

Home Fire Prevention

Presented by Regional Emergency Services
Fire Prevention Branch



OVERVIEW

- Fire Prevention Branch Services
- Construction Site Safety
- FireSmart at Home

FIRE PREVENTION

Branch Services

- Public Education
- Fire Inspections
- Fire Investigations
- Plans Review



CONSTRUCTION SITE SAFETY

- Fire safety plan
- Fire department access
 - Blocking fire hydrants
 - Emergency access
- Storage and control of flammable liquids
- Storage of construction materials and reduction of fuel loads



CONSTRUCTION SITE SAFETY

Blocked Fire Hydrants



CONSTRUCTION SITE SAFETY

Blocked Roads & Emergency Access





Begins_{at}
Home



FIRE PREVENTION

FireSmart – Home Ignition Zone

- Wildfire home ignitions
 - Ember spotting versus flame front exposure
- Impact of combustible fuel reduction



FIRE PREVENTION

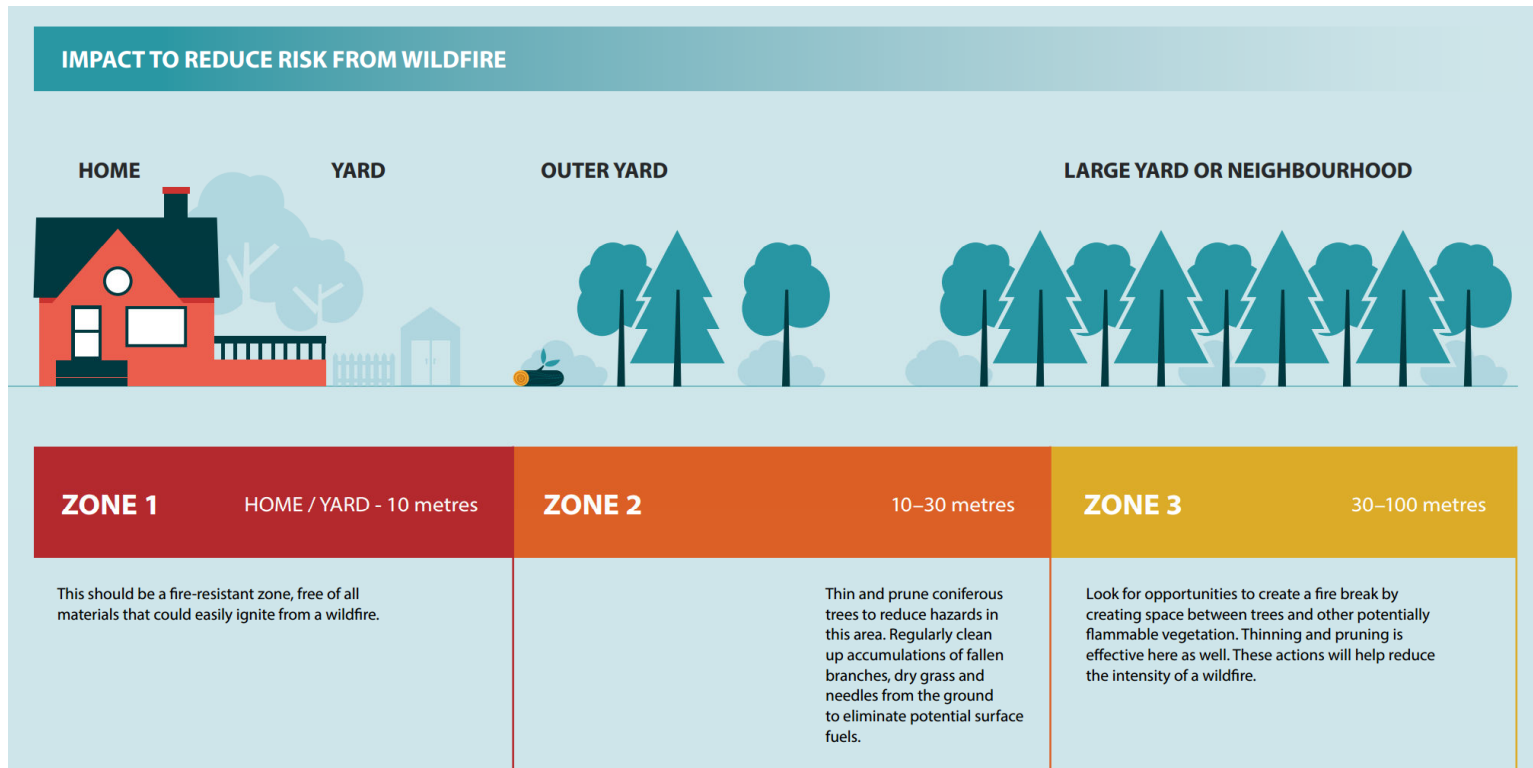
FireSmart - Reducing Home Ignitions

1. Focus on the Home Ignition Zone
2. Work together with neighbours
3. Integrate with community and landscape objectives



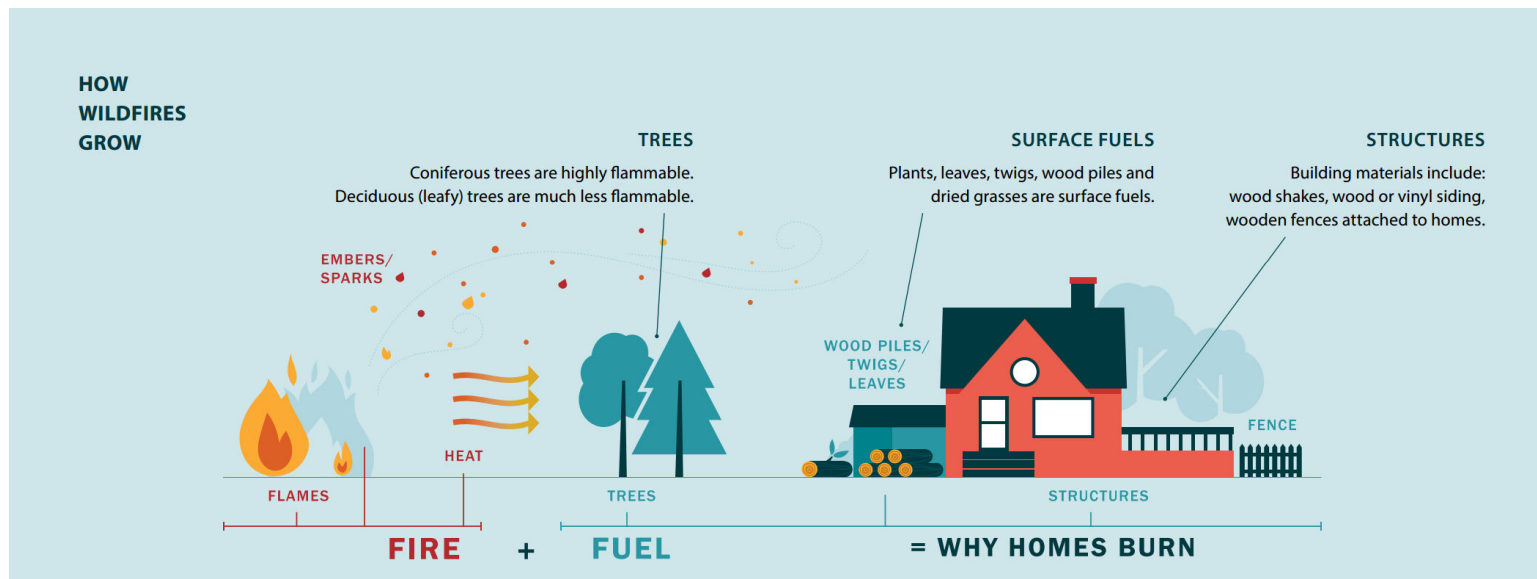
FIRE PREVENTION

FireSmart - Reducing Home Ignitions



FIRE PREVENTION

FireSmart - Reducing Home Ignitions



- Changes made to your home and the area closest to your home have the greatest impact on reducing the risk of wildfire damage.

