

# CLIMATE RESILIENT HOME SUMMARY GUIDE

Future-proofing your home  
for a changing climate



**CHANGE  
FOR  
CLIMATE**

Edmonton

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This is a summary document for the Climate Resilient Home Guide. The information contained in this document is condensed from the full Guide. The examples in this document are intended as high-level examples only and are not comprehensive information on how to make your home climate resilient. For complete and detailed information on making your home more climate resilient, please download the full Climate Resilient Home Guide and visit the [climateresilienthome.ca](https://climateresilienthome.ca) interactive website.

## What is the Climate Resilient Home Guide?

Alberta is a hot spot for extreme weather. Lightning, hailstorms, tornadoes, strong wind, floods and fires – they all happen here, and they happen more often and more severely than anywhere else in Canada.

The Climate Resilient Home Guide was developed to help Edmontonians understand what climate hazards to expect and improvements that can be made to enhance the resilience of their homes. Many of the impacts of climate change can be reduced through upgrading and enhanced maintenance of the materials and components of our homes and properties.

# CLIMATE HAZARDS AND THEIR POTENTIAL IMPACT ON YOUR HOME

## EXTREME HEAT

An extreme heat event is generally described as hot weather conditions that have the potential to result in an unacceptable level of health effects, or negative impacts to the natural environment and/or built infrastructure. Days that reach or exceed 29°C are typically referred to as a “high heat day”, and a “heat wave” is typically defined as more than three days above 29°C where nighttime temperatures remain above 14°C.

Extreme heat can make your indoor living environment unbearable. This can lead to lethargy, reduced productivity, and even heat-related illnesses and fatalities in extreme cases. Extreme heat can also reduce air quality, amplifying concentrations of ground-level ozone (smog) which is associated with adverse health effects, including asthma attacks.

High temperatures, and large variations in temperature, can deform building materials (e.g., roofing and siding) causing buckling, bowing, cracking, and sometimes breakage.

Your home may be more vulnerable to extreme heat if you live close to the downtown core, or in a more densely populated area with minimal vegetation. Older, single-pane windows that do not open, poorly insulated attics and walls, and air leaks in windows and doors are some of the many factors that can make your home hotter.

To reduce the impacts to your home from extreme heat, consider roofing styles that reduce heat and ensure your walls and attic are well-insulated. Triple-pane windows (including some that open) will also reduce solar gain. Simply put, solar heat gain refers to the heat absorbed from sunlight, which can significantly increase indoor temperatures.

## WILDFIRES

Wildfires are a natural part of wildland ecosystems, but living where wildfires can occur puts your home at risk. Recent wildfires in Alberta such as the 2024 Jasper wildfire (est. \$880+ million in damages), 2016 wildfires in Fort McMurray (\$4 billion) are a testament to the damage they can cause.

In an urban setting, wildfires can grow by burning trees, leaves, plants, dried grasses, and other fuels, and spreading to structures, including your home. Sparks and embers from a wildfire as far as two kilometres away from your home can ignite materials and cause severe damage to your home. Edmonton has experienced multiple major grass fires, such as those along Jasper Avenue in 2021 and the Yellowhead Trail in 2019 and 2020.

If you live in close proximity to dense, continuous forests or unmanaged grasslands and have combustible materials and/or trees in close proximity to your home or wooden shake roofing materials, your home could be more at risk. Other factors such as living higher up on slopes or hills, and exterior siding made from wood or vinyl contribute to your fire risk.

To reduce the impacts to your home of wildfires, install asphalt shingles, metal or clay tile roofing and cement board, stucco, brick or metal for siding. You can also install fire resistant windows and doors.

It is important to apply FireSmart rules for your property such as making the area within 1.5 metres of your home a non-combustive zone and the area within 1.5 to 10 metres a fire-resistant zone.

## HEAVY RAIN AND FLOODING

In Edmonton, there are different types and causes of flooding such as those that occur during intense summer storms, prolonged rainfall, rain-on-snow, ice jamming, river flooding or combinations of these.

