



# THE CHANGING CLIMATE OF WATERLOO REGION AND WELLINGTON-DUFFERIN-GUELPH AREAS

Our local climate is projected to get **WARMER, WETTER, & MORE EXTREME**

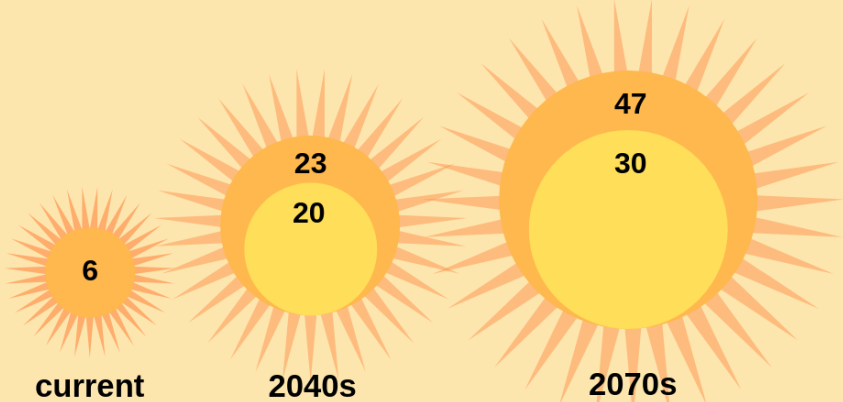
## More Extreme Summer Heat


 Annual average temperature increase <sup>(a)</sup> **+ 3-4°C by the 2070s**

Average number of **hot days of 31°C or more** per year <sup>(a)</sup>

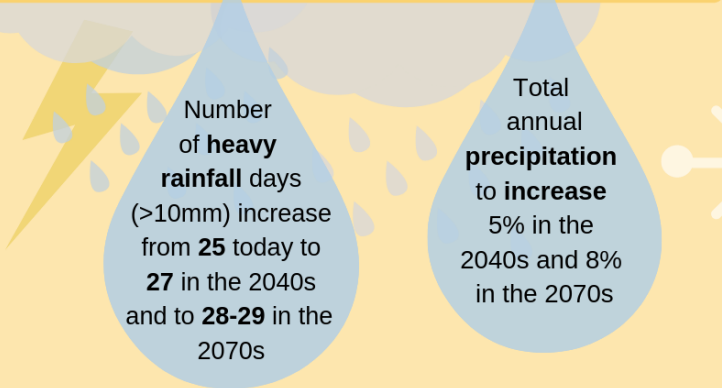
- If current emissions growth trends continue
- If emission pledges to the Paris Agreement are achieved\*

**WARM NIGHTS** (>20°C at night)  
4-6 more tropical nights by the 2040s  
10-21 more tropical nights by the 2070s

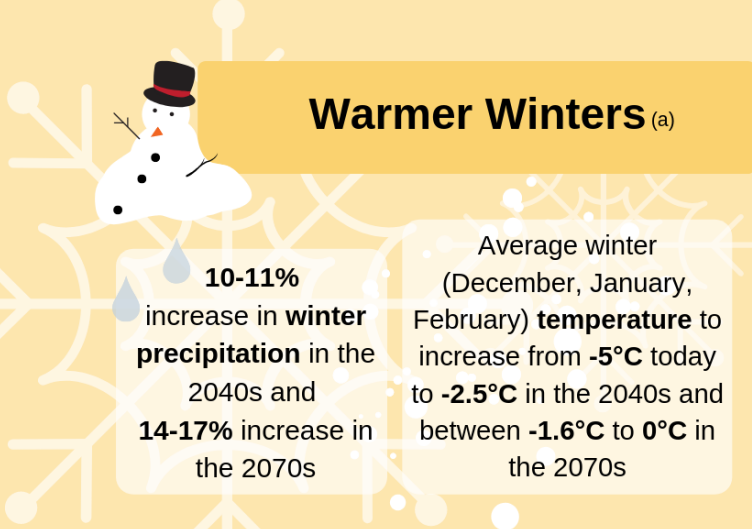


 **HEAT WAVE PROBABILITY** (3 or more days) <sup>(c)</sup>  
**doubles** in the 2050s  
**triples** in the 2080s

## More Intense Rain and Storms <sup>(a)</sup>



## Warmer Winters <sup>(a)</sup>



\*Canada's Paris Agreement emission pledge is -30% from 2005 levels by 2030 and the long term goal is -80% by 2050  
 (a) Climate Atlas of Canada - baseline period ("current"): 1976-2005, projection periods: 2040s (2021-2050), 2070s (2051-2080)  
 (b) Tropical night: a tropical night occurs when the lowest temperature of the day does not go below 20 °C  
 (c) World Bank Climate Change Data Portal - Heat wave probability: probability of a heat wave (of 3 or more days when the daily temperature is above the current 95th percentile)

