

Wildfire in rural area

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Yard Whispers www.yardwhispers.ca



About Us

Trees are our
Passion

Yard Whispers is a leading tree, forestry and agroforestry **consulting company that provides services** for sustainable management of trees/forest on public and private lands

We offer services to:

- ❑ Residential and commercial business
- ❑ Golf course industry
- ❑ Municipal governments
- ❑ Parks and campgrounds
- ❑ Urban developers
- ❑ Legal and regulatory bodies
- ❑ Educational institutions
- ❑ NGO - provincial, national and international

Yard Whispers is wholly owned subsidiary of **ATTS Group**

Our Services

Arborist Services

- **Forensic Tree Expert** for insurance and legal services
- Integrated Pest Management- Tree pests ID, assessment and recommendation
- **Tree Risk and Hazard Assessments (TRAQ Certified)**
- Tree appraisal and value assessment
- Tree preservation and protection plan
- Tree planning and designs for acreage owners

Urban/Town Tree services

- **Tree inventory for rural and urban areas**
- Urban forest management plan
- **Development of tree bylaws, policy and regulations**

Natural forest management

- Woodlot management plans- harvesting and reforestation
- Tree/forest design, planting and species selection for reforestation and reclamation projects

Agroforestry Services

- Shelterbelts and windbreaks design
- Riparian and natural revegetation
- Biodiversity, wildlife and pollinators planting

Key Messages

- ▶ Fires are more frequent, more destructive and fire season start earlier in rural Alberta
- ▶ Humans are main cause for fires in agriculture/acreages
- ▶ Understand basic principles of fires
- ▶ Remember 30/30 cross over rules - moisture below 30 % and wind higher than 30 km/h
- ▶ Fuel, weather and topography are the most important factors
- ▶ Perform FireSmart for your farm/acreages
- ▶ Consider plant less flammable trees (mostly coniferous)
- ▶ Be conscious and careful no start fire during high fire season
- ▶ Use so many available resources

Tomahawk wildfire west of Parkland County causing flare-ups, resident concern

By Morgan Black - Global News
Posted July 3, 2021 6:00 am



Water bombers over Tenya Dirk's property on July 1 in Tomahawk. Courtesy: Tenya Dirk

The Current

2 months after Lytton, B.C., was destroyed by fire, its future is still unclear



As rebuilding plans begin before some residents have even been allowed back, many feel stuck in limbo

CBC Radio - Posted: Sep 13, 2021 3:22 PM ET | Last Updated: September 13



Alberta crews continue to battle out-of-control wildfire in Yellowhead County

By Slav Kornik - Global News
Posted June 23, 2021 12:07 pm - Updated June 24, 2021 6:39 pm



Yellowhead County residents who were forced to evacuate their homes on Tuesday due to a wildfire near Evansburg were allowed to return Wednesday night, but were told to be ready to leave again if need be. Sarah Komadine spent the day in the community west of Edmonton, where crews continued to battle the out-of-control forest fire - Jun 23, 2021

EDMONTON (News)

Ten years later: Five things to know about the Slave Lake wildfire

Corrie Derwatz
The Canadian Press Staff
Contact
Published Sunday, May 9, 2021 8:54AM EDT



Crews work to shut off gas and water in a burned-out neighbourhood in Slave Lake, Alta., on Wednesday, May 18, 2011. Almost all of Slave Lake's 2,000 residents fled Sunday to the face of a forest fire that eventually destroyed about a third of the town. (The Canadian Press/Teri Jackson)

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3 Oilers develop heart condition after COVID-19

Wildfires in southern Alberta contained after village evacuated



1 person transported to hospital in critical condition as a result of fire, RCMP says

Joel Dryden - CBC News - Posted: Mar 28, 2021 3:26 PM MT | Last Updated: March 28



This image, taken by Kyle Brittain of The Weather Network, shows smoke billowing in southern Alberta. A massive grass fire has forced the evacuation of the village of Carmangay. (Kyle Brittain/The Weather Network)

EDMONTON (News)