With climate change, the amount and intensity of extreme precipitation events is increasing. For Edmonton, in the future, we can expect more heavy rainfall and urban flooding events where the ground is often unable to absorb heavy rain like it might with a gentle rainfall.

Your home may be more vulnerable to flooding if you live in a floodplain area (check the Province of Alberta's [flood map](#)), low-lying area or in close proximity to a natural water body. Check your home for unsealed cracks in the foundation or basement floor. Ensure the grading of your lot or driveway slopes away from the house, and that downspouts drain away from your home.

The impact of flooding can be reduced by choosing flood-damage-resistant building materials for walls, ceiling, insulation, flooring, and doors, installing sewer back up valves and using permeable materials so driveways and walkways are better at absorbing water.

## DAMAGING STORMS

Damaging storms are short-duration, high-intensity convective storms which often include high wind and hail. These geographically, relatively small storms, can produce significant damages with high costs. According to climate projections, the frequency and intensity of these events are likely to increase in the future, and there is increasing potential for them to occur throughout more of the year.

### Hail

Hail is one of many hazards associated with damaging storms. Hail is a form of precipitation that is made up of ice and snow. Hailstones can range from pea size to golf ball size and larger. There has been an increasing trend in hail in Alberta over the past four decades. Additionally, the increasing duration of the hail, or convective storm season, will likely contribute to Edmonton experiencing more hail events.

On average, Edmonton gets about four hailstorms per year. Most recently, in August 2019, a hailstorm that struck Edmonton damaged house siding, windows, and vehicles, costing an estimated \$90 million in insured losses. The hailstorm that struck Calgary in August 2024 is estimated to have caused \$2.8 billion in damages.

Hail can cause significant damage to your home's roof, exterior walls, doors, windows, and outdoor structures like porches and decks. Items like skylights, flat roofs, aluminum or vinyl siding and older, low-quality roofing material and unprotected vehicles are more likely to be damaged during a hailstorm.

### High Wind

High winds are typically defined as gusts 90 km/h or greater. In Edmonton, the strongest winds are usually caused by severe thunderstorms, intense low-pressure centres and cold fronts. High wind events can last from minutes to hours. For example, on January 19, 2020, the first ever snow squall warning was issued for Edmonton. The storm caused major damage to homes, businesses, and trees with intense wind gusts reaching between 87 to 107 km/h.

High winds can damage a wide variety of infrastructure including homes, buildings, traffic signals, streetlights and signs. Strong winds can also turn tree branches and garden furniture into projectiles that can damage roofs, exterior walls, windows and doors.

To protect your home from high winds, check your roofing materials. Look for signs of damage. Were they installed without underlayment? Are your soffits, fascia and gutters old and/or showing signs of damage? Do you have items stored outdoors that are not anchored down like trampolines and patio furniture?

You can reduce the impact of high winds on your home by installing wind resistant siding materials and impact resistant doors and windows. Planting coniferous (evergreen) trees in a row on the prevailing wind side of your house will reduce wind exposure and securely anchoring outdoor furniture and outdoor equipment prevents them from becoming damaging projectiles.



## WINTER STORMS

Winter storms can be defined as any precipitation event with potential to cause damage that occurs near or below 0°C. This can include snowfall, freezing rain, ice storms, and rain-on-snow events. Winter storms can happen in the spring, fall, or winter. On November 8, 2019, a major winter storm on a Friday evening started as rain and then transitioned to snow resulting in over 365 vehicle collisions.

Snow and ice storms can also damage infrastructure and cause power failures (e.g., downing of overhead power lines), and result in more injuries due to increased traffic accidents or slips and falls. Ice dams (ridges of ice that develop at the edge of your roof or around drains) can prevent snow or water from melting off your roof.

Your home may be vulnerable to winter storm damage if it has a flat or almost flat roof, a complex roof design with obstructions where snow and ice can collect, skylights, vegetation that overhangs your roof or if your attic has poor insulation.

