

CANADA'S CHANGING CLIMATE

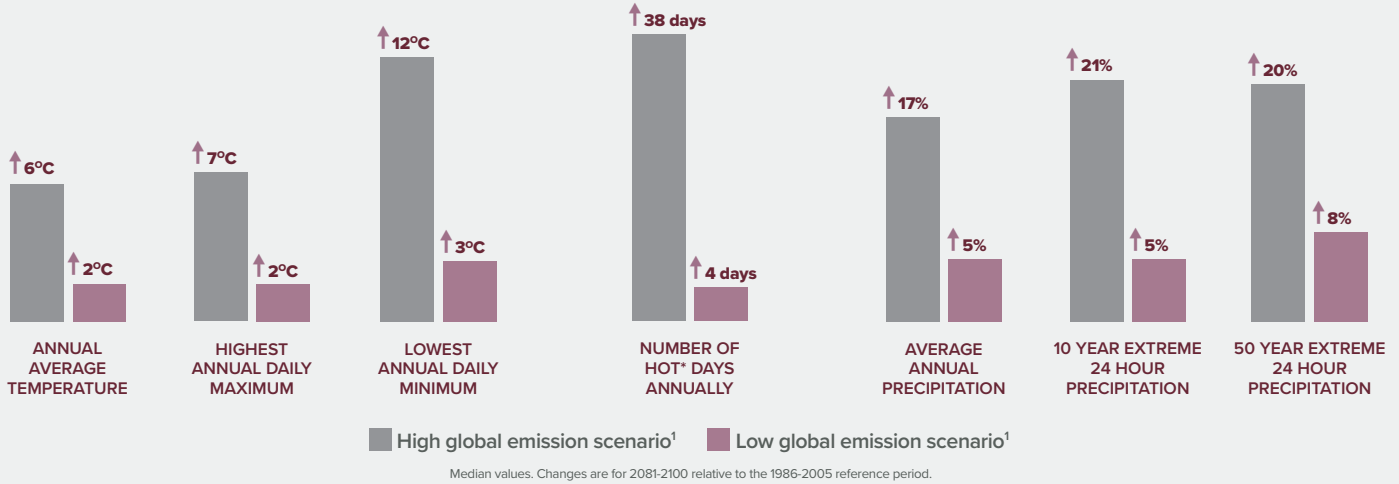
PROJECTED CHANGES THIS CENTURY FOR ONTARIO



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 ONTARIO



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 WARMING ARE EVIDENT IN ONTARIO

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.



Local sea level is projected to fall along the Hudson Bay and James Bay coastlines, due to local land uplift exceeding the effects of global sea level rise.



Lake levels in the Great Lakes have experienced large year-to-year variability. In the future, average lake levels may decline due to evaporation exceeding increases in precipitation, but this projection is highly uncertain.



Seasonal sea ice cover has declined in Hudson Bay and James Bay, with more persistent ice-free conditions during summer and fall projected by mid-century.



The length of the snow season has declined, particularly in southern Ontario, and further declines are expected.



Growing seasons have already lengthened in Ontario. Growing seasons for warm season crops could lengthen by weeks by mid-century, and potentially by more than a month by late century.

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