

Climate Change in the Prairies

Projections for the Edmonton Region

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Western Canada and the prairies are warming faster than the rest of Canada, and at 3x the global rate.

Current Climate Trends



Temperatures rising since the early 1900s at double the observed global rate.



Warmer, drier winters.



Increased precipitation in spring and fall.

Future Climate Projections



An additional warming of 2 degrees Celsius by 2050.



Increased precipitation in spring (11%) and fall (7%). Drier summers and winters.



Projected climate will be similar to that of Brooks, Alberta.



More extreme precipitation and weather events.



Loss of wetlands due to reductions in wetland depth, area, and permanence

Loss of and changes in wildlife and plant species

Expansion of grasslands as forests are lost to rising temperatures, pest outbreaks and more severe forest fires



Precipitation patterns will peak at times not ideal for crop production

Increased heat stress on wildlife and livestock

Longer growing season and changes in viable crop varieties and weed species



Degrading infrastructure with increasing freeze-thaw cycles

Changes in costs for energy and heating

Damage to infrastructure and increased risk of failure with extreme weather