FIRE PREVENTION

FireSmart – Roofing Material and Design

- Roofing material tested for flammability is assigned a classification:

Class A – high resistance to fire

Class B – moderate resistance to fire

Class C – low resistance to fire

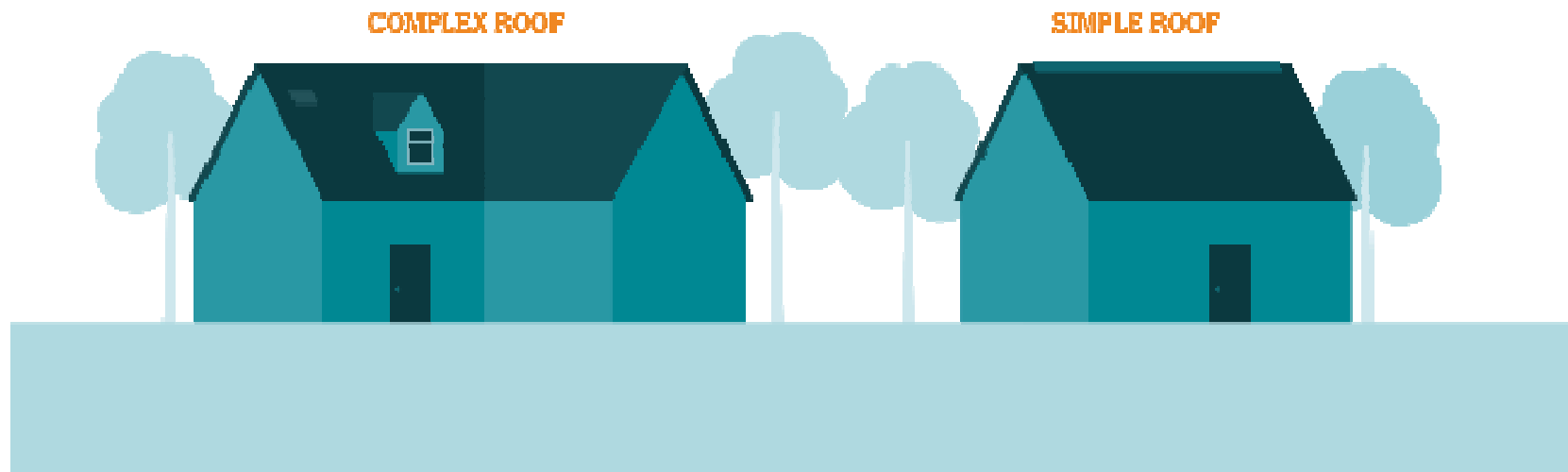


- Class A fire-rated roof assembly offers the best protection.
- Examples of Class A roofing material include clay tile, concrete tile, metal and asphalt shingles..

FIRE PREVENTION

FireSmart – Roofing Material and Design

- A simple roof design will reduce the number of locations on your roof where combustible debris and embers can accumulate.



FIRE PREVENTION

FireSmart – Roof Maintenance

- Inspect regularly
- Replace or repair aging/damaged shingles
- Clear debris
- Cut back branches

FIRE PREVENTION

FireSmart – Siding, Vents and Openings

- A simple exterior wall design will reduce the number of locations for combustible debris and embers to accumulate.
- Unscreened vents can allow heat and embers to enter a building and ignite.
- Install noncombustible material for all vents. Use 3 millimeter screening or ASTM fire rated vents.
- Metal products are recommended for vents and vent flashing.

FIRE PREVENTION

FireSmart – Siding

- Some types of construction materials, such as vinyl siding can melt when exposed to high temperatures, allowing the fire to reach the underlying wall components and penetrate the interior of the building.
- Stucco, brick, fibre cement boards/panels and poured concrete all offer superior fire resistance.



Fibre Cement
Siding



Stucco Siding



Brick Siding

FIRE PREVENTION

FireSmart – Maintenance

- Examine your siding for locations where embers could accumulate or lodge.
- Maintain and remove combustible debris (such as lumber, stored vehicles, branches, grass and leaves) and firewood near the exterior walls.
- It is important to inspect your vents and openings regularly to ensure the vents are in good repair and remove any accumulated combustible debris.

