

Flood Impact Maps: A Standardized Approach of Understanding Vulnerable Landscapes

CHANGES IN FLOODPLAIN REGIMES OVER CANADA DUE TO CLIMATE CHANGE IMPACTS: OBSERVATIONS FROM CMIP6 MODELS

Water experts and flood modellers regularly explore the efficacy of new and upgraded climate models in representing flood inundation dynamics and how they will be impacted in the future by climate change. General Circulation Models can be used to examine the probable changes in Canada’s floodplain regimes. A comprehensive study was completed and consisted of hydrodynamic flood modelling and statistical experiments that can be used to derive high-resolution Canada-wide floodplain maps for 100 and 200-yr return periods. The [study led by M. P. Mohanty and S. P. Simonović](#) found a significant rise in flood inundation extents in the future periods, particularly intense over western and eastern regions.

WHAT ARE CANADA FLOOD IMPACT MAPS USED FOR?

- Overall understanding of the extent of flood hazard across the country
- Identification of high-risk areas that require more detailed mapping
- Investigation of regional impacts at the inundation (flooding) level
- Investigation of the changes in floodplain regimes for future climates

EXPLORE THE FLOOD MAP VIEWER

The Flood Map Viewer is a Canada-wide interactive web-based tool that helps the public understand flood risk in their area. The website includes the following pages:

Maps

Visualization of flood and complementary maps

Learn more

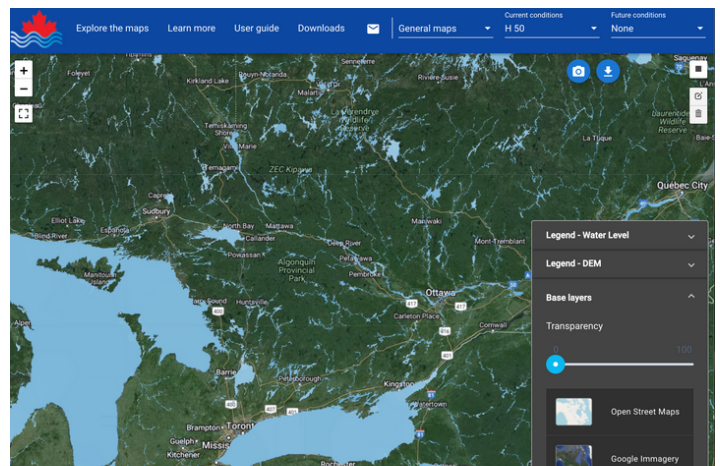
Methodology used to produce the flood maps

Download

Download page for the maps and other files

User Guide

Understand how to use this tool



www.floodmapviewer.com

ADDITIONAL RESOURCES

- Explore the [Flood Map Viewer](#) and download maps for your area.
- Learn more about [Dr. Simonović's work](#).
- Read [publications](#) and [Water Resources Research Reports](#) about climate change, flooding, and flood impact mapping.
- Discover resources from the [Institute for Catastrophic Loss Reduction \(ICLR\)](#) and learn how you can take steps to protect your home.
- Learn about the [10th International Conference on Flood Management](#) in May 2026.

