



Retrieved from <https://www.britannica.com/plant/spruce>

# Ponoka County FireSmart™



## Wildland Fire Types



**Ground**



**Surface**



**Crown**

Retrieved from <http://ontario.ca/forestfire>

# What is wildfire?

A wildfire is an uncontrolled fire that burns in wildland vegetation, often in rural areas (National Geographic).

Consist of:

- Ground fires
- Surface fires
- Crown fires

# 2020 Wildfire Statistics

Alberta Wildfire

<https://wildfire.alberta.ca/resources/maps-data/documents/2020AlbertaWildfireStats-Dec15-2020.pdf>

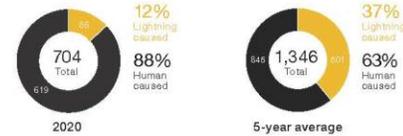
2020

## Alberta Wildfire season statistics

Wildfire season March 1 to October 31, 2020



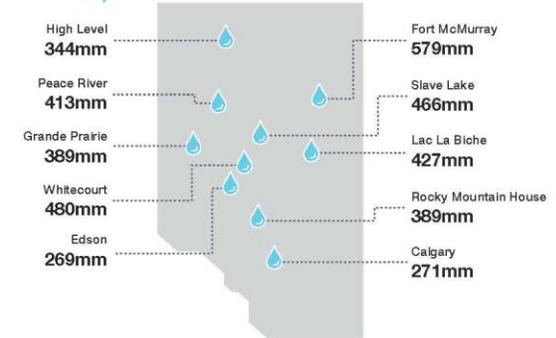
### 704 wildfires



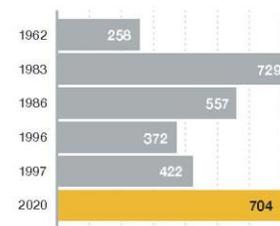
### Top human causes



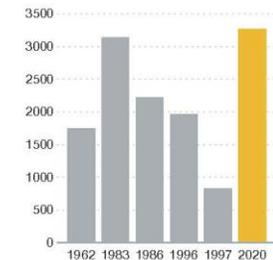
### Precipitation by area



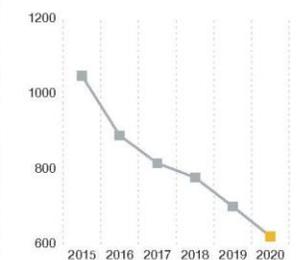
### Years with fewest wildfires



### 3,269 hectares burned



### Human-caused wildfires



### 143 firefighters and support staff exported



### Fire Ban System



### 289 tickets and warnings issued



\*Outside wildfire season: Deployed in December 2019, returned January 2020.



Ponoka County Rubbish/Grassfire Fire Incidences from 2009 to 2016							
Year	Human	Nature	Vehicle/ ATV/ Equipment	Powerline	Landfill	Train	Unknown/ Other
2009	10	2	2				20
2010	1	3	3				15
2011	2	1		1			5
2012	1	4				1	10
2013	3	1	2	3			25
2014		3					15
2015	10	5	2		1		10
2016	19	3	3	2	1		21

# Wildfire History in Ponoka County

<b>Grass and Rubbish Fires</b>			
<b>Year</b>	<b>East District</b>	<b>West District</b>	<b>Total</b>
2016 (May-Dec)	27	22	49
2017	33	15	48
2018	27	25	52
2019	22	14	36
2020	28	8	36
2021 (Jan-June)	26	15	41

# Wildfire History in Ponoka County

# What is FireSmart™?

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“FireSmart is living with and managing for wildfire.

Preparing for the threat of wildfire is a shared responsibility. Community members, community leaders, forest companies, industry and government we all have responsibility to lessen the effects of wildfire. FireSmart uses preventative measures to reduce wildfire threat to Albertans and their communities while balancing the benefits of wildfire on the landscape.”