Dry conditions prompt over 40 fire bans or advisories in Alberta

Adam Lachlan - CTV News Edmonton's Digital Producer
@adam_lachlan | Contact
Published Thursday, April 8, 2021 3:02 PM EDT



As of April 8, 2021 there are 43 fire-use warnings, restrictions, or bans in Alberta. (Supplied Alberta Fire Bans)



MOST-WATCHED



Causes of wildfire



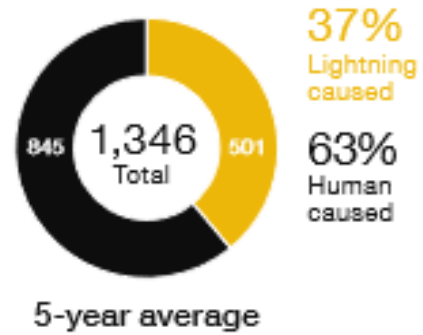
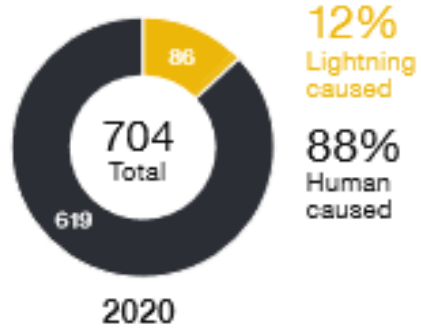
<https://climate.nasa.gov/news/2602/lightning-sparking-more-boreal-forest-fires/>



