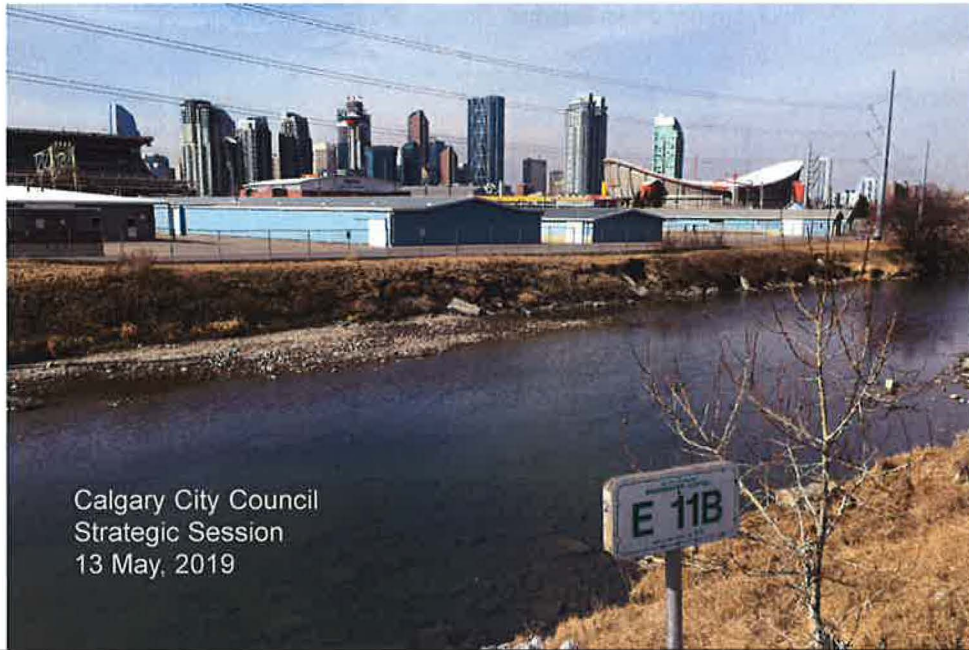
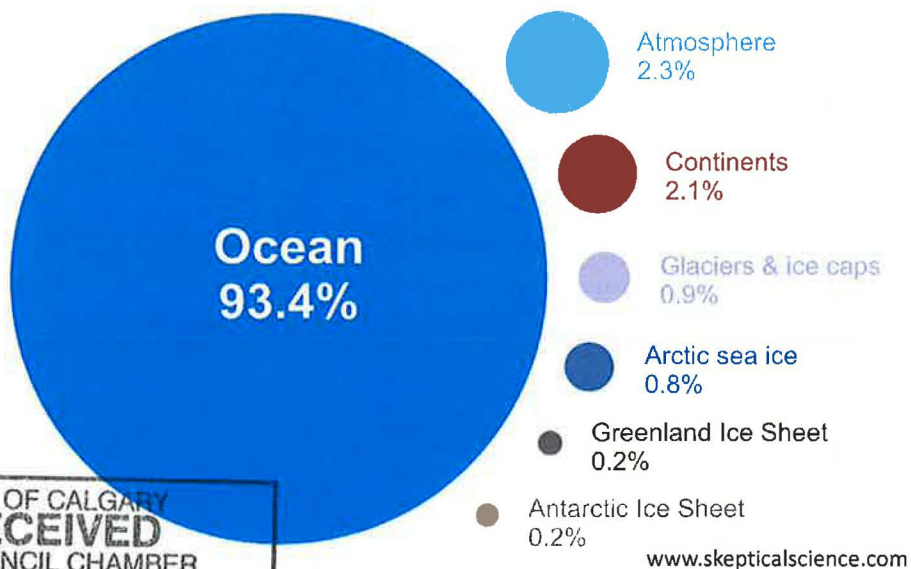


City Building and Stormwater Management



Where is global warming going?



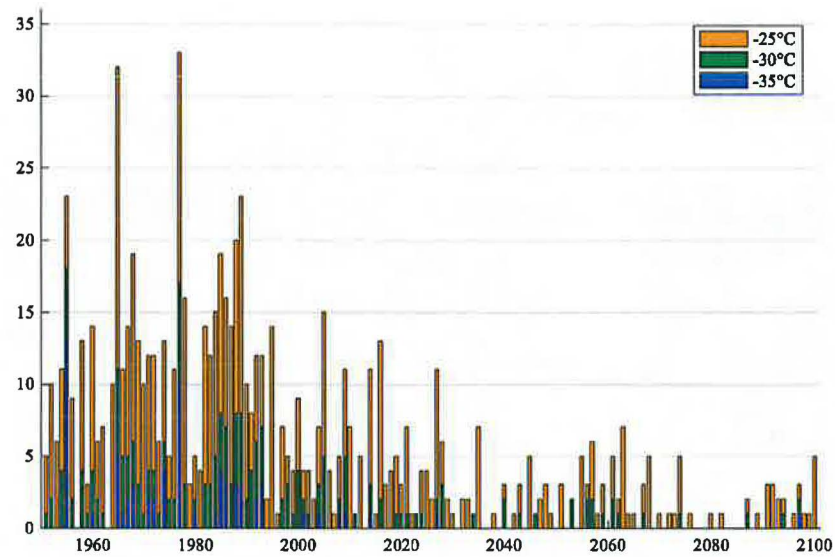
CITY OF CALGARY
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MAY 13 2019