- Alberta Wildfire



# What is FireSmart™?

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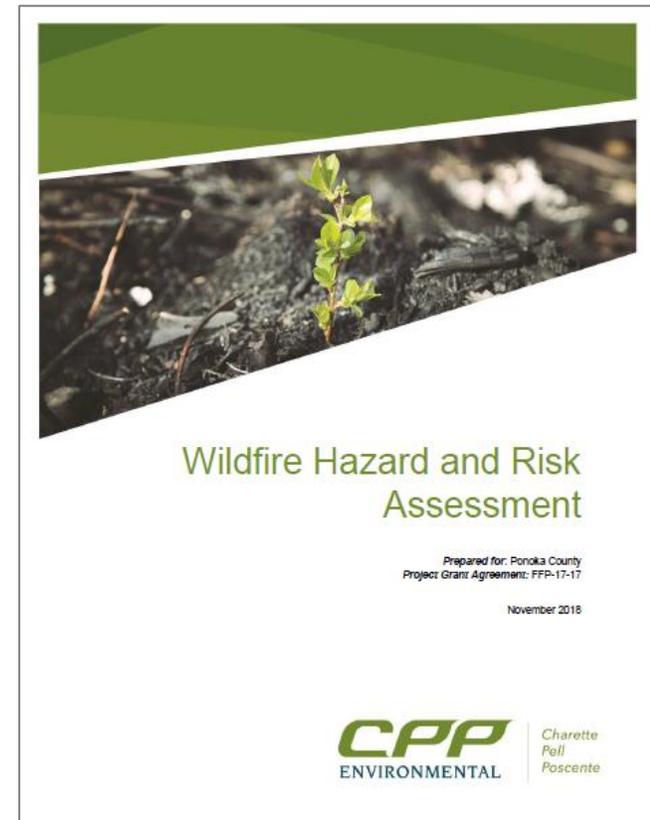
“FireSmart...

- Can reduce the likelihood of large uncontrollable wildfires in Alberta’s forests.
- Recognizes the benefit of introducing the controlled application of fire to sensitive and protected areas of the forest (prescribed fire).
- Is built on partnerships between government, industry and homeowners. Wildfires burn regardless of administrative boundaries.”

- Alberta Wildfire

# Ponoka County and FireSmart™

- 2018: Developed a Wildfire Hazard and Risk Assessment and a Wildfire Preparedness Guide
  - One (1) summer village
  - Four (4) hamlets
  - Fifty-six (56) rural subdivisions
  - Identified the wildfire risk based on variables
- 2019: Information was handed out within the high-risk communities and communities of concern
- 2021: Public information sessions



# Wildfire Hazard and Risk Assessment, 2018

## Values at Risk

- Standard Values (homes, campgrounds, commercial facilities, etc.)
- Critical Values (powerlines, schools, hospitals, water treatment facilities, etc.)
- Dangerous Goods Values (gas stations, plants, landfills, etc.)
- Special Values (cemeteries, religious sites, historical buildings, wildlife zones, etc.)



# Wildfire Hazard and Risk Assessment, 2018

Matrix comparing different factors to compare the risk between rural communities relative to one another

- **Likelihood of Occurrence**
  - fuel types, slope, ignition sources, residential burning
- **Defensibility of Community**
  - structure density, fire spread barriers, forest fuel size, maintenance, access
- **Inherit Risk Score**

		Wildfire Risk Matrix																	
		Likelihood																	
		1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35
Consequence	3	3	9	15	21	27	33	39	45	51	57	63	69	75	81	87	93	99	105
	6	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210
	9	9	27	45	63	81	99	117	135	153	171	189	207	225	243	261	279	297	315
	12	12	36	60	84	108	132	156	180	204	228	252	276	300	324	348	372	396	420
	15	15	45	75	105	135	165	195	225	255	285	315	345	375	405	435	465	495	525
	18	18	54	90	126	162	198	234	270	306	342	378	414	450	486	522	558	594	630
	21	21	63	105	147	189	231	273	315	357	399	441	483	525	567	609	651	693	735
	24	24	72	120	168	216	264	312	360	408	456	504	552	600	648	696	744	792	840
	27	27	81	135	189	243	297	351	405	459	513	567	621	675	729	783	837	891	945
	30	30	90	150	210	270	330	390	450	510	570	630	690	750	810	870	930	990	1050
	33	33	99	165	231	297	363	429	495	561	627	693	759	825	891	957	1023	1089	1155
	36	36	108	180	252	324	396	468	540	612	684	756	828	900	972	1044	1116	1188	1260
	39	39	117	195	273	351	429	507	585	663	741	819	897	975	1053	1131	1209	1287	1365
	42	42	126	210	294	378	462	546	630	714	798	882	966	1050	1134	1218	1302	1386	1470
	45	45	135	225	315	405	495	585	675	765	855	945	1035	1125	1215	1305	1395	1485	1575
	48	48	144	240	336	432	528	624	720	816	912	1008	1104	1200	1296	1392	1488	1584	1680
51	51	153	255	357	459	561	663	765	867	969	1071	1173	1275	1377	1479	1581	1683	1785	
54	54	162	270	378	486	594	702	810	918	1026	1134	1242	1350	1458	1566	1674	1782	1890	
57	57	171	285	399	513	627	741	855	969	1083	1197	1311	1425	1539	1653	1767	1881	1995	
60	60	180	300	420	540	660	780	900	1020	1140	1260	1380	1500	1620	1740	1860	1980	2100	
63	63	189	315	441	567	693	819	945	1071	1197	1323	1449	1575	1701	1827	1953	2079	2205	
66	66	198	330	462	594	726	858	990	1122	1254	1386	1518	1650	1782	1914	2046	2178	2310	
69	69	207	345	483	621	759	897	1035	1173	1311	1449	1587	1725	1863	2001	2139	2277	2415	
72	72	216	360	504	648	792	936	1080	1224	1368	1512	1656	1800	1944	2088	2232	2376	2520	