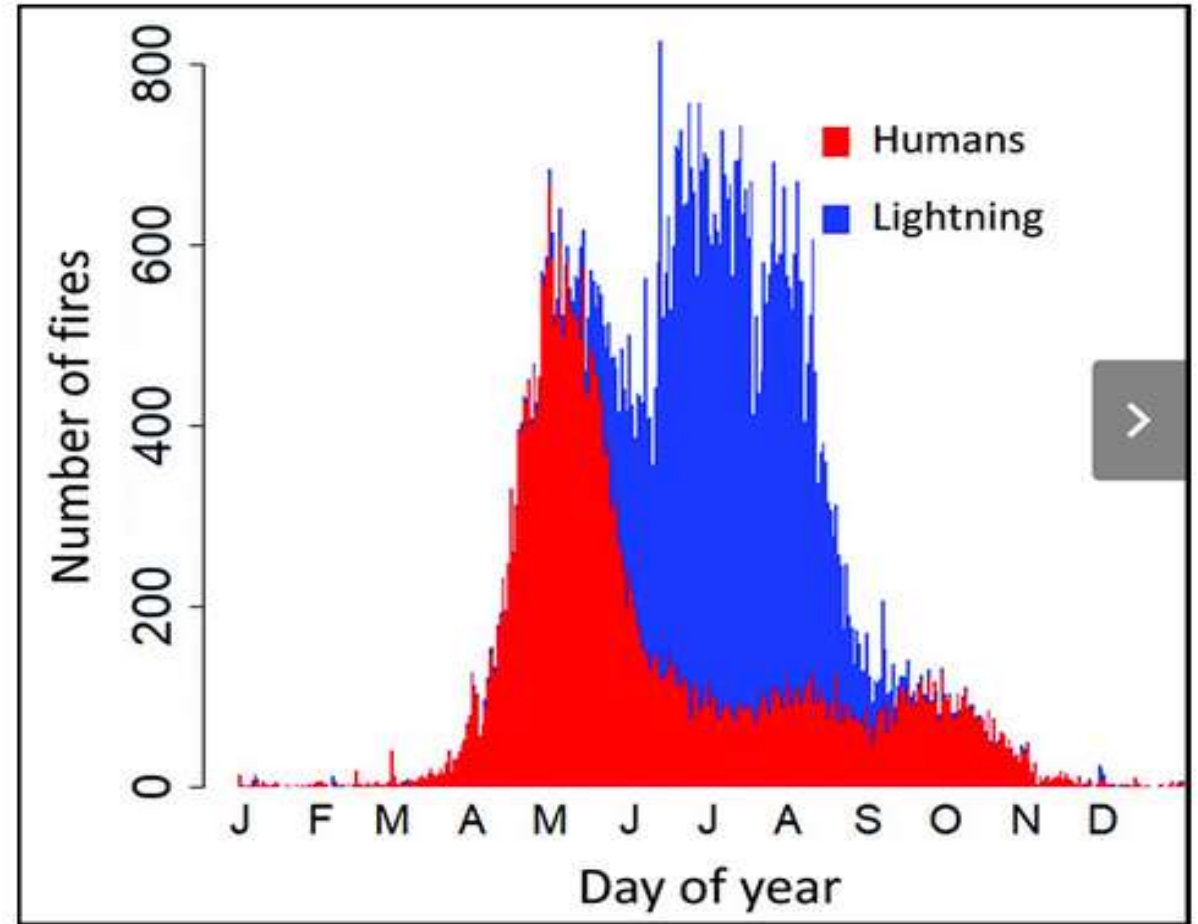
Causes of wildfires



704 wildfires



Top human causes



Stacked bar graph showing the number of new human- and lightning-caused fire occurrences (≥ 2 ha) for each day of the year from 1959 to 2018. Figure adapted from Coogan et al. 2020. (From "Fifty years of wildland fire science in Canada")

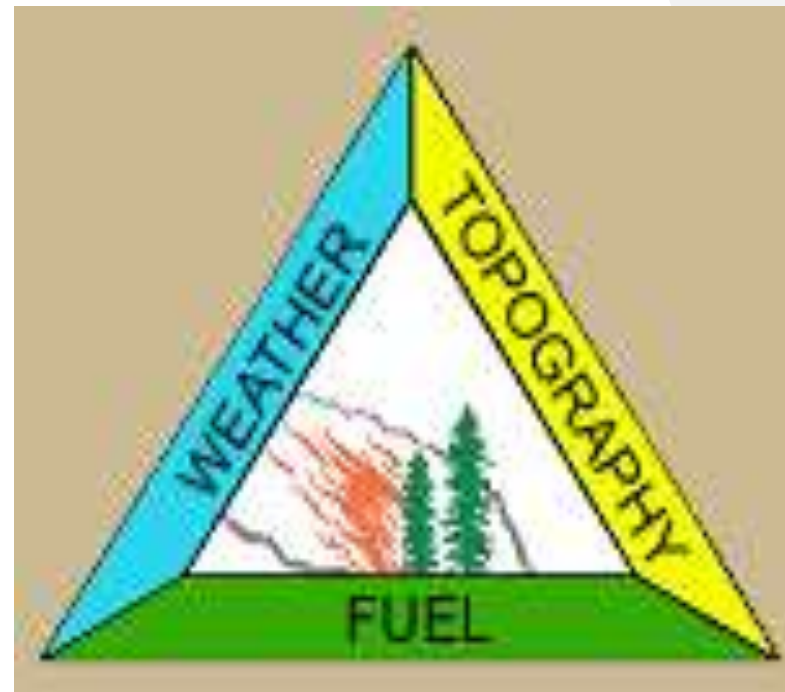
Wildfire Basics

The Fire Triangle



http://en.wikipedia.org/wiki/Fire_triangle

The Fire Behaviour Triangle



http://na.fs.fed.us/fire_poster/science_of_fire.htm

Fuel, Weather, Topography

- ▶ **Fuel** - moisture, size of fuel and distribution supply of fuel
 - ▶ Lower moisture higher flammability
 - ▶ Smaller grass, twigs, and branches ignite easily. Logs takes longer to ignite
 - ▶ Distribution of fuel supply - if it continues fire will extend or expand
- ▶ **Weather**
 - ▶ “ 30/30/30 cross” rules - if temperature is above 30, humidity below 30 and windspeed over 30 - **likelihood of fire is very high or extreme**
 - ▶ **Wind, Storm, Temperature, Moisture** -The fire can generate winds of its own that are up to 10 times faster than ambient wind
- ▶ **Topography**
 - ▶ Slope - fires move generally uphill faster
 - ▶ Aspect - northern slopes colder while south warmer
 - ▶ Terrain - narrow valley or canyon wind increases

EMBERS / SPARKS

- Embers are the burning debris that can be **thrown up to two kilometers** ahead of a wildfire.
- Sparks and embers can ignite materials on or near your home causing severe damage.



