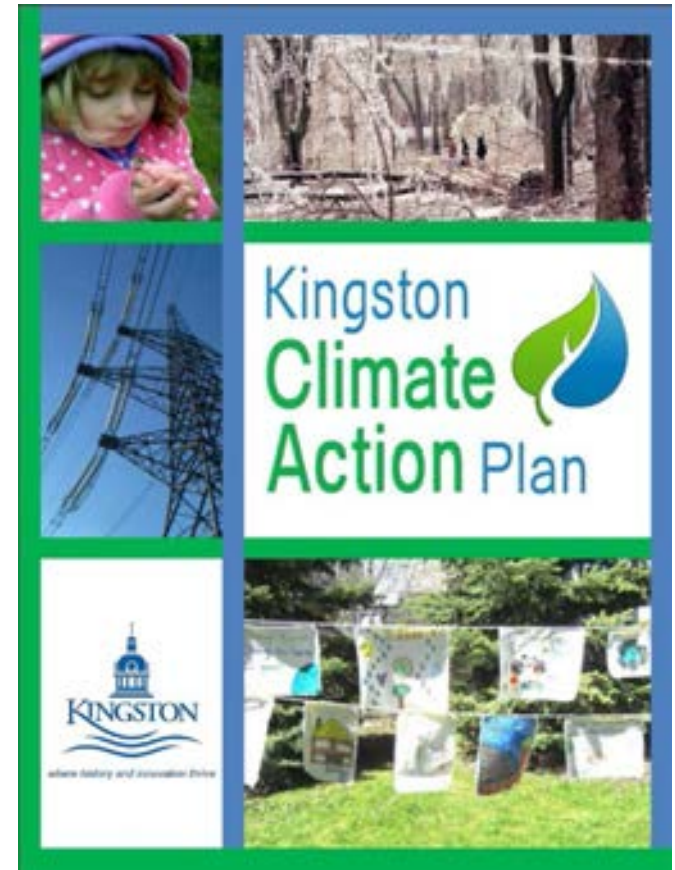


The Kingston Climate Action Plan – Understanding Kingston Climate Data

Environment &
Sustainable Initiatives
City of Kingston



What is the Kingston Climate Action Plan?

The Kingston Climate Action Plan is a community-developed set of strategies to guide community efforts to reduce our greenhouse gas emissions by 352,500 tonnes by 2020 (from base year 2011 projections). The Plan offers a high-level summary of how this goal will be met by action in these theme areas: transportation, energy, resources and natural systems, agriculture and food security and climate resilience.



Kingston Climate Data

The Kingston weather modeling, is based on ensembles of up to 40 models from the latest Intergovernmental Panel on Climate Change (IPCC) AR5 climate models (2013) reviewed for the IPCC AR5 climate change assessment. These outputs were obtained from the IPCC data repository and were adjusted and quality controlled against historical Kingston area climate data. Due to their complexity, these studies and projections of future climate extreme events have all been additionally scientifically peer-reviewed and published in international climate journals.



Where do our emissions come from?



In 2011 the Kingston community released: 1.5 million tonnes CO₂e that's 10.6 tonnes CO₂e /person.

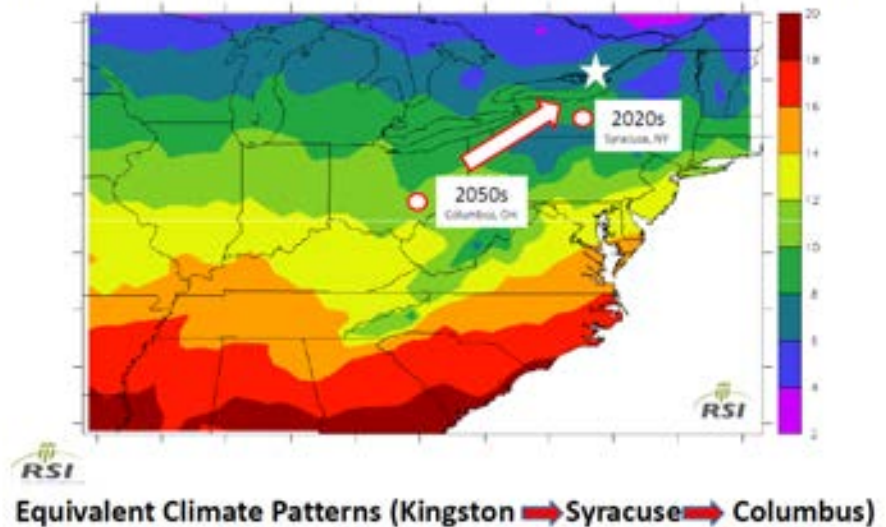


Projected Kingston Temperatures

The projected future mean annual temperature for Kingston by 2020s is that of Syracuse, New York and by 2050s Columbus, Ohio

What does this mean for our health, ecosystem and economy? Heat stress, extreme winds, intense rain, ice storms and more disease outbreaks like Lyme disease have been clearly linked to climate change.