# WHRA Findings

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## HIGH-RISK COMMUNITIES

- Poor Man's Flats
- Rimcrest Hills
- Rimbey Ridge
- Weiss
- Jada Development



## COMMUNITIES OF CONCERN

- Raymond Shores
- Deere Park
- Meridian Beach
- Meridian Country Estates

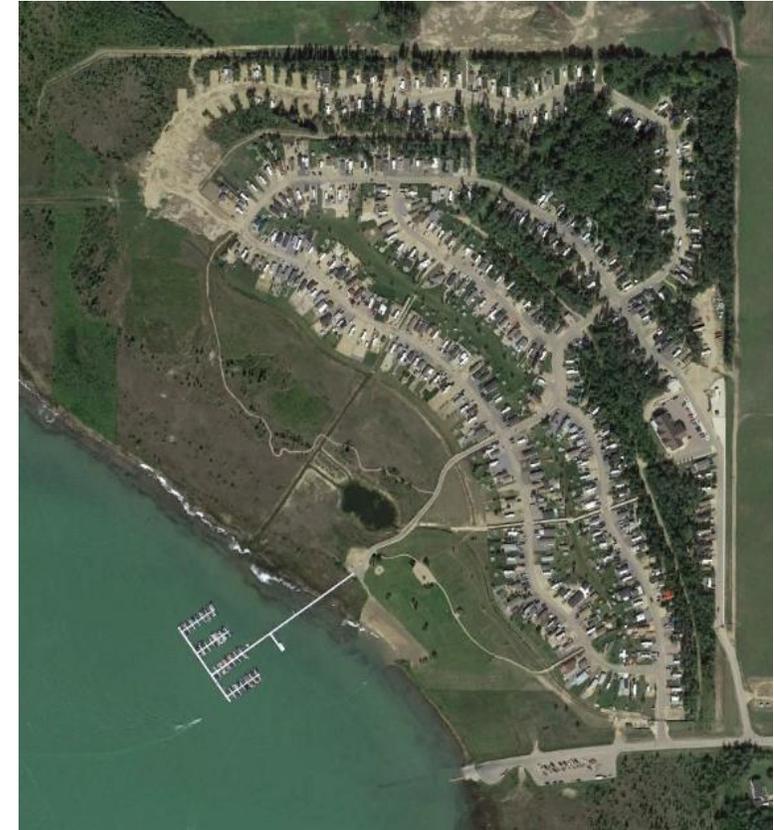


# What did we learn?

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## Main hazards and risks

- Mixedwood within and surrounding the community
- Large conifer patches / abundant ladder fuels
- High-density housing
- Single egress / gated communities
- Opportunity for FireSmart™ practices



Retrieved from Google Earth

# What can you do?

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Wildfire season awareness  
(March 1 – October 31)