FIRE PREVENTION

FireSmart – Gutters and Eaves

- The gutters on your home provide a place for combustible debris to accumulate and open eaves create an entry point for sparks and embers.
- Select a boxed-in or soffited-eave design for your home. Exposed or open eaves create an entry point for sparks and embers.
- Select gutters and downspouts constructed of noncombustible materials such as galvanized steel, copper and aluminum.

FIRE PREVENTION

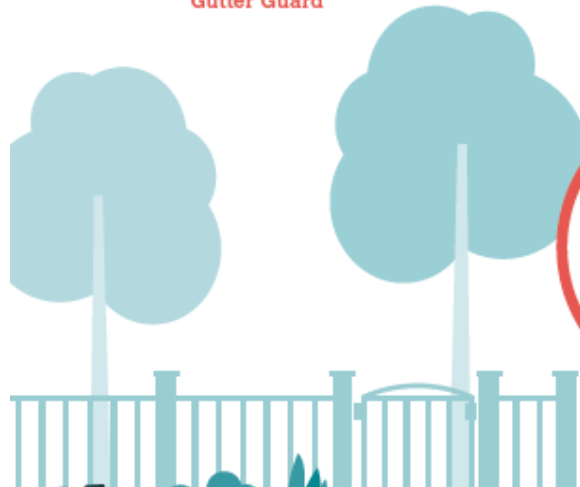
FireSmart – Gutter and Eave Maintenance



Gutter Guard



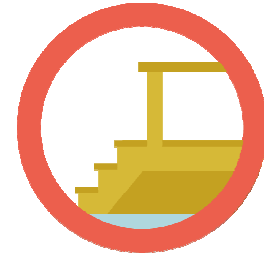
No Gutter Protection



With Gutter Guard

FIRE PREVENTION

FireSmart – Decks and Porches



- Most deck boards are combustible, including dimensional wood, plastic and wood-plastic composites.
- Select fire rated composite decking material for your deck.
- Sheath the underside of the deck with noncombustible sheathing, such as fibre cement board or metal screening.

FIRE PREVENTION

FireSmart – Deck and Porch Maintenance

- Remove combustible debris and vegetation on, around or under decks and other attached structures.
- Move combustible patio furniture, cushions, decorative pieces and brooms inside or as far away from the house as possible.

FIRE PREVENTION

FireSmart – Fencing

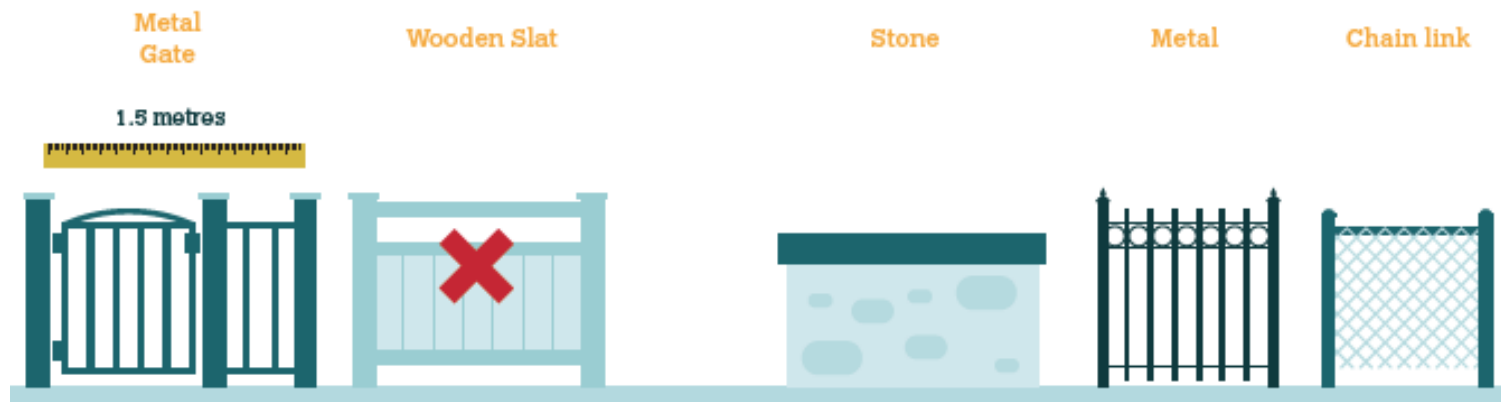


- Wooden fences and boardwalks create a direct line to your home and can contribute to the spread of wildfire.
- Avoid attaching fences and walls constructed of combustible materials directly to your home or building.
- Use a metal gate or noncombustible fence panel that is at least 1.5 metres (5 feet) from the furthest projection (overhang, roof, etc) of the house.

