

SOUTH HURON'S CHANGING CLIMATE

FUTURE CLIMATE PROJECTIONS UNDER A HIGH EMISSIONS SCENARIO

Future Scenario: High emissions scenario where greenhouse gas emissions globally increase at current rates to the end of the century

Projection • Immediate future: refers to the period of 2021 to 2050

Periods • Near future: refers to the period of 2051 to 2080

Baseline Period: The period of 1978 to 2005 was used as the baseline to quantify the anticipated future projections.

Aligned with observed global changes, South Huron's climate is also changing and will have a continued impact on local weather, environment, economy, and the entire community.

Temperature



- **↑ Annual Temperature**
by 2.1 °C (immediate) and 4.3 °C (near)
- **↑ Winter Temperature**
by 2.3 °C (immediate) and 4.6 °C (near)
- **↑ Very Hot Days (over 30 °C)**
by 19 days (immediate) and 44 days (near)
- **↓ Winter Days (temp. at least -15 °C)**
by 19 days (immediate) and 44 days (near)



Precipitation

- **↑ Annual Precipitation**
by 6% (immediate) and 9% (near)
- **Seasonal Precipitation:**
Spring: ↑ by 10% (immediate) and 16% (near)
Winter: ↑ by 10% (immediate) and 17% (near)
- **↑ in Maximum Precipitation and Heavy Precipitation Days (1 and 5 days)**



Extreme Weather Events

- **↑ Heatwaves**
in length (# of days) and number of events
- **↑ Heavy Rainfall and Drought Extremes**
- **↑ Freezing Rain, Ice, and Snow Events**
particularly in January and February
- **↑ Wind Gusts for all of Southern Ontario**

Seasonal Changes



- **↑ Frost Free Season**
by 25 days (immediate) and 49 days (near)
- **Earlier date of last spring frost**
Later date of first fall frost
- **↓ Annual Freeze-Thaw Cycles**
by 9% (immediate) and 22% (near)
- **↑ January & February Freeze-Thaw Cycles**
by 10% (immediate) and 20% (near)

*Data for South Huron's future climate projections retrieved from Climate Atlas (www.climateatlas.ca)