

CANADA'S CHANGING CLIMATE

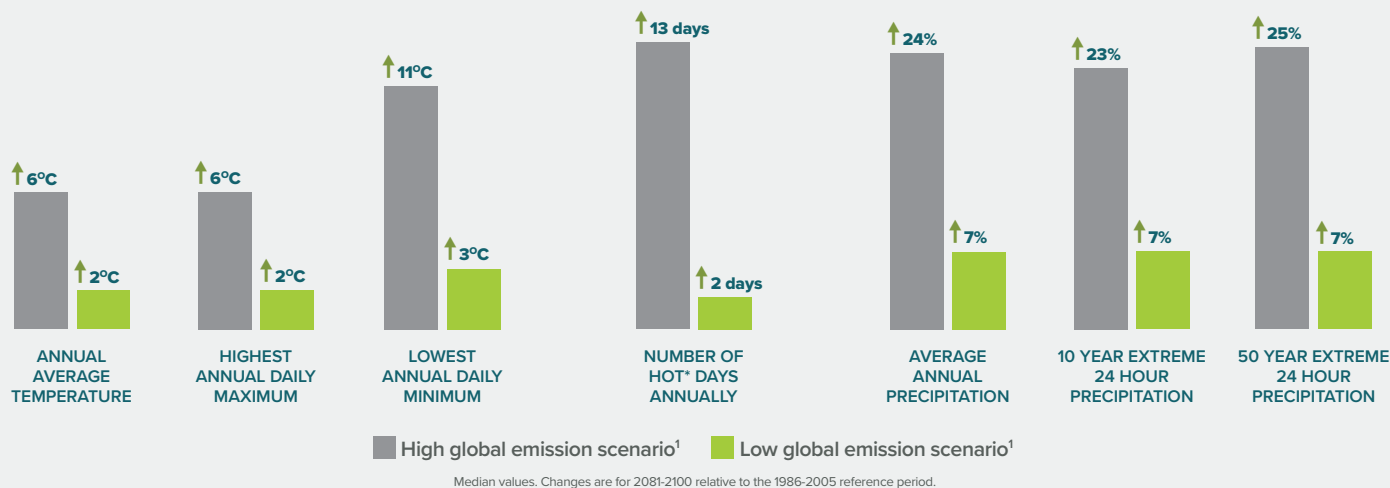
PROJECTED CHANGES THIS CENTURY



Canada's climate has warmed and will warm further in the future, driven by human influence. Global emissions of carbon dioxide from human activities will largely determine how much warming the country—and the world—will experience in the future.

HIGH VS LOW EMISSION PROJECTIONS

TWO VERY DIFFERENT FUTURES FOR CANADA



¹ High and low global emission scenarios. The high emission scenario RCP 8.5 is associated with an increase in global average temperature of about 3.7 °C by late century relative to the 1986-2005 reference period. The low emission scenario RCP 2.6 is associated with an increase in global average temperature of about 1.0 °C by late century relative to the 1986-2005 reference period.

*Hot day = daily maximum temperature is above 30°C

THE EFFECTS OF WIDESPREAD WARMING ARE EVIDENT IN MANY PARTS OF CANADA

EFFECTS ARE PROJECTED TO INTENSIFY IN THE FUTURE



Extreme warm temperatures have become hotter and even hotter temperatures are projected for the future. This will increase the severity of heatwaves, and contribute to increased drought and wildfire risk.



Extreme high water-level events along Canada's Atlantic, Pacific, and Beaufort coastlines are projected to increase in frequency and magnitude.



Increases in ocean acidity and reductions in subsurface oxygen conditions are projected to become more widespread and detrimental to marine life.



Changes in the seasonal availability of fresh water are projected with an increased risk of water supply shortages in summer.



Reductions in sea ice area are projected across the Canadian Arctic in the summer and Atlantic Canada in the winter. Multi-year ice drifting from the Canadian Arctic Archipelago and Greenland will still present a navigation hazard.



Reductions in seasonal snow accumulation are projected for southern Canada and declines in snow cover duration for all of Canada.

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