Downscaled Changes\textsuperscript{1} in Ontario by 2050s\textsuperscript{2}

• **Average Climate Indicators**
  • **Temperature very likely to increase significantly**
    o Annual: by ~3.6 [1.3~6.9]\degree C
    o Winter: by ~5.3 [0.9~11.2]\degree C
    o Summer: by ~2.4 [-0.6~6.0] \degree C
  • **Cooling degree day (CDD)** increases by ~177 [6 ~ 459] \degree C or ~167%
  • **Frost Days**
    decrease by ~31 [-38 ~ 12] days or 19%
  • **Precipitation likely to increase** (low confidence)
    o Annual: by ~11 [-13~34]%
    o Winter: by ~16 [-23~67]%
    o Summer: by ~12 [-37~65]%

• **Extreme Climate Indicators**
  • **Temperature-related**
    o warm-days increase ~59 [10~126] days or 164%
    o warm-nights increase ~70 [23~139] nights or 194%
    o Maximum single heat wave duration increase ~16 [1~50] days or 200%
  • **Precipitation—related** (low confidence)
    o Heavy precipitation days (>10mm/day)
      increase ~4 [-6~13] days or 17%
    o Very heavy precipitation days (>20mm/day)
      increase ~2 [-3~6] days or 33%
    o Very wet days (>95 percentile)
      increase ~2 [-3~8] days or 25%

---
\textsuperscript{1} Preliminary results from MOECC funded York University project, under the IPCC AR5 RCP8.5 business as usual projections.
\textsuperscript{2} 2050s is defined as 2041-2070; all changes (except the following one in foot note 3) are calculated as the differences between the 2041-2070 and the averages of the end of last century, 1990s (1981-2010).