To reduce impacts to your home from winter storms, you can choose a hip roof structure, install an appropriate moisture or ice-and-water shield over the entire roof surface to protect against water and ice penetration, and improve attic insulation and venting to reduce the risk of ice damming.



## DROUGHT

Drought is a lack of adequate precipitation over an extended period of time, resulting in a water shortage. Climate projections of increased summer temperatures and decreased summer precipitation tell us drought conditions may become more common and widespread.

The consequences of a multi-year drought are far reaching. In addition to the impact on local agriculture, droughts affect the health of plants, wildlife, wetlands, forests, parks, open spaces, recreational facilities and private yards. Drying out of forests and grasslands increases the risk of wildfires, which can impact both local air and water quality.

Your home may be more vulnerable to the impacts of drought if it has trees, shrubs and flowerbeds that require large amounts of water, a large lawned area, uses large quantities of water, or if there are cracks visible in your interior and exterior walls, around the corners of walls and windows.

To reduce the impacts to your home and property during drought conditions, you can plant drought tolerant trees, shrubs and grasses and install rain barrels or rainwater cisterns. You can conserve water by watering early, using a soaker hose, drip irrigation or watering by hand, keeping your lawn 2 or 3 inches high, and adding mulch around trees and shrubs to retain moisture.

# CLIMATE RESILIENCE MEASURES FOR HOME RENOVATIONS

Here is some basic information before getting started with home resilience efforts. Your home requires ongoing care and maintenance. For detailed information, please refer to the full [Climate Resilient Home Guide](#).

Talk to your insurance provider to find out if you are covered for damage from climate hazards, such as wildfire, flooding, hail, wind, freezing rain and heavy snow. Does that coverage include other structures and belongings, or just the house itself? What is your policy deductible? Are there separate deductibles for different parts of your home coverage? It is also important to know if you have coverage for living expenses if the damage is so severe that you cannot stay in your home. Some insurance policies may also provide discounts or other incentives for resilient home measures.

Seek advice from building professionals. Building inspectors may be able to offer important insights into your home's capacity to withstand climate hazards. Plumbers can help you understand your risk for flooding and which basement flood protection measures will be most effective for you. A professional energy advisor can provide detailed information on protecting your home from extreme heat, and also reducing your energy bills.

It is important to know which permits are required for new construction, renovation or additions. The City of Edmonton website has detailed information about [required permits and bylaw information](#).

Whether you are landscaping, building a new fence or deck, or planting a garden, before you disturb the ground, contact Utility Safety Partners to request that the buried utilities on your property be located and marked. You can [Click Before You Dig](#), or call 1-800-242-3447.

## ROOF

A roof includes the structure, slope, attic, and different types of roofing materials, including membranes underneath the roofing. The roof also includes items that are attached to the roof such as gutters, solar panels, or a chimney. The most important aspects of a climate resilient roofing system are a durable sheathing material that is securely fastened to the roof structure, roofing underlayment, and installation of a climate resilient roofing material.

Shingles are by far the most common roofing material, and standard, inorganic 3-tab asphalt shingles are the least expensive. If you are installing asphalt shingles, consider upgrading to either laminated architectural shingles or impact resistant shingles. Other roofing options (rubber, aluminum, steel roofs, clay, concrete, or slate) are very resilient and long-lasting but can be cost prohibitive for most.

## Roof Sheathing

Roof sheathing is the panel of material (usually OSB or plywood) fastened to the structure to provide a surface for water protecting membranes and roofing material such as shingles. In general, choosing a thicker roof sheathing material (11.1 mm or 7/16" in lieu of 3/8" sheathing) with longer nails (e.g., 2.5" rather than 2") that are spaced closer together along both the edges of the sheathing panel and the interior supports (150 mm, rather than 300 mm), reduces the risk of damage associated with sheathing failure.

## Roof Underlayment

Roof underlayment is a membrane that goes over the roof sheathing and is required by Building Code on the eaves of your roof to prevent ice damming and water backup into the attic. For better protection from heavy rainfall and winter storms, consider using two layers of underlayment that are cemented together or an ice-and-water shield underlayment. Make sure underlayment is installed well in roof valleys, and around your chimney and other roof obstructions (skylights, dormers, etc.) where snow and ice can collect during the winter.