Fire permits



FireSmart™ your property  
and community

# What can you do?

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Be prepared

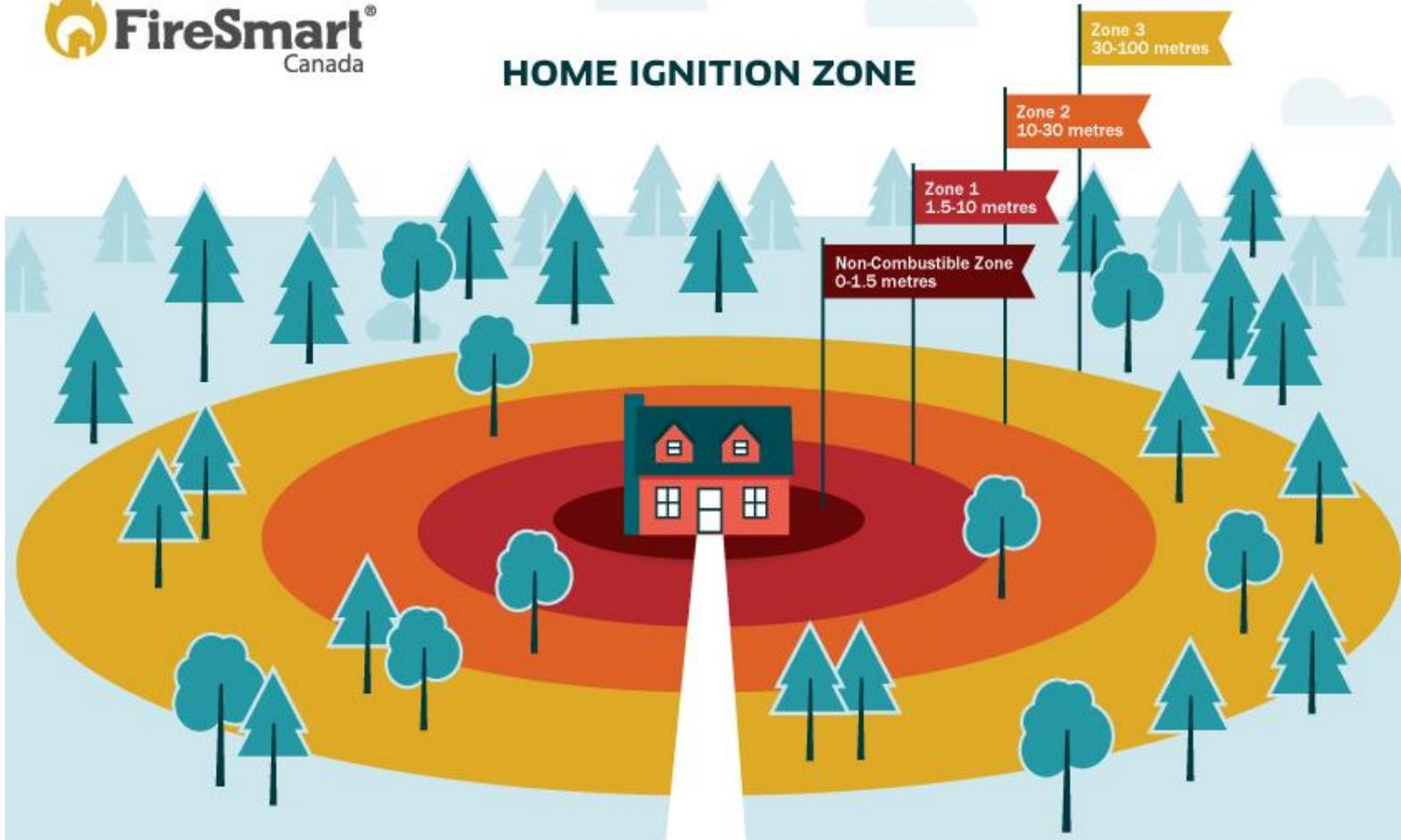


Home assessment



Landscaping/building

