

## Wildland Fire Hazard Assessment Form

FireSmart Canada's Neighbourhood Recognition Program teaches people how to live with wildland fire and increase their home's chance of survival through proactive actions, while encouraging neighbours to work together to reduce losses and damage. The Neighbourhood Wildland Fire Hazard Assessment is an important step in the FireSmart neighbourhood recognition process. It's a tool to help neighbourhood residents understand their wildland fire hazard and how to reduce it.

Research has shown embers (burning pieces of airborne wood and/or vegetation that can be carried up to two kilometres by the wind) and small surface fires to be the primary source of home ignitions during wildland fires.

Residents must prepare their home to withstand embers and minimize the likelihood of flames or surface fire touching the home or any attachments. This can be accomplished by choosing ignition-resistant building materials and construction techniques and limiting the amount of flammable vegetation in the three home ignition zones that surround each home. Periodic maintenance of vegetation is also important.



## OVERVIEW

It is not uncommon for home ignition zones to overlap onto adjacent properties. This makes the conditions of neighbouring homes and vegetation a part of the wildland fire threat. To maximize benefits, it's important that neighbours work together to reduce their shared wildland fire hazard and risk.

The Neighbourhood Wildland Fire Hazard Assessment speaks to the general conditions in the neighbourhood and does not provide details on individual properties.

### The assessment process:

- Is completed by the Neighbourhood Recognition Program (NRP) Specialist during a walk-through or a drive-by of the neighbourhood and does not require each individual dwelling unit to have a home hazard assessment completed prior to the neighbourhood assessment.
- Needs a logical recognized neighbourhood boundary (defined by streets, adjacent public property, infrastructure rights-of-way, etc).

### The assessment should focus on:

- Vulnerability of homes to embers, ignition of small surface fires, and crown fire.
- Condition of the structures themselves.
- Immediate hazards within the Home Ignition Zone on individual properties.
- Concerns presented by common/open space areas or adjacent public lands.

Also consider factors that impact hazard and influence fire behaviour or **structure ignitability**:

- Home construction characteristics (materials used for roofs, siding, decks, etc)
- General landscaping characteristics - vegetation types and condition
- Slope and aspect (direction a neighbourhood faces - north, south, east, or west)
- Housing density

The Neighbourhood Wildland Fire Hazard Assessment recommendations are to be prioritized in the Neighbourhood Mitigation Plan and used by the FireSmart Neighbourhood Committee to organize FireSmart events within the neighbourhood boundaries.

**Wildland Fire Hazard Assessment Form****DEFINING THE FIRESMART NEIGHBOURHOOD**

The size of the FireSmart Neighbourhood is largely determined by the FireSmart Neighbourhood Champion and Committee – their comfort level with the location and number of neighbourhood properties is all important. It may be most efficient to limit the size of the neighbourhood to ‘block party sized’ groups of between 20 and 50 homes. Larger neighbourhoods that feature existing homeowner or cottager associations may also be quite workable.

**General Neighbourhood Description****Neighbourhood Name:****Community (Town/City):****Prov/Terr:****Latitude:****Longitude:****Boundary Description:**

Provide a description of the neighbourhoods recognized boundaries such as streets, crown, or municipal land parcels, utility, or other infrastructure rights-of-way, etc.

**Wildland Fire Hazard Assessment Form****General Neighbourhood Information**

Number of properties - homes within the neighbourhood's identified boundary.