2020s (2010-40) and 2050s (2040-70): Projected Future Mean Annual Temperatures for Kingston (IPCC AR5, RCP8.5)



Projections - Precipitation Averages

The Kingston area will have more rain:

There will be higher risks of flooding with increased precipitation averages.

Climate Variable	Current	2020s	2050s
Total Annual Precipitation (mm)	951	980 ± 28	1024 ± 39
Average winter precipitation (mm)	232	247 ± 12	266 ± 18
Average spring precipitation (mm)	219	228 ± 11	247 ± 14
Average summer precipitation (mm)	218	218 ± 11	217 ± 14
Average autumn precipitation (mm)	283	289 ± 15	299 ± 11
Climate roughly equivalent to...	Kingston area	Syracuse, NY	Columbus, OH



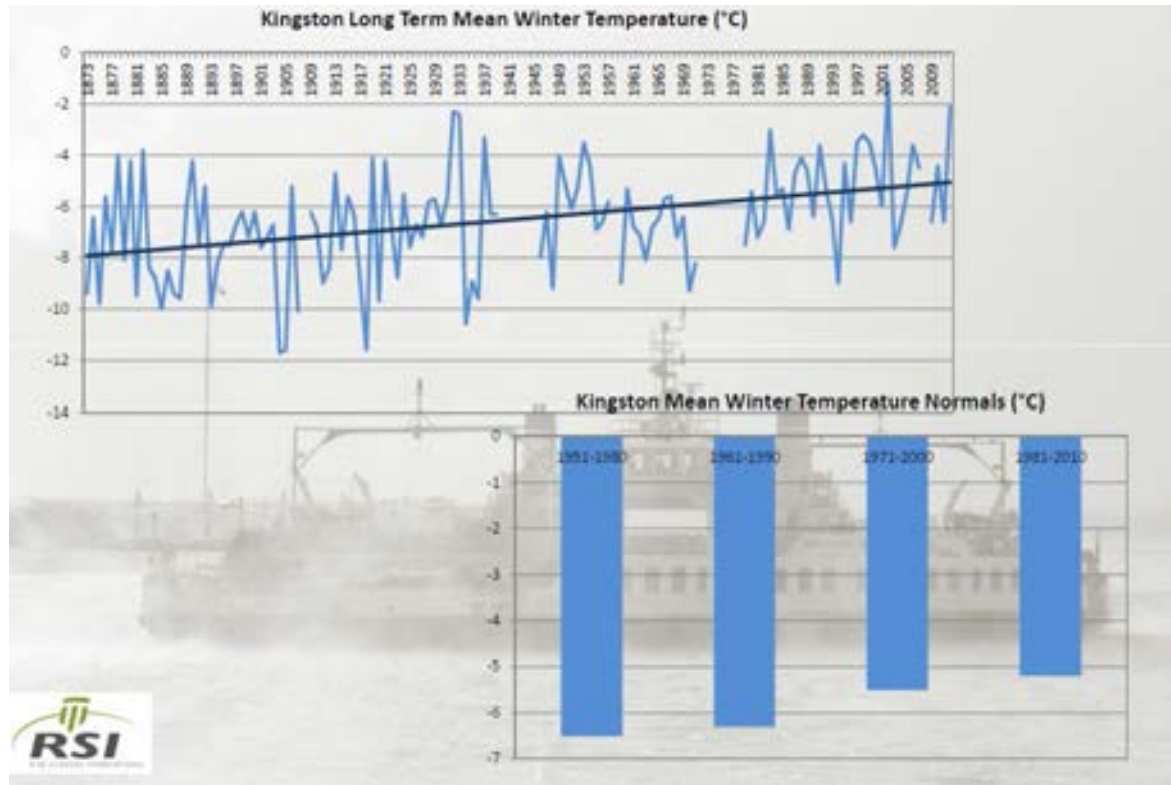
Projections - Temperature Averages

Climate Variable	Current (1981-2010)	2020s projection temperature	2050s projection temperature
Average annual temperature (°C)	7.8	9.2 ± .4	11.1 ± .7
Average winter temperature (°C)	-5.1	-3.4 ± .6	-1.2 ± .9
Average spring temperature (°C)	6.3	7.5 ± .6	9.4 ± .8
Average summer temperature (°C)	20.2	21.5 ± .4	23.4 ± .8
Average autumn temperature (°C)	9.7	11.0 ± .4	12.8 ± .7
Climate equivalent...	Kingston	Syracuse, NY	Columbus, OH

Kingston will be hotter: All seasons average temperatures are projected to be higher. Making Kingston's climate the equivalent of Columbus, Ohio by the 2050s



Historical – Winters Warming



Our winters are warming: With warmer winters there will be more days with a fluctuating temperature around 0 degrees leading to more ice storms.



Download the Kingston Climate Action Plan

<https://www.cityofkingston.ca/residents/environment-sustainability/climate-change-energy/climate-action-plan>

Questions? Email:
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