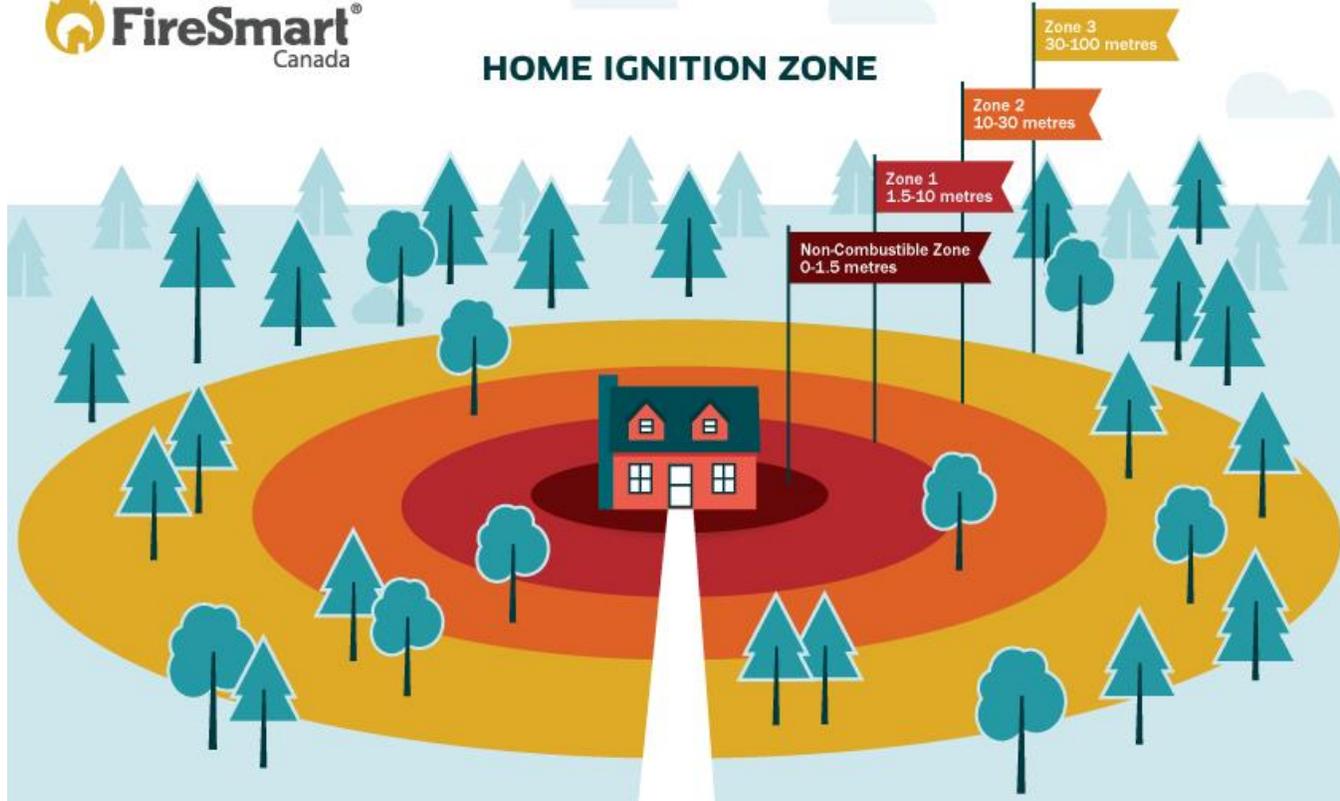
## HOME IGNITION ZONE



# Home Ignition Zone

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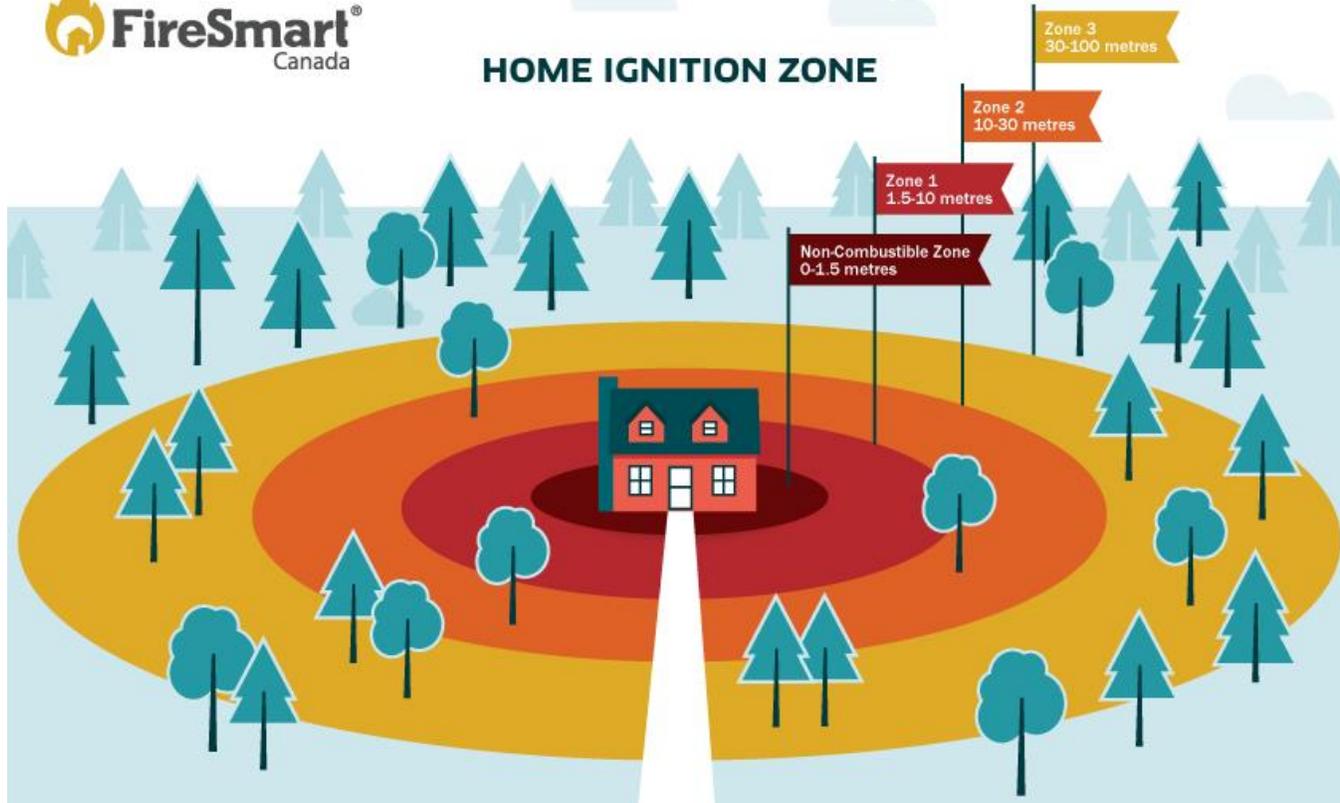
## HOME IGNITION ZONE



