FUTURE CLIMATIC PROJECTIONS

Town of East Gwillimbury

April 2024

Sources: Canadian Climate Data and Scenarios Network, Climate Atlas of Canada Tool.

THIS INFOGRAPHIC WAS CREATED BY ORCCA

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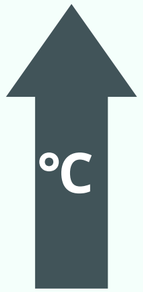
MEAN TEMPERATURES

The mean temperatures are projected to increase annually and in every season.

11.4°C

6.7°C

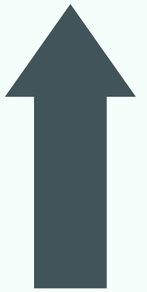
Annual



-0.4°C

-6.4°C

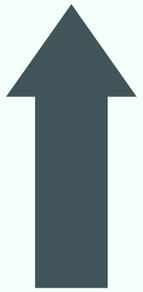
Winter
Dec - Feb



23.5°C

18.8°C

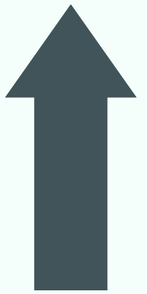
Summer
Jun - Aug



9.8°C

5.4°C

Spring
Mar - May



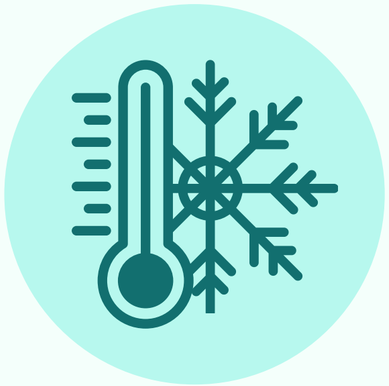
12.9°C

8.6°C

Fall
Sep - Nov

TWO TIME PERIODS: Bottom (Baseline: 1971-2000), Top (Future: 2051-2080)

SEASONAL MEAN TEMPERATURES



-0.4°C
2051-2080

-3.1°C
2021-2050

-6.4°C
Annual Baseline

Winter
Dec - Feb

9.8°C
2051-2080

7.8°C
2021-2050

5.4°C
Annual Baseline

Spring
Mar - May

23.5°C
2051-2080

21.1°C
2021-2050

18.8°C
Annual Baseline

Summer
Jun - Aug

12.9°C
2051-2080

11°C
2021-2050

8.6°C
Annual Baseline

Fall
Sep - Nov

ANNUAL MEAN TEMPERATURES

11.4°C
2051-2080

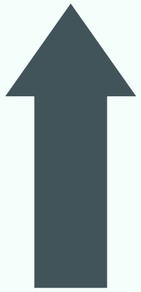
9.2°C
2021-2050

6.7°C
Annual Baseline

TEMPERATURES EXTREMES

Extreme heat is projected to increase annually and Ice Days, days that do not exceed 0°C, are expected to decrease.

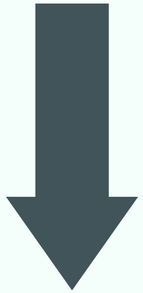
Days Above 30°C



50 days

9 days

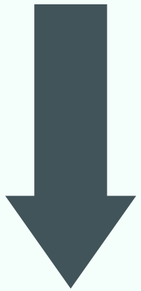
Days Below -15°C



4 days

28 days

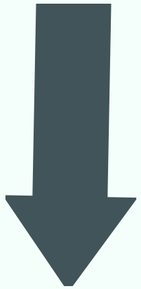
Icing Days



28 days

69 days

Frost Days



103 days

155 day

TWO TIME PERIODS: Bottom (Baseline: 1971-2000), Top (Future: 2051-2080)

