



# Climate Adaptation Assessment for the City of Calgary

## Project Overview

The City of Calgary commissioned a Climate Adaptation Assessment to address climate change risks and potential adaptation actions. There is consensus within the scientific community in Canada and internationally that the earth's atmosphere is changing as a result of greenhouse gas emissions and that these have led to an overall warmer global climate and shifts in local weather patterns. The Assessment considered how this will impact the City of Calgary and how they should adapt.

## What innovations and future trend(s) did we consider?

- Climate change leading to shifts in local weather patterns, with increasing extremes and overall warming.
- Increasing whole life value of resources demanding identification and assessment of vulnerable ecosystems, infrastructure and systems.

## How were they considered?

We were part of a consulting team that developed scientifically robust research for the City on climate change. This initially involved an assessment of historical and future trends in Calgary's climate to understand the potential for on-the-ground impacts and organizational vulnerabilities.

Once initial climate change effects were understood, research identified current and potential related impacts on various City assets, lines of service and business units, environmental features and processes, and the community.

A short list of climate change impact scenarios were developed and assigned risk scores based on likelihood of occurrence and consequence factors related to the City's service delivery, community, health and safety.

Risk score results led to industry leading adaptation action research and recommendations specifically tailored for the City.

## How was our approach better?

Our team provided a hybrid top-down (climate scenario modelling) and bottom-up (stakeholder engagement) approach to prioritize climate change adaptation actions based on quantified impacts. A science-based approach with substantial climate modelling and risk analysis identified key risks from climate change to the City – these risks are clearly linked to identified adaptation actions. This approach supports buy-in from across the City's organization, as well as providing a demonstrated need to adapt and the potential costs of not adapting.

## The outcome

The research conducted through this project is being used as an input to the City's climate change resiliency and adaptation planning process. The project outcomes are a critical platform for the City to advance climate adaptation.

## For more information:

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