## Eavestroughs and Downspouts

Eavestroughs are the system of gutters attached to the eaves of your roof which collect rainwater that flows off your roof. Downspouts direct rainwater from eavestroughs down from your roof to the ground and away from the house. Eavestroughs and downspouts help protect your home from flooding and water damage and can help keep your building components (including the structure) dry.

## EXTERIOR WALLS AND SIDING

The exterior walls of your house start at the foundation and extend to the base of your roof. Your exterior wall, and notably your siding (or cladding) material, play a major role in shielding your home from extreme weather and climate hazards, namely wildfires and damaging storms with hail, high winds and heavy rain. The most climate resilient wall system comprises a correctly installed, durable and securely fastened sheathing material, a wall air barrier, and a climate resilient siding material.

## Siding Materials

Vinyl siding is the most common and least expensive cladding material. However, if you want to improve the resilience of your home, you should consider upgrading to a more resilient and durable material. Aluminum, wood composite, fibre cement and cementitious stucco are all more robust options.

## Wall Sheathing

Wall sheathing is the panel of material (usually OSB or plywood) that is fastened to the structure to provide a surface for the weather protecting membrane and siding material. Walls that are sheathed completely and properly will provide greater resilience to multiple climate hazards. Wall sheathing should not be tightly sealed as the glue in a panel material can create a double vapour barrier trapping moisture inside of the wall cavity. Gaps between the panels are essential to permit breathability and allow any trapped moisture to dry out.

## Wall Air Barrier

A wall air barrier is the material (typically felt paper, or polyethylene or polypropylene wrap) that goes on the outside of your wall sheathing, before putting siding material on. Air barriers are intended to stop air leakage through differences in air pressure between the inside and outside of your home and to allow vapour to permeate through.

## INSULATION

Thermal insulation is material designed to prevent heat transfer from one area to another. Typically thermal insulation incorporates materials that consist of millions of tiny pockets of air. Air is a very good insulator, and trapped pockets of air are what give most types of insulation their high thermal resistance or R-value. Properly insulating your home reduces both heating and cooling costs and improves comfort.

## Exterior Wall Insulation

When replacing your siding, installing an additional layer of exterior wall insulation is an option for improving the thermal comfort of your home, and reducing impacts of extreme heat. Exterior insulation is usually mineral stone wool insulation or extruded polystyrene (XPS) insulation. Mineral wool is more effective for fire resistance, and XPS is water resistant, although mineral wool will regain its insulation value once dried out.

## Interior Wall Insulation

Interior wall insulation (between the studs in the wall) is the typical way most older homes are insulated. This is one of the main building components for maintaining occupant comfort. There are a variety of insulation materials, each with different properties. Mineral wool insulation is the most fire resistant, and spray foam insulation is the most water resistant. Fibreglass batt or cellulose insulation is less ideal because it can clump together or slump over time, which permanently reduces the insulation value unless replaced.

## Roof/Attic Insulation

Because hot air rises to escape, ensuring roof insulation is effective is one of the most important factors in protecting a home from extreme cold, extreme heat and heavy snowfall. For drywall ceilings that are nailed directly to the joists, cellulose insulation can be installed in the attic. Additional fibreglass batt insulation can be added on top to augment the insulative value. The attic of your roof must be well vented to allow for airflow to dry out any condensation, leakage or other moisture build-up. A badly vented attic can cause major moisture and mould problems as well as a loss in the effectiveness of your insulation.



## WINDOWS AND DOORS

Windows and doors are an integral part of your home's envelope. Doors provide access to the inside of your home and to rooms within your home and can be constructed from a range of materials. Doors and windows play an important role in shielding the interior of your home from the elements, as well as contributing to its overall appearance. They prevent water ingress, provide fresh air during warmer months, help slow down heat loss and reduce solar heat gain, and manage noise. Windows, doors and skylights account for up to 35 percent of energy loss in your home.