Source: Creator: Noah Berger | Credit: AP

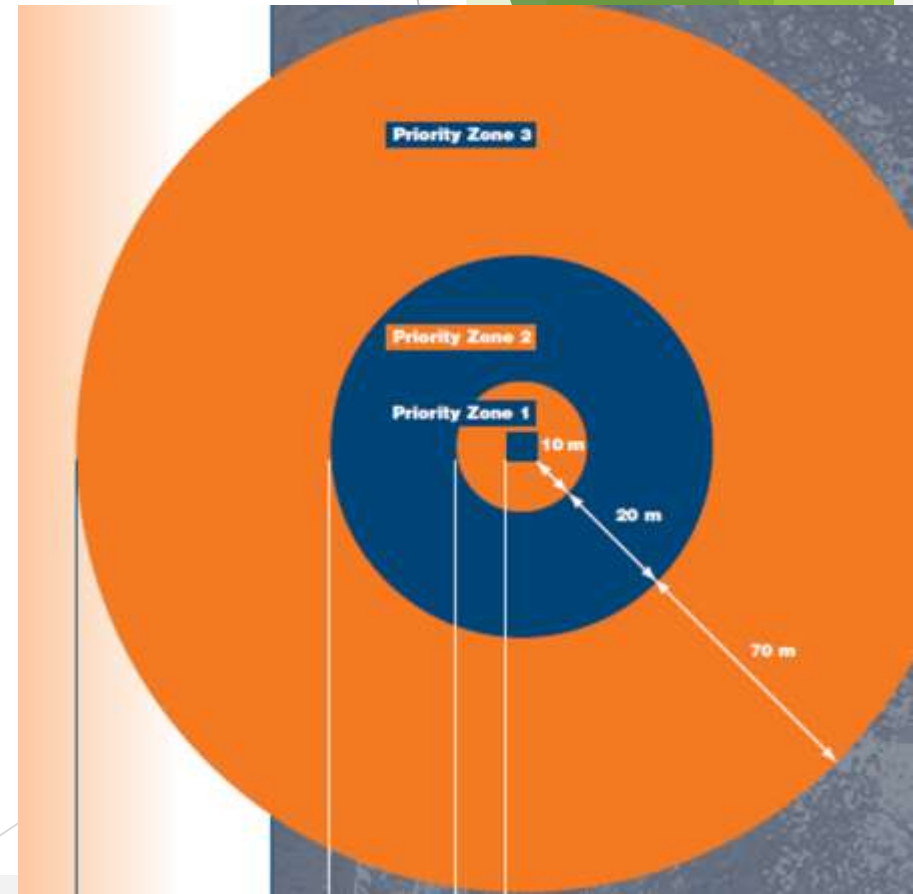
Prairie fires and shelterbelts

- ▶ The important function of shelterbelts and windbreaks is to slow down the fast moving and high intensity prairie fires
- ▶ A shelterbelt gives fire crews a better chance to combat the fire



What is Firesmart?

- ▶ Is a set of principles designed protect your property in the event of a wildfire.
- ▶ Two Strategies
 - ▶ Creating a structure that resists ignition in the event of wildfire.
 - ▶ Managing the fuels around your property to decrease fire intensity.
- ▶ Zone 1 - 0 to 10m from structure **MOST IMPORTANT ZONE**
- ▶ Zone 2 -10 to 30m from structure
- ▶ Zone 3 -30-100 m from Structure



Priority Zone 1

- ▶ It is 1-10 meters which is most important. Focusing on the structures themselves and the immediate area around the structures.
 - ▶ Building materials
 - ▶ Vegetation (Yard Maintenance)
 - ▶ Create “Defensible Space”



Protecting Structures

Roofing materials

Metal/Clay

Oil based products

Wood



Protecting structures

Building Exterior- Sidings



Superior fire resistance

Medium fire resistance

Least effective and little protection



Stucco, metal siding, brick/concrete and fibre cement siding



Logs and heavy wood



Vinyl and wood sidings

Protecting Structures

Gutter and Roof Cleanliness



<http://www.hotfrog.ca/Companies/Above-the-Rest-Permanent-Roofing-Systems/Metal-Roofing-61496>



http://www.bigbearcityfire.org/news_archives.php

Deck and debris



Remove debris easily ignited by sparks and embers.