*Note: Multiple neighbourhoods can be located within a single large community.*

For definition purposes, a dwelling unit is:

- A household/residence built for occupancy by one person, a family, or roommates, including mobile homes and cabins; and for multi-family residential occupancies (i.e. duplexes)
- Townhomes
- An apartment building with 10 units is considered ten dwelling units

**Description of Properties within the Boundary**

Number of dwelling units:

Number of residents:

**Residential types in the neighbourhood** *(check all that apply):*

Single Family

Duplex

Townhome

Apartment

Mobile/Manufactured

Other

**Types of ownership** *(check all that apply):*

Private

Rental

Public *(Crown/Municipal)*

Reservation

**Lot sizes** *(check all that apply):*

Less than 0.05 hectares or 500 square metres - (30' x 100' lot = 0.03 hectares)

0.05 to 0.1 hectares or 500 to 1,000 square metres - (60' x 100' lot = 0.06 hectares)

0.1 to 0.25 hectares or 1,000 to 2,500 square metres - (100' x 100' lot = 0.1 hectares)

Greater than 0.5 hectares or 5,000 square metres

**Other Neighbourhood Information** *(eg . Full time residents vs vacation/absentee residents, commercial/business operations, existing Homeowners Association or other groups):*

**Wildland Fire Hazard Assessment Form****Description of Local Wildland Fire Characteristics**

Fire intensity and rate of spread depend on the vegetation type (coniferous/deciduous) and condition (live/dead), topography, and typical weather patterns.

**Describe the common vegetation types in the neighbourhood** (*ie. grasses, shrubs, and trees*):

**Describe the topography within the neighbourhood** (*ie. geographical features such as steep slopes and what direction the slope faces, the presence of ravines and gullies or is the area primarily flat*):

**Wind exposure**

No regular exposure to winds

Regularly exposed to winds

Frequent severe winds

**History of wildland fire:**

Area with recent history of fire occurrence

Area with history of fire occurrence

Area with no history of fire occurrence

Unknown

**Wildland Fire Hazard Assessment Form****NEIGHBOURHOOD OBSERVATIONS**

Use this section to record observations from within the neighbourhood and recommendations for action that can be included in the Neighbourhood Mitigation Plan. Photos that illustrate successful hazard reduction efforts and areas that need improvement are useful and may be filed with Neighbourhood Recognition Program documents.

Remember, this is a neighbourhood-wide view and should report on the overall conditions of the entire neighbourhood. Individual home ignition zone assessments are not required for the Neighbourhood Wildland Fire Hazard Assessment.

**Observations**

The observation section is broken down by the characteristics of homes and the vegetation management within the home ignition zones and common areas. Mark the appropriate box for each category that best represents the conditions within the neighbourhood.

**Immediate Zone**

This zone includes the exterior of the structure and a non-combustible area that extends 0 m-1.5 m around the structure.

**Homes**

General building construction: Are homes made from ignition resistant building materials?

**Roofing Materials**

Fire-rated: Good condition roof materials (metal, clay, asphalt shingles).

Non-fire rated: Unrated roof materials (wooden shake) or fire rated shingles in poor condition.

Greater than 75% of homes have fire-rated roof materials (metal, clay, asphalt shingles)

50% to 75% of homes have fire-rated roof materials (metal, clay, asphalt shingles)

25% to 50% of homes have fire-rated roof materials (metal, clay, asphalt shingles)

Less than 25% of homes have fire-rated roof materials (metal, clay, asphalt shingles)

**Wildland Fire Hazard Assessment Form****Gutter Type and Roof Cleanliness**

Gutter Type and leaf litter, pine needles, or debris on roof or in gutters.

Greater than 75% of homes have non-combustible gutters, with cleaned roof and gutters

50% to 75% of homes have non-combustible gutters, with cleaned roof and gutters

25% to 50% of homes have non-combustible gutters, with cleaned roof and gutters

Less than 25% of homes have non-combustible gutters, with cleaned roof and gutters

**Vents and Openings**

Vents allow air to flow in or out of buildings and can be a potential ignition source.

Greater than 75% of homes have non-combustible, fire-rated vents with 3mm screening

50% to 75% of homes have non-combustible, fire-rated vents with 3mm screening

25% to 50% of homes have non-combustible, fire-rated vents with 3mm screening

Less than 25% of homes have non-combustible, fire-rated vents with 3mm screening

**Building Exterior or Siding**

Non-combustible or ignition-resistant siding: Fibre cement, stucco, log, metal, brick/stone.  
Combustible siding: Vinyl or wood.