FIRE PREVENTION

FireSmart – Fence Maintenance

- Monitor the condition of a combustible wood fence closely. Repair or replace any fence panels or posts that are showing signs of rot or damage.
- Combustible debris near the fence or wall should be cleared regularly and the lawn well maintained.



FIRE PREVENTION

FireSmart – Landscaping

- Fire-resistant vegetation.
- Landscaping products.
- Firewood and combustibles.

FIRE PREVENTION

FireSmart – Fire Resistant Plants

Characteristics:

- Moist, supple leaves
- Little dead wood and a tendency not to accumulate dead material
- Water-like sap with little or no odor
- Low amount of sap or resin material



FIRE PREVENTION

FireSmart – Maintenance and Watering



FIRE PREVENTION

FireSmart – Highly Flammable Plants

Characteristics

- Contain fine, dry, dead material within the plant.
- Plant stem, branches and leaves contain volatile waxes, terpenes, or oils.
- Leaves are aromatic.
- Gummy, resinous sap with a strong odour.
- Loose, papery bark.

FIRE PREVENTION

FireSmart – Trees and Plants to Avoid

- Spruce
- Pine
- Cedar
- Juniper
- Ornamental Grasses
- Bark/wood mulch

FIRE PREVENTION

FireSmart – Firewood and Combustibles



- Keep firewood and other combustibles away from structures.
- Never pile firewood against your home.

FIRE PREVENTION

Passive & Active Fire Safety Installations

- Smoke alarms
- Carbon monoxide alarms
- Monitored alarm systems
- Residential fire sprinklers



FIRE PREVENTION

Residential Fire Sprinklers

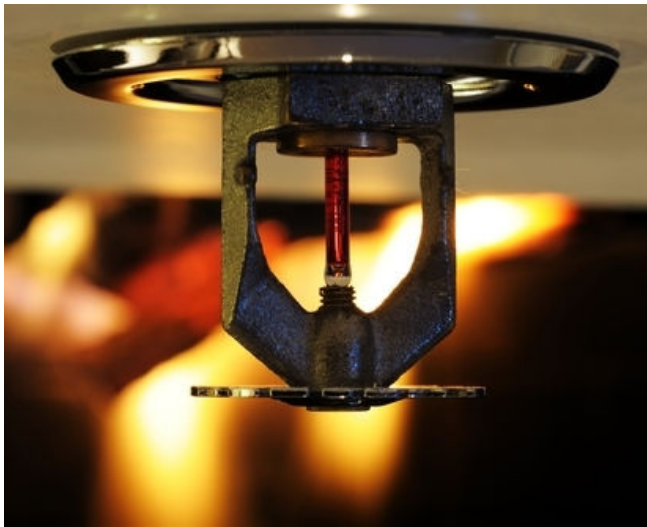
- Don't believe what you see in movies!



FIRE PREVENTION

Residential Fire Sprinklers

- Heat sensitive and individually activated.



FIRE PREVENTION

Residential Fire Sprinklers

- Decreased home fire injuries / deaths.
 - Fire sprinklers reduce production of smoke, allowing more time for egress.
- Reduced property damage.
 - Fire sprinklers reduce flame spread and heat build-up (flashover).