### Window Types

New, energy efficient windows will significantly cut down on heat loss and solar heat gain. The most efficient Energy Star® certified windows are about 40 percent more efficient than standard windows.

Windows are available in a wide variety of materials, including vinyl, wood, fibreglass, aluminum, steel and wood. Windows made from metal are less energy efficient as they conduct heat more readily. Vinyl and fibreglass frames both have attractive insulating properties—they can be formed with air pockets or interior chambers that can be foam filled to increase efficiency.

### Door and Window Frame Components

Door and window frames can be constructed of steel, aluminum, wood or wood composites, plastics (e.g., PVC), or composites like fibreglass. Properly constructed frames of any of these materials are expected to last beyond 25 years. Important considerations to ensure the longevity of window and door components are correct selection of performance specifications and proper installation.

### Window Films

Safety film is a very cost-effective solution for window (and door) glass that can help mitigate damage against high winds, flying debris and hail. These films can be applied to your glass surfaces to make them impact resistant and shatterproof. Safety film can also help protect against UV rays and solar heat gain.

## Window Coverings and Shading Technologies

There are a wide variety of shades, screens and blinds on the market to help control solar heat gain in your home. Cellular or honeycomb shades, which trap air within their core, have excellent thermal properties and provide the added benefit of reducing heat loss in winter months. Roller shades (fabric) or roll shutters (aluminum or plastic slats) help reduce solar heat gain. The latter provide additional protection against other climate hazards. You can also install either fixed or retractable awnings to manage solar heat gain. Awnings can also direct water away from your home.

## Impact and Fire-rated Doors

Entry doors and your garage door should be impact doors and fire-rated to protect against wildfire, high winds and hail. These doors are made of materials that have been tested and approved to withstand severe weather. Strengthened door frames and reinforced hinges are used to keep the door in place. Garage doors in particular are often the weakest point on a home in severe wind. For severe wind protection, they can be reinforced and laterally braced on either side, especially if there is living space above.

## Weatherproofing and Sealing

Making sure your home is well-sealed is an important first step to creating an energy-efficient home. It will make your home cooler in summer and warmer in winter and reduce your energy bills. Gaps between and around windows and doors, where pipes penetrate walls, and between walls and the roof can allow hot air in during the summer and cold air in during the winter. Drafts are easy to detect, for example, can you see daylight under doors or around window frames, do your windows rattle in their frames during storms, can you feel air moving against your hand, or do your blinds or curtains move when it is windy?

## **LANDSCAPING AND YARD**

### Lot Grading

Ensuring your lot drains away from your house is the most effective means of protecting your home from flooding. In many older homes, the “backfill zone”— or the part of your yard that directly abuts your building— may be vulnerable to settling, causing low spots directly beside your building. Make sure this area is well graded away from your home.

### Climate Resilient Planting

With a little research and a simple layout, it is possible to produce a landscape that will help cool your home in summer and tame the winter winds. In general, this means planting deciduous trees on the south, east and west exposures of your house, as they provide shade in the summer and shed leaves in the winter to let sunlight in. Coniferous (evergreen) trees can be planted in a row on the prevailing wind side of your house (south-west), or on the side where there is the least amount of sunshine, to protect against high winds.



## DRAINAGE AND WATER MANAGEMENT

### Sump Pumps

Some homes have a collection basin, or pit, called a “sump” in the lowest part of a basement floor. The purpose of a sump pump is to discharge water from the foundation drainage system (or weeping tiles) when it is not possible to drain your foundation drainage system directly into a municipal sewer.

### Sewer Back-up Valve

In the event of a flood, the municipal sewer system will be at capacity which could cause a reversal of the flow of water and sewage known as a “sewer backup”. A sewer backup valve (or backwater valve) can be installed in your main sewer line or branch lines of other below grade fixtures. The valve closes when the main sewage line is full and can help stop sewage and floodwater from backing up into your home.

