

EXTREME COLD AND WINTER STORMS



CLIMATE CHANGE AND WINTER - PRAIRIE TRENDS

More freeze-thaw cycles
More intense storms and blizzards
More freezing rain and ice storms
Greater temperature variability

SECONDARY HAZARDS

There are numerous secondary hazards associated with ice storms, blizzards, and extreme cold to be aware of and prepared for as the climate changes.

Power outage - heavy ice or snow loads on power lines and unstable trees can lead to lasting and widespread power outages

Flooding - large volumes of snow may turn into unmanageable volumes of meltwater

Carbon monoxide poisoning - heating homes during power outages and extremely cold conditions with alternative sources increase the risk of misuse and poisoning

Fire - increased fireplace usage during power outages or extremely cold conditions increases the risk of home fires

Transportation disruptions - icy and/or snow-covered streets increase accidents and/or make routes impassable

Business and agricultural losses - storms can interrupt business operations and deter customers, and inconsistent seasonal patterns (i.e., early frosts, snowfalls) can damage crops or lower crop quality year to year

STORMS AND HAZARDS

Ice Storms



An ice storm occurs when large amounts of freezing rain continue for several hours. These storms can also include wind, ice fog, and cold temperatures.

Freezing rain damage from an ice storm can be severe; heavy ice loads strain and damage power lines, trees, sidewalks and streets. Just a small amount of freezing rain makes roads extremely slippery for drivers, and ice build-up makes sidewalks and pathways dangerous for falls and slips. The risks of an ice storm can persist for hours or even days afterwards.

Blizzards



A blizzard presents numerous risks as heavy snowfalls combine with high winds to create poor visibility and slippery roads. Blowing snow and accompanying cold conditions can have serious impacts on driver safety, municipal and private utilities, and homes and buildings.

Extreme Cold



In Alberta, an extreme cold warning is issued when the air temperature, or wind chill index is expected to go down to minus 40°C or colder.

Temperatures this low are more likely from December through to February. Extreme cold threatens people and animals health, as well as the structural integrity of buildings and public infrastructure.