FIRE PREVENTION

Reduced Property Damage



FIRE PREVENTION

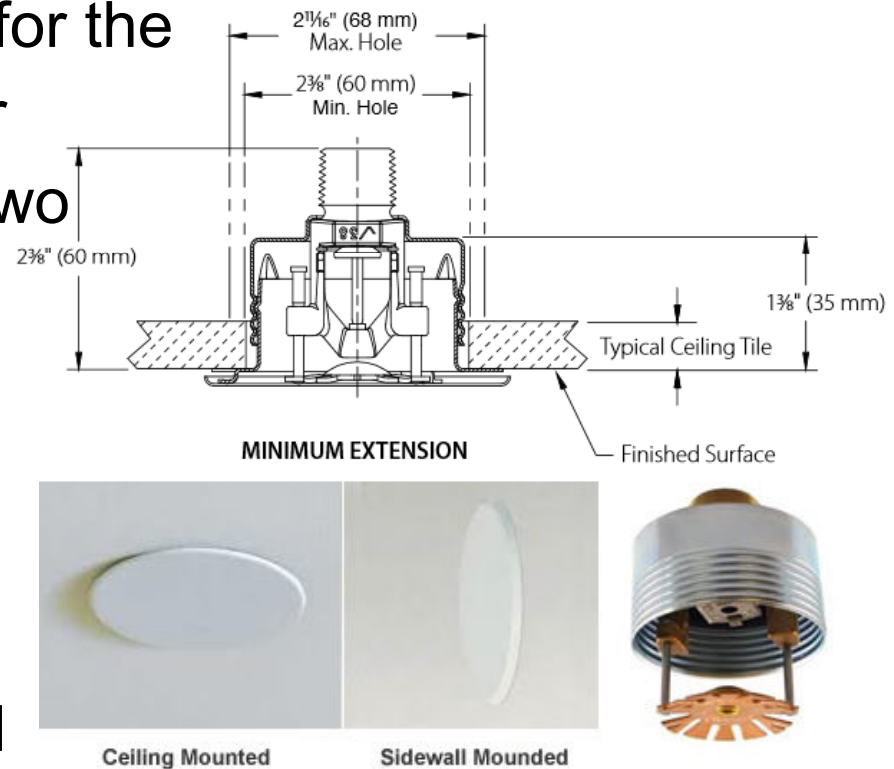
Reduced Property Damage



FIRE PREVENTION

Residential Fire Sprinklers

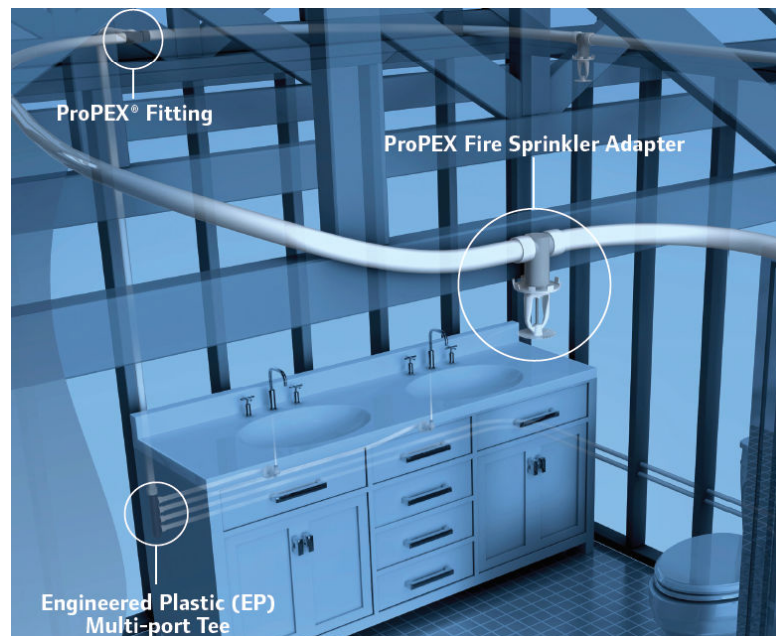
- NFPA 13D - Standard for the Installation of Sprinkler Systems in One and Two Family Dwellings and Manufactured Homes
- Homeowner insurance premium savings.
- Average \$1.35 / ft²
- Cosmetics - concealed sprinklers with colour options



FIRE PREVENTION

Residential Fire Sprinklers

- Piping options - domestic water system or dedicated feed



FIRE PREVENTION

Residential Fire Sprinklers

- Piping options - rigid and flexible piping



FIRE PREVENTION

Residential Fire Sprinklers

- Resources:
 - National Fire Sprinkler Association – www.nfsa.org
 - Home Fire Sprinkler Coalition - www.homefiresprinkler.org

Questions?

Fire Prevention Branch

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RMWB Emergency Services