Protecting Structures

The 10m zone

- ▶ Vegetation management within 10m of the structures



Priority Zone 2

- ▶ The 10 - 30 m zone from structures
 - ▶ Mostly vegetation management that will reduce fire intensity as it approaches the structures.
 - ▶ Both overstory and understory vegetation control
 - ▶ In the overstory crown thinning to reduce the available fuel to crown fires and help bring the fire down to a surface fire
 - ▶ Understory vegetation is controlled to eliminate ladder fuels and reduce fire intensity on the ground.



Pruning and removing trees

High fuel fire hazard



Pruning



Tree and shrub species - Fire resistance

- ▶ Highly resistant trees/shrubs are water loving species with moist, supple leaves, little dead wood no sap or resin material
- ▶ **Low flammable tree species (water loving species):** Willows, Poplars, Aspen, elm, black ash, maples, and birch
- ▶ **Low flammable shrub species:** red-osier dogwood, shrubby willows, alders, chokecherry, pin cherry, raspberry and roses
- ▶ **Highly flammable tree species:** White spruce, black spruce, Jack pine, Lodgepole pine, Engelman spruce, cedars, junipers, larch, Scotch pine, fir and Douglas fir and Russian olive,
- ▶ **Highly flammable shrub species:** Mugo pine, caragana, fragrant sumac, buffaloberry, wolfberry,

Priority zone 3 - Vegetation Management

High Fire Hazard

FireSmart



High amount of dead logs, tops, branches, and twigs

Be Prepared

▶ Evacuation plan

- ▶ Know how to get out, what your taking with you.
- ▶ Give yourself time and stay informed on the fire situation
- ▶ Have multiple routes
- ▶ Can you get out while firefighters come in

▶ Enough space

- ▶ Wide enough roads, ability for machinery to work on your property.
- ▶ Can you get out while equipment is coming in
- ▶ Can fire personnel operate around your structure to protect all sides

▶ Enough water

- ▶ Fire operations use lots of water make sure you can supply it.



Preventing Wildfires

- ▶ Fire Permits (Early Fire Season this year)
- ▶ Screens on Burning Barrels
- ▶ Equipment Maintenance
- ▶ Be aware of fire conditions
 - ▶ Fire Bans (County, provincial)



Tips to prevent fire on farm/forest

- ▶ Remove interior dead branches as they would be the first to catch flames
- ▶ Do not prune trees or shrubs during strong winds and low air moisture
- ▶ Avoid using power tools like chainsaws during dry weather conditions as a spark can ignite fire
- ▶ Call your utility company to remove branches or tops close to powerlines
- ▶ Clean woody debris and combustible shrubs from the ground
- ▶ Avoid planting flammable trees next to your house, barn or any sheds.
- ▶ **Develop the trail to have an access in various part of your woodlot**
- ▶ Develop an observation routine especially during periods of high fire danger, after lightning storms
- ▶ Have a equipment ready during fire season

