

Climate Change and Infrastructure Risks

in Alberta

*What might the future
look like?*



More frequent freeze-thaw cycles due to variable winter weather will degrade infrastructure.



Increased risk of infrastructure failure during more extreme weather events.



Increased damage to infrastructure during more extreme weather events.



Changes in needs and costs for energy use and heating.

A lot of Alberta's infrastructure was designed and standardized for our current and historical climate, rather than our future climate. As our climate changes, our infrastructure is at risk of failure because it may be unable to withstand unprecedented and extreme weather events.

Significant investment to proactively upgrade infrastructure will be necessary in improving our resilience to climate change overall.

What might infrastructure investment look like?



Assess the resilience of key infrastructure components and determine areas where upgrades may be necessary.



Examples: Town planners should take inventory of essential municipal infrastructure, categorize them for certain needs and determine their reliability.



Adapt infrastructure for future hazards in order to protect infrastructure wherever possible.



Examples: Assess where power lines may be vulnerable to falling branches during windstorms, and prune trees where necessary.



Adjust infrastructure requirements and standards to reflect climate projections for your region.



Examples: Upgrade bridges, dams and flood retention devices for heightened flood risks.



Protect natural assets and integrate them into new community designs.



Examples: Preserve wetlands and green zones whenever possible, and utilize them as a focal point of urban design projects.