ITEM: C2019-0648
Distribution
CITY CLERK'S DEPARTMENT

Extreme Low Temperatures, Calgary, 1950 to 2100

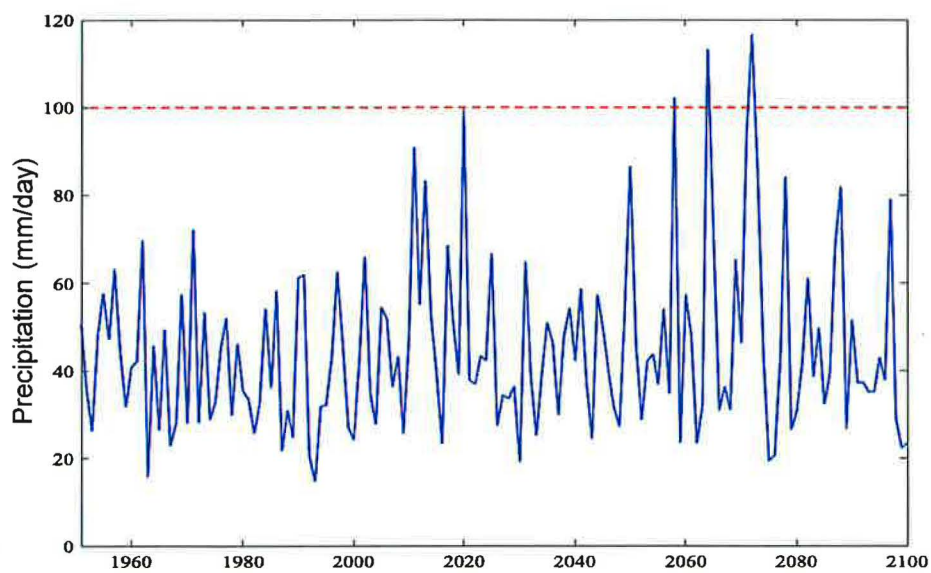
From Canadian Regional Climate Model version 5



Likelihood of Changes in Extreme Events (IPCC, 2013)

Phenomenon and direction of trend	Assessment that changes occurred (typically since 1950 unless otherwise indicated)	Assessment of a human contribution to observed changes
Warmer and/or fewer cold days and nights over most land areas	<i>Very likely</i> (2.6) <i>Very likely</i> <i>Very likely</i>	<i>Very likely</i> (10.6) <i>Likely</i> <i>Likely</i>
Warmer and/or more frequent hot days and nights over most land areas	<i>Very likely</i> (2.6) <i>Very likely</i> <i>Very likely</i>	<i>Very likely</i> (10.6) <i>Likely</i> <i>Likely (nights only)</i>
Warm spells/heat waves. Frequency and/or duration increases over most land areas	<i>Medium confidence</i> on a global scale <i>Likely</i> in large parts of Europe, Asia and Australia (2.6) <i>Medium confidence</i> in many (but not all) regions <i>Likely</i>	<i>Likely</i> ^a (10.6) Not formally assessed <i>More likely than not</i>
Heavy precipitation events. Increase in the frequency, intensity, and/or amount of heavy precipitation	<i>Likely</i> more land areas with increases than decreases ^a (2.6) <i>Likely</i> more land areas with increases than decreases <i>Likely</i> over most land areas	<i>Medium confidence</i> (7.5, 10.6) <i>Medium confidence</i> <i>More likely than not</i>
Increases in intensity and/or duration of drought	<i>Low confidence</i> on a global scale <i>Likely</i> changes in some regions ^a (2.6) <i>Medium confidence</i> in some regions <i>Likely</i> in many regions, since 1970 ^a	<i>Low confidence</i> (10.6) <i>Medium confidence</i> ^d <i>More likely than not</i>
Increases in intense tropical cyclone activity	<i>Low confidence</i> in long term (centennial) changes <i>Virtually certain</i> in North Atlantic since 1970 (2.6) <i>Low confidence</i> <i>Likely</i> in some regions, since 1970	<i>Low confidence</i> ^e (10.6) <i>Low confidence</i> <i>More likely than not</i>
Increased incidence and/or magnitude of extreme high sea level	<i>Likely</i> (since 1970) (3.7) <i>Likely</i> (late 20th century) <i>Likely</i>	<i>Likely</i> ^a (3.7) <i>Likely</i> ^f <i>More likely than not</i> ^a

Maximum Daily Precipitation (mm/day), Calgary, 1951-2100
From Canadian RCM5



Maximum Weekly Flows (m³/s) , Bow River at Calgary, 1111-2010