Greater than 75% of homes have non-combustible or ignition-resistant siding

50 to 75% of homes have non-combustible or ignition-resistant siding

25 to 50% of homes have non-combustible or ignition-resistant siding

Less than 25% of homes have non-combustible or ignition-resistant siding

**Ground-to-Siding Clearance**

15 centimetre non-combustible vertical ground-to-siding clearance.

Greater than 75% of homes have 15 cm non-combustible vertical ground-to-siding clearance

50% to 75% of homes have 15 cm non-combustible vertical ground-to-siding clearance

25% to 50% of homes have 15 cm non-combustible vertical ground-to-siding clearance

Less than 25% of homes have 15 cm non-combustible vertical ground-to-siding clearance

**Wildland Fire Hazard Assessment Form****Balcony, Deck, Porch**

Non-combustible decks feature no gaps or cracks, heavy timber, non-combustible or fire-rated construction with non-combustible surface and no combustible debris under the deck.

Greater than 75% of homes have a non-combustible deck with no combustibles under deck

50% to 75% of homes have a non-combustible deck with no combustibles under deck

25% to 50% of homes have a non-combustible deck, with no combustibles under deck

Less than 25% of homes have a non-combustible deck, with no combustibles under deck

**Window Glass**

Tempered or multi-pane vs single pane windows.

Greater than 75% of homes have tempered or multi-pane windows

50% to 75% of homes have tempered or multi-pane windows

25% to 50% of homes have tempered or multi-pane windows

Less than 25% of homes have tempered or multi-pane windows

**0 m - 1.5 m from the Structure**

The area up to 1.5 metres from the ground-level exterior footprint of the structure, including any attachments or extensions, must feature a non-combustible surface with no combustible debris, materials, fences, or plants present.

Greater than 75% of homes are free of combustible debris, materials, fences, or vegetation

50% to 75% of homes are free of combustible debris, materials, fences, or vegetation

25% to 50% of homes are free of combustible debris, materials, fences, or vegetation

Less than 25% of homes are free of combustible debris, materials, fences, or vegetation



**Wildland Fire Hazard Assessment Form****Intermediate Zone**

The area 1.5 metres to 10 metres from the home must feature:

- No coniferous (evergreen) forest vegetation.
- Surface vegetation of grass less than 10 centimetres long or non-combustible surface and low flammability (deciduous) plants.
- No woodpiles and other combustible materials, stored vehicles or outbuildings not meeting FireSmart guidelines.

Greater than 75% of homes have treated Intermediate Zone

50% to 75% of homes have treated Intermediate Zone

25% to 50% of homes have treated Intermediate Zone

Less than 25% of homes have treated Intermediate Zone

**Extended Zone**

The area 10 metres to 30 metres from the home must feature:

- Separated coniferous (evergreen) forest vegetation (3 metres between adjacent treetops).
- Reduced surface vegetation (dead branches, long grass, needles).
- Flammable shrubs (coniferous) should be spaced out and away from coniferous trees.
- No low-lying coniferous tree branches (less than 2 metres from ground).

Greater than 75% of homes have treated Extended Zone

50% to 75% of homes have treated Extended Zone

25% to 50% of homes have treated Extended Zone

Less than 25% of homes have treated Extended Zone

**Additional considerations:**

The area 30 metres to 100 metres from the home is often a common/open space area or an adjacent public/private land area.

This area is often not owned by neighbourhood residents but may feature accumulated wildland fuels that can support wildfires spreading towards or through the neighbourhood.

Neighbourhood is adjacent to wildlands with accumulated fuels

Neighbourhood is not adjacent to wildlands with accumulated fuels

**Wildland Fire Hazard Assessment Form****Management Plan**

Is there a management plan for the wildland fuels in the area 30 metres - 100 metres from homes and structures? If so, please describe:

**Additional comments or observations regarding neighbourhood conditions:**

**Wildland Fire Hazard Assessment Form**
**SUMMARY AND RECOMMENDATIONS**

Use this section to summarize observations made in the Neighbourhood Wildland Fire Hazard Assessment.