### Rain Barrels and Cisterns

Rain barrels and cisterns (a larger version of a barrel) collect rainwater from a home's downspout or other run-off, which can then be used to water gardens. Choosing to use rainwater for landscaping and gardening reduces demands on potable water supplies. Rain barrels should be emptied before winter to avoid cracking and damage to the barrel or waterspout.

### Permeable Pavement

Permeable pavement is a type of hard surfacing that allows rainfall to percolate around or through the material. Conventional permeable pavements include porous asphalt pavements, pervious concrete pavements, pervious cast concrete pavement, and permeable interlocking concrete pavements.



## HEATING, VENTILATION AND COOLING

Heating, ventilation and air conditioning (HVAC) systems move air between indoor and outdoor areas, and heat and cool your home. They also filter and clean indoor air to keep you healthy and maintain humidity at comfortable levels. The most visible components of your home HVAC system include the furnace, vents and thermostat.

### Air Conditioning

There are three main types of air conditioning to choose from: central (which generates cool air from a central unit and distributes that air to the entire house through the ducts), window units (which mainly cool single rooms) and split (or ductless) air conditioning units.

A heat pump can also provide year-round climate control for your home. An air-source heat pump (the most common type of heat pump in Canada) absorbs heat from the outdoor air in winter and pushes heat outdoors in summer. Ground-source (geoexchange) heat pumps, which draw heat to and from the ground or ground water, are becoming more widely used.

# RESILIENCE OPPORTUNITIES FOR NEW CONSTRUCTION

Here are some construction tips to improve the resilience of new homes. For detailed information, please refer to the full Climate Resilient Home Guide.

## EXTREME HEAT

To protect your home from extreme heat, provide shading overhangs for all south-facing windows, as well as for east and west facing windows. Operable windows should be placed on opposite sides of the building to allow for natural ventilation. Glazing on windows can reduce solar heat gain. A compact building shape and open floor plan can improve energy efficiency and ventilation.

Planting deciduous trees on the south, west and east side of the house provides shading. Solar reflective landscaping and hardscaping materials can be light-coloured, designed to reflect sunlight or provide vegetation cover.

## WILDFIRE

Some of the many things you can do to protect new homes from wildfire include choosing fire resistant roof and exterior wall materials. Install non-combustible material for all vents and fit them with a device to prevent sparks and embers from entering your attic. Soffits and fascia should be fitted on your eaves to reduce the risk of embers and heat reaching the wooden rafters of your home. All doors, including garage doors, should be fire rated and have a good seal.

## HEAVY RAIN AND FLOODING

To protect from heavy rain and flooding, the minimum elevation of the lot, at the house, should be 450 mm above highest elevation at the property line. Install weeping tile around the perimeter of the foundation wall footing and cover it with granular material prior to backfilling. Backfill around foundation walls should be capped with an impermeable surface and have a minimum five percent slope away from your house.

Utility penetrations should be located well above ground level to prevent water seepage into the building and backflow prevention valve(s) on sewer lines should be installed.

## DAMAGING STORMS

### High Wind

Simple roof designs, such as hip roofs, are less susceptible than more complex and gable end roofs to wind damage. The steeper the slope of a roof, the more indirect the angle of impact, and the less likely for high wind damage. When selecting roofing materials, choose wind resistant materials. Use durable vents rated for high winds.

### Hail

Steeper slope roofs, with more indirect angle of impact, are less likely to be damaged by hail. Select roofing materials that are more hail resistant and choose a resilient siding material such as steel, fibre cement, cementitious stucco, or brick. It is also important to choose impact resistant skylights, windows and doors, and to incorporate vehicle covers in your design—either a garage, carport or other covered parking space.

## WINTER STORMS

During winter storms simple roof designs, such as a hip roof, are less susceptible to damage. Steep roofs are more resilient to heavy snow-fall damage such as roof collapse, ice damming and roof leaks. It is important to choose water and moisture resistant roof and exterior wall materials including roof underlayment installed over the entire roof deck. Proper attic insulation can prevent snowmelt, ice damming and roof damage.