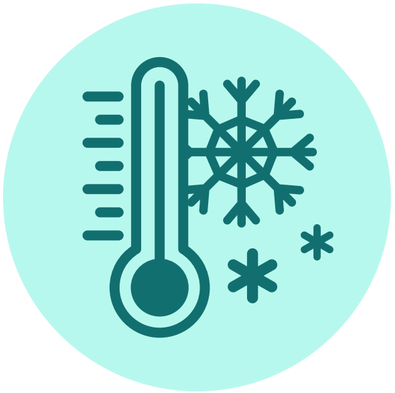
TEMPERATURE EXTREMES

Days Above 30°C

50 days
2080s

26 days
2050s

9 days
Baseline



Days Below -15°C

4 days
2080s

12 days
2050s

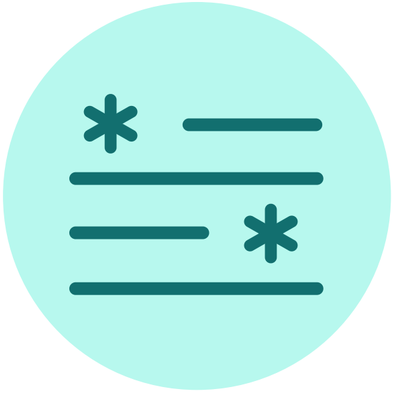
28 days
Baseline

Icing Days

28 days
2080s

46 days
2050s

69 days
Baseline



Frost Days

103 days
2080s

128 days
2050s

155 days
Baseline

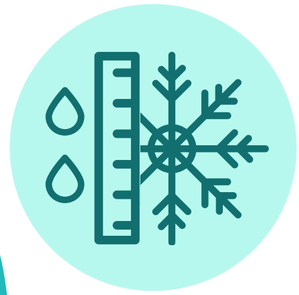
MEAN PRECIPITATION

Annual precipitation is expected to increase. All seasons except for summer are projected to get significantly wetter.

Annual

901 mm

795 mm



Winter
Dec - Feb

217 mm

178 mm

Summer
Jun - Aug

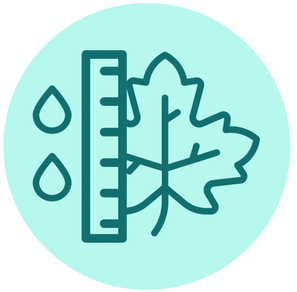
229 mm

222 mm

Spring
Mar - May

232 mm

199 mm



Fall
Sep - Nov

244 mm

220 mm

TWO TIME PERIODS: Bottom (Baseline: 1971-2000), Top (Future: 2051-2080)

SEASONAL MEAN PRECIPITATION

Winter
Dec - Feb

217 mm
2051-2080

204 mm
2021-2050

178 mm
Baseline

Spring
Mar - May

232 mm
2051-2080

217 mm
2021-2050

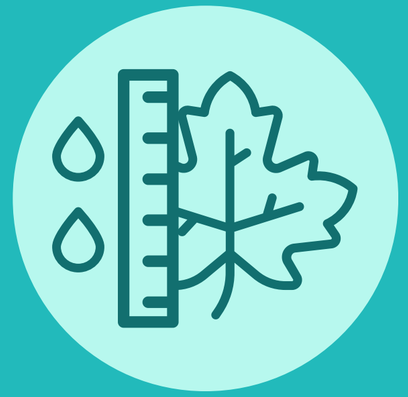
199 mm
Baseline

Summer
Jun - Aug

229 mm
2051-2080

232 mm
2021-2050

222 mm
Baseline



Fall
Sep - Nov

244 mm
2051-2080

229 mm
2021-2050

220 mm
Baseline

HEAVY RAINFALL DAYS

Days with precipitation over 10 mm and 20 mm are considered Heavy Rainfall days, and are projected to increase. Data indicated is for days over 10 mm.

27 days
2080s

25 days
2050s

22 days
Baseline

PRECIPITATION EVENTS

Precipitation events in general are projected to become more intense and extreme.

- **Frequency**

  Precipitation will fall at a faster rate (mm/h)

- **Intensity**

  Shorter storms will have an increasingly high intensity

- **Duration**

  Return periods of heavy storm will shorten (increased frequency)

GROWING SEASONS

First frost dates will be later, and last frost days will be earlier.

196 days
2080s

178 days
2050s

153 days
Annual Baseline

901 mm
2051-2080

860 mm
2021-2050

795 mm
Annual Baseline

ANNUAL MEAN PRECIPITATION

Annual precipitation is expected to increase. Winter and Spring are projected to get significantly wetter, with a slight decline in the Summer.

ANNUAL MEAN FREEZE-THAW CYCLES

There will be a decrease in freeze-thaw cycles, where the daily maximum temperature is higher than 0°C and the daily minimum temperature is less than or equal to -1°C

57
2080s

65
2050s

71
Baseline