

Canada is warming at **twice** the global rate.

(Environment and Climate Change Canada, 2019)

What causes sea-level rise?

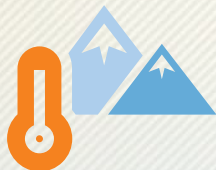


Thermal expansion

Warmer water expands. Nearly 50 per cent of sea level rise is from warmer water taking up more space.

Glacial melt

Glaciers are warming and melting faster than snow can replenish them.



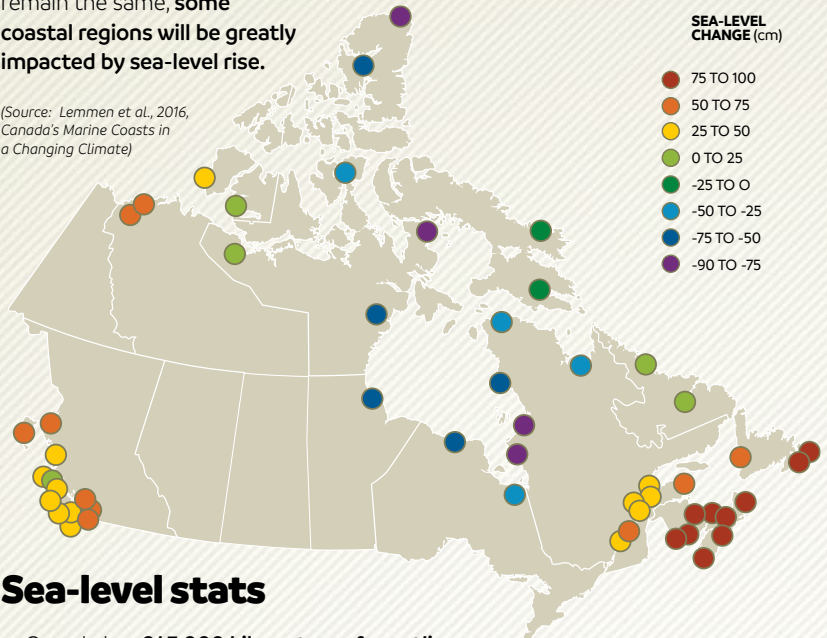
Loss of ice sheets

Massive amounts of ice in Antarctica and Greenland are disappearing, putting more water into oceans.

Sea-level rise areas of concern

By 2100, if carbon emissions remain the same, **some coastal regions will be greatly impacted by sea-level rise.**

(Source: Lemmen et al., 2016, Canada's Marine Coasts in a Changing Climate)



Sea-level stats

- ✚ Canada has **243,000 kilometres of coastline**
- ✚ **6.5 million Canadians** live in impacted areas
- ✚ **Alberta and Saskatchewan** are the only provinces without a coastline



Ice, ice maybe

By 2050, it's possible that **Canada's North will be ice-free** a month (or more) each year

Salt marshes can help.

What wetlands can do:

- ✚ act as nature's defence system to rising water levels
- ✚ reduce coastal energy
- ✚ lower the amplitude and speed of ocean waves
- ✚ mitigate storm damage by absorbing storm energy
- ✚ shield coastlines from erosion
- ✚ filtrate water by intercepting pollution