## Non-Combustible Zone (0 – 1.5 m)

- Reduce the chance of embers igniting materials near your home
- Surrounds entire home
- Clear vegetation and combustible material down to mineral soil
- Use non-combustible materials (gravel, brick, or concrete)
- woody shrubs, trees or tree branches should be avoided in this zone, of mitigate if present

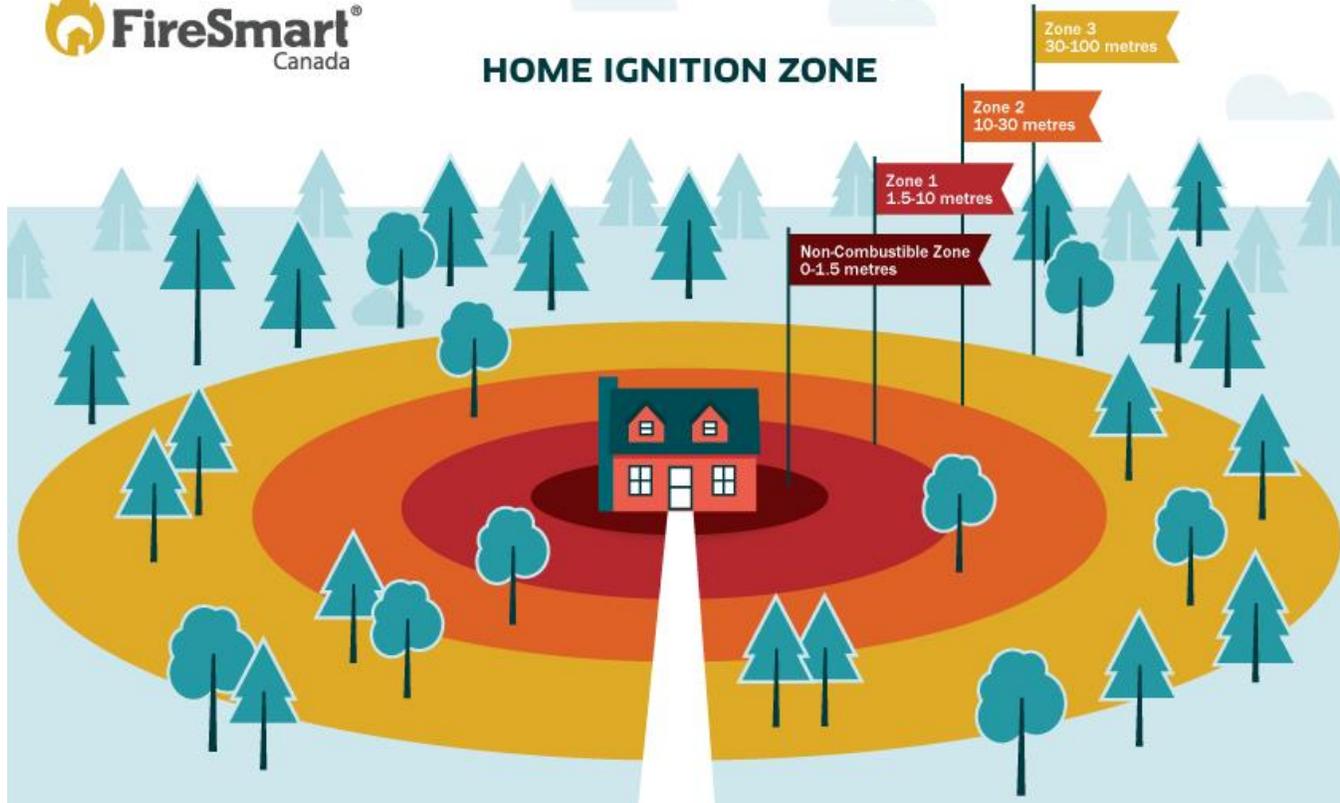
## HOME IGNITION ZONE



## Zone 1 (1.5 – 10 m)

- Create a landscape that will not easily transmit fire to the home
- Plant low-density fire-resistant plants
- Avoid woody mulch
- Move firewood piles, recreational vehicles, furniture, and other combustibles out of this zone
- Mitigate sheds and other structures to the same standards as those of your home