**Home Ignition Zone Hazard Factor Summary – Part 1**

Provide a percentage number in the blank provided to summarize approximate neighbourhood FireSmart compliance for each hazard factor.

<b>Roofing Materials (page 6):</b>	%	of homes have fire-rated roof materials (metal, clay, asphalt shingles)
<b>Gutter Type and Roof Cleanliness (page 6):</b>	%	of homes have cleaned and maintain their roof and gutters
<b>Vents and Openings (page 7)</b>	%	of homes have non-combustible, fire-rated vents with 3 mm screening.
<b>Building exterior or siding (page 7)</b>	%	of homes have non-combustible or ignition resistant siding
<b>Ground-to-siding clearance (page 7)</b>	%	of homes have a 15 cm non-combustible vertical ground-to-siding clearance
<b>Balcony, deck, porch (page 8)</b>	%	of homes have non-combustible deck with no combustibles under deck
<b>Multi-pane vs single pane windows (page 8)</b>	%	of homes have multi-pane windows
<b>Immediate Zone (page 8)</b>	%	of homes are free of combustible debris, materials, fences, or vegetation
<b>Intermediate Zone (page 9)</b>	%	of homes have treated Intermediate Zone
<b>Extended Zone (page 9)</b>	%	of homes have treated Extended Zone

**Wildland Fire Hazard Assessment Form****Home Ignition Zone Hazard Factor Summary – Part 2**

List issues identified and ranked as priorities for hazard mitigation as well as areas where there is high compliance with FireSmart guidelines within the neighbourhood.

Emphasis should be on the FireSmart status of the homes and the Immediate and Intermediate Zones.

**Recommendations**

Provide recommendations for neighbourhood activities to reduce wildland fire hazard.

**Wildland Fire Hazard Assessment Form****NEXT STEPS**

The information collected during the Neighbourhood Wildland Fire Hazard Assessment process will help develop recommendations that can be applied to the neighbourhood's FireSmart Neighbourhood Mitigation Plan, which is a prioritized list of hazard reduction projects and the related investments needed to achieve them for the neighbourhood. The Neighbourhood Mitigation Plan also highlights suggested homeowner actions and education activities - called FireSmart Events - that participants will strive to complete - generally one event per year, over a period of multiple years. Neighbourhood Mitigation Plans should be updated at least every three years.

Neighbourhood Wildland Fire Hazard Assessment recommendations may address other neighbourhood/ fire safety issues such as:

- Ingress/egress routes
- Street signs and address numbers
- Location of fire service and capabilities
- Water supply for fire service response - hydrant locations , and reliable and accessible water sources for drafting, etc.

The local fire department can help in determining what other safety issues should be addressed.

**Assessment Participants**

List the principal participants who assisted in the development of this document. This will be the NRP Specialist, the Neighbourhood Champion or Committee members, local Fire Chief etc.

<b>Name</b>	<b>Role/Organization</b>	<b>Phone</b>	<b>Email</b>	<b>Date</b>
-------------	--------------------------	--------------	--------------	-------------

*\*PLEASE READ - Legal Disclaimer: The information contained herein provides general information only. While it is believed to be accurate, it is provided without representation or warranty of any kind, including as to its accuracy or its suitability for the purpose(s) for which you may wish to rely on it. Accordingly, any and all use of or reliance on such information shall be in your own discretion and at your own risk. For greater clarity, Canadian Interagency Forest Fire Centre (CIFFC) (FireSmart Canada) accepts no responsibility or liability for any injury, loss or damage, whether direct, indirect, special, incidental, punitive or consequential, that any person may sustain as a result of the information in, the results of, or anything done or omitted pursuant to, this assessment.*