Resources

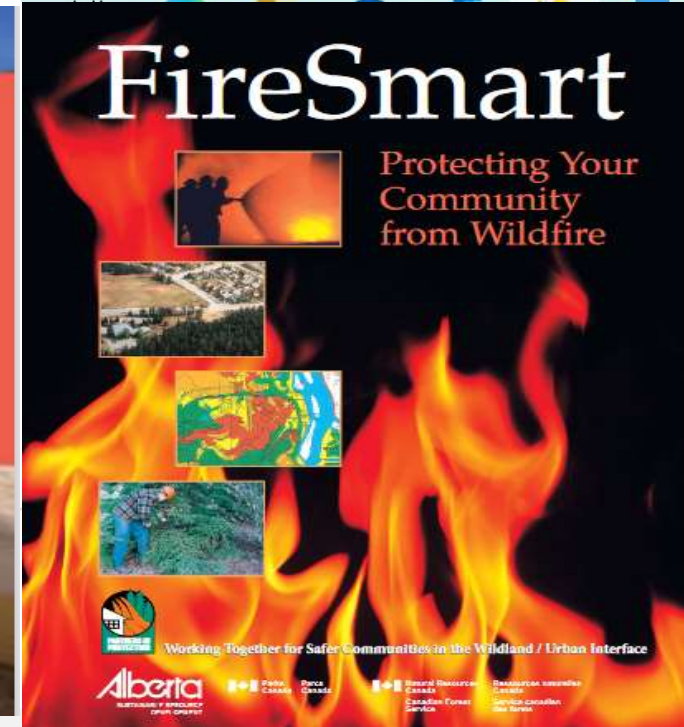
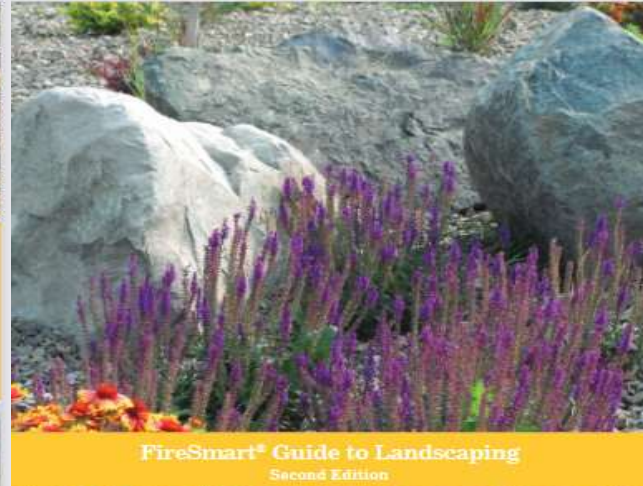
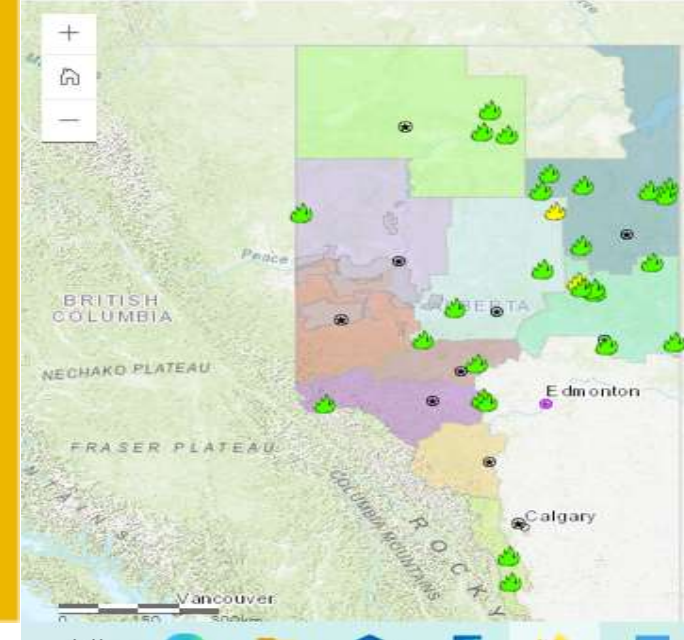
Report a Wildfire

Toll Free: 310-FIRE (3473)

- ▶ Alberta Agriculture and Forestry
- ▶ Municipal Fire Departments
- ▶ Firesmart Canada



Status Map



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- ▶ Be conscious and careful no start fire during high fire season
- ▶ Use so many available resources about Fire Smart and Fire



Thank You

Blog:

<https://yardwhispers.ca/blog/>

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