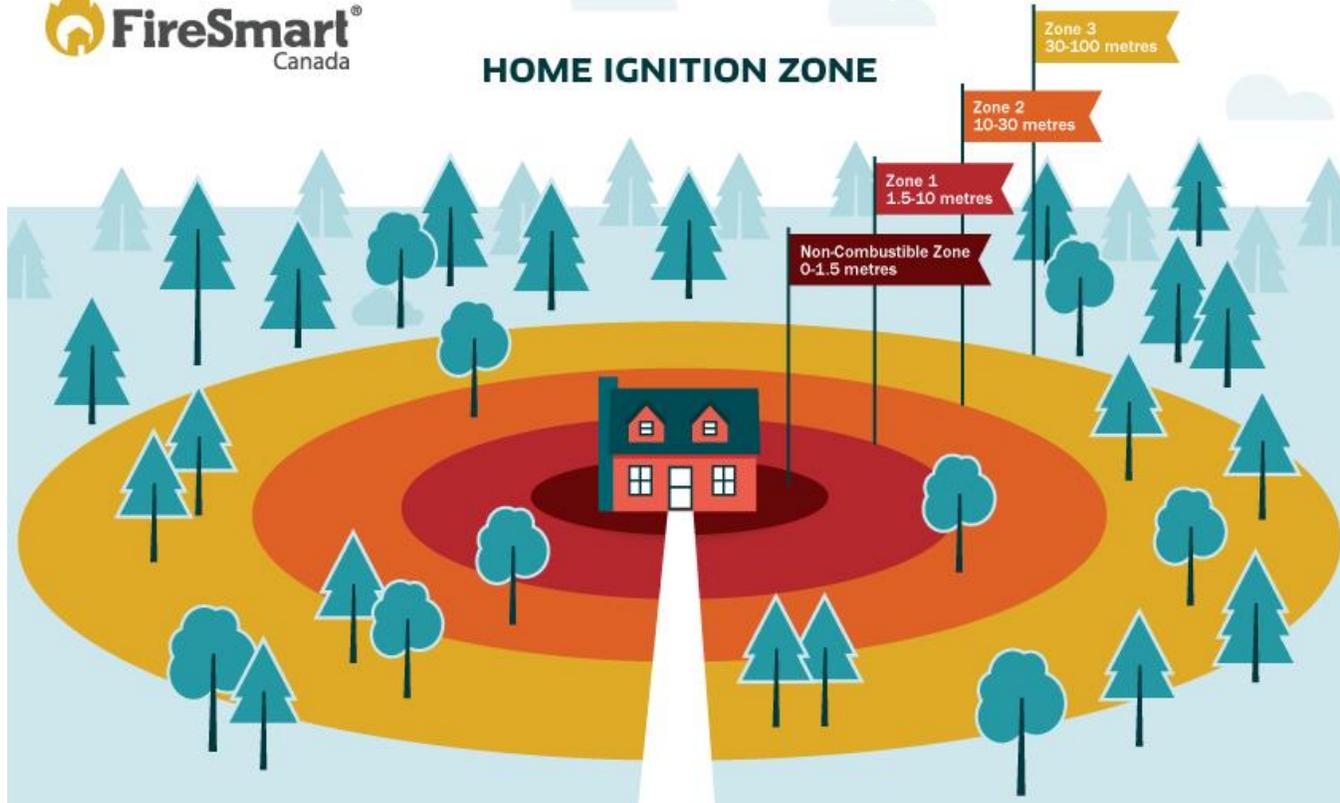
## HOME IGNITION ZONE



## Zone 2 (10 – 30 m)

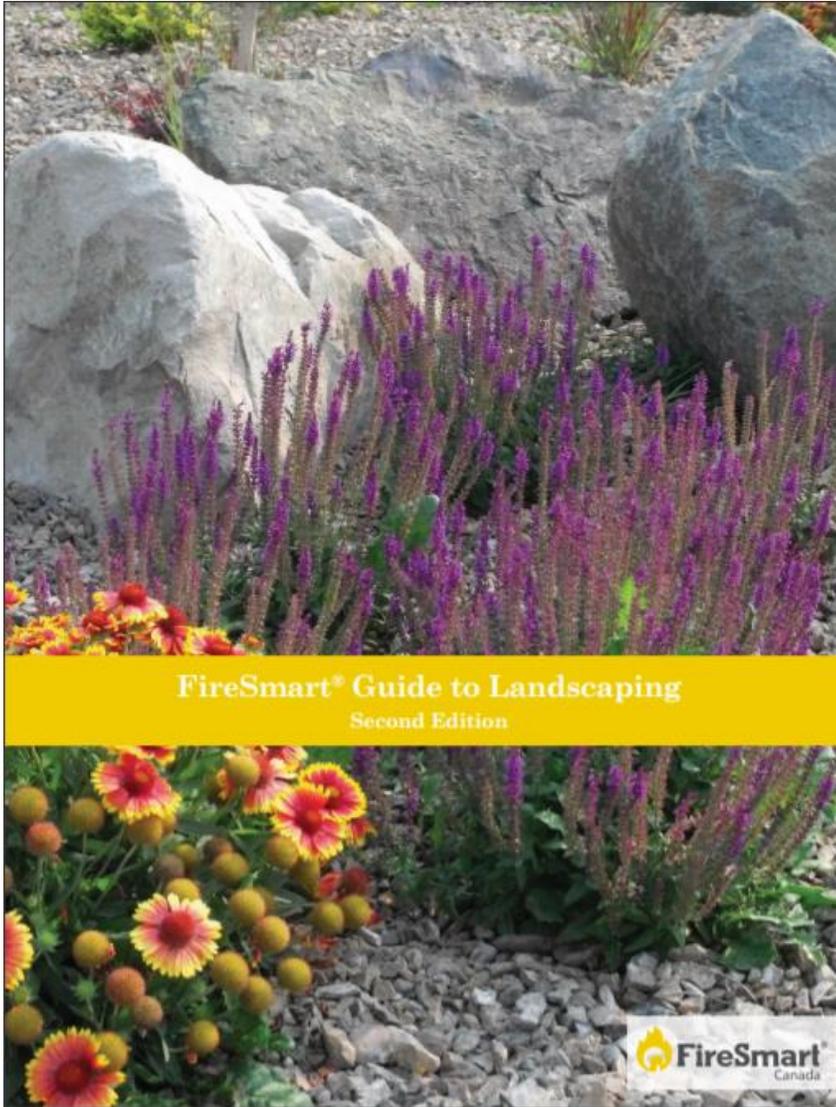
- Thin (3 m apart) and prune (2 m from the ground) evergreen trees
- If possible, pruning trees up to 100 metres from your home (Zone 3) is recommended
- Regularly clean up accumulations of fallen branches, dry grass and needles
- Consider seeking the guidance of a forest professional on appropriate management options for this zone

## HOME IGNITION ZONE



## Zone 3 (30 – 100 m)

- Taking FireSmart actions in Zone 3 on your property will influence how a wildfire approaches your home
- Create space between trees and other potentially flammable vegetation
- Thin and prune evergreens
- Consider seeking the guidance of a forest professional on appropriate management options for this zone



# Yard and Landscaping

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- Fire resistant plants (e.g., bearberry, deciduous trees and shrubs, succulents)
- Plants to avoid: juniper, cedar, pine, tall grass, spruce
- Xeriscaping
- Caution: bark mulch and pine needle mulch (use rock instead)
- Keep your grass mowed shorter than 10 cm
- Contact local utility provider if vegetation maintenance is required around powerlines

# Home Construction/Renovations

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Retrieved from <https://hr2construction.ca/how-much-does-it-cost-to-build-a-house-in-alberta/>

Consider wildfire potential when building/renovating your house.

– Use materials such as:

- Metal or asphalt roofing
- Screen or fire rate any vents
- Fibre cement, stucco, concrete, or brick siding
- Multi-pane, tempered glass windows
- Ensure garage doors are properly fitted
- Select a boxed-in/soffited-eaves and metal gutters
- Use metal rails on decks and balconies, sheath the underside
- Use fire-rated materials where possible

# Home Construction/Renovations

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Retrieved from <https://hr2construction.ca/how-much-does-it-cost-to-build-a-house-in-alberta/>

## Other considerations:

- Keep combustibles away from house (firewood, patio furniture, etc.)
- Avoid attaching fences and walls made of combustible materials directly to your house
- Maintain structures made of combustible materials (i.e., wooden fences, old buildings)

# Summary

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- Wildfire is a natural cycle but can be devastating when it encroaches populated areas
- FireSmart™ techniques can be applied to **private properties** and **communities**
- High risk communities include coniferous fuels, high density housing, and communities with a single egress
- Apply FireSmart™ principles to mitigate wildfire threat