutions

Three courses of action are recommended to scale-up the use of nature-based solutions for coastal protection in Canada:

The urgency for Canada to better prepare for climate change and sea-level rise along the coast is one of its greatest challenges. The sea level of the past will not be the sea level of the future, and decision makers should prepare coastal communities accordingly.

See the *Rising Seas and Shifting Sand: Combining Natural and Grey Infrastructure to Protect Canada's Eastern and Western Coastal Communities* report at: <https://www.intactcentreclimateadaptation.ca/rising-seas-and-shifting-sands-combining-natural-and-grey-infrastructure-to-protect-canadas-eastern-and-western-coastal-communities/>