



JUN 13 2019

Mr. Robert Muir
robertmuir@rogers.com

Dear Mr. Muir:

The Office of the Prime Minister has forwarded to me your correspondence of May 31, 2018, concerning extreme weather events. I regret the delay in responding.

In the time since I received your correspondence, *Canada's Changing Climate Report* (<https://changingclimate.ca/CCCR2019/>) was published, which provides a comprehensive assessment of current knowledge about how and why Canada's climate has changed, and what future changes are projected. It concluded that some extreme events have intensified in response to warming. There have been more extreme hot days and fewer extreme cold days—a trend that is projected to continue in the future. Higher temperatures in the future will contribute to increased fire potential (fire weather). Extreme precipitation is also projected to increase in the future, although the observational record has not yet shown evidence of consistent changes in short-duration precipitation extremes across the country. The changing frequency of temperature and precipitation extremes can be expected to lead to a change in the likelihood of events such as wildfires, droughts, and floods. The emerging field of "event attribution" provides insights about how climate change may have affected the likelihood of events such as the 2013 flood in southern Alberta or the 2016 Fort McMurray wildfire. In both cases, human-caused greenhouse gas emissions may have increased the risk of such extreme events relative to their risk in a pre-industrial climate. Details about the data and analyses that led to this assessment can be found in the underlying publications assessed in this report.

Environment and Climate Change Canada and the National Research Council of Canada have been working closely with the engineering community to prepare Canada for the future. Future codes will contain guidance on how to take climate change into consideration in infrastructure design and operation in Canada.

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If you require additional information, please contact Dr. Xuebin Zhang, Senior Research Scientist at Environment and Climate Change Canada, at xuebin.zhang@canada.ca or 416-739-4713.

Please accept my best regards.

Sincerely,

A handwritten signature in blue ink, appearing to read 'C McKenna', with a stylized flourish at the end.

The Honourable Catherine McKenna, P.C., M.P.