# HOME AND PROPERTY MAINTENANCE AND RESILIENCE TIPS

Your home requires ongoing care and maintenance. Here are some tips to maintain your home and make it climate resilient. For detailed information, please refer to the full [Climate Resilient Home Guide](#).



## EMERGENCY PREPAREDNESS

Emergencies can happen without warning. Make sure you have an [emergency preparedness kit](#) that includes an array of items such as: a radio, batteries, flashlight, first aid kit, non-perishable food and drinking water. Ensure you are signed up to receive [emergency alerts and notifications](#) and consider having a back-up battery power source.



## SPRING MAINTENANCE CHECKS

In the spring, seal cracks in foundation walls and basement floors to help reduce basement flooding in your home. Ensure storm grates and drains near your home are clear of debris and blockage. Clean your roof, eavestroughs and downspouts by removing needles and trim any trees or vegetation overhanging your roof.



## ANNUAL MAINTENANCE CHECKS

You should inspect the exterior of your home annually, and after a wind, hail or snowstorm. Look for broken or dead tree branches that may pose a safety hazard; broken, cracked or torn roofing materials that could cause water penetration or blow off in the next windstorm; and missing shingles or exposed roof deck that could allow water ingress.

Check for signs of moisture and water pooling in your basement/crawl space, on your roof, and in your yard including water pooling near foundation walls, window wells and stairwells. Icicles hanging from eavestroughs in the winter are an indication of poor insulation in your attic or that your gutters are blocked with debris.

Ensure vents are not blocked by debris. Check dryer vents and interior flexible ducts for lint build-up which is a fire hazard.



## SUMMER MAINTENANCE CHECKS

If your home is located near a forest or unmanaged grasslands, check the [FireSmart Guide to Landscaping](#) for tips on making your yard more resistant to wildfire. Fit vents with a screen or filter to prevent wildfire sparks and embers from entering your attic.

Conserve water and protect your home against drought conditions by watering early in the morning, using a soaker hose, drip irrigation or watering by hand. Keep your lawn short (2-3 inches high) and add mulch around trees and shrubs to retain moisture. Use a rain barrel to collect water for watering your plants and garden.



## FALL MAINTENANCE CHECK

Fall is the time to prepare your home for winter. If you have a wood burning fireplace, ensure your chimney is clean, and has a spark arrestor. Install a smart thermostat, and replace incandescent lights below your attic with LED lights to prevent snow from melting on the roof which can lead to issues such as ice damming.

Clean and properly disconnect your rain barrel to prevent it from leaking or freezing and cracking and turn off outdoor water supplies.



## WINTER MAINTENANCE CHECK

In the winter, if you notice ice damming on your roof, you can treat it with a chemical de-icer or by installing de-icing cables on the roof and gutters. Very large snowfalls may put your roof at risk of structural failure or collapse. Use a snow rake to remove excess snow from the roof. In the case of a power outage, if water is no longer coming into your home, turn off the main water valve coming into your home and open all taps to clear the remaining water in the pipes to avoid pipes freezing.

## ADDITIONAL RESOURCES

- [Climate Resilient Home](#) interactive website; explore actions you can take to protect your home from climate-related impacts.
- [Edmonton's Climate Change Almanac](#) provides information about projected climate changes in Edmonton.
- [Tiny Explanation videos](#) present climate changes we can expect, in a light-hearted way.
- [Climate Change 101](#), part of [edmonton.ca/lunchboxseries](#) videos.
- Seasonal Change posters capture changes according to the seasons, and can be found at: [edmonton.ca/climateresilience](#)
- [Climate Resilient Edmonton: Adaptation Strategy and Action Plan](#) identifies key climate hazards for the City.

*This Guide has been adapted from the Climate Ready Home Guide for Calgarians*

## CREDIT

**Thank you to the City of Calgary, All One Sky Foundation, and the Institute for Catastrophic Loss Reduction for sharing this guide with the City of Edmonton to adapt it for use in Edmonton.**

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