

BRITISH COLUMBIA IS IN FOR A FIERY FUTURE

HOW CLIMATE CHANGE IS IMPACTING WILDFIRES IN BRITISH COLUMBIA AND OUR FUTURE.

BY VANESSA FARNSWORTH

Where there's smoke, there's fire, the saying goes. And in British Columbia, it could be said, where there's fire, there's more fire. In fact, following back-to-back devastating wildfire seasons in 2017 and 2018, many British Columbians have started to ask an important question: Is this the beginning of a future filled with smoke and fire?

Megan Kirchmeier-Young, a research scientist with Environment and Climate Change Canada, headed up a study that took a hard look at the record-shattering 2017 wildfire season in British Columbia, a season that saw 3 million acres go up in flames and displaced roughly 65,000 B.C. residents. Although that year started innocuously enough with

a soggy spring and below-average fire activity, by summer things had taken a turn for the disastrous when a combination of factors—including widespread thunderstorms in early July, a prolonged drought and atypically high temperatures—resulted in a dramatic spike in wildfires that at their peak ensnared 4,700 firefighters and spawned a previously unimaginable 70-day provincial state of emergency.

In the aftermath of the 2017 fire season, Kirchmeier-Young and her team set out to determine what role human-caused climate change played in the events of 2017. They found that it had a significant influence on the high temperatures, increased wildfire risk, and breathtaking amount of land that was burned in large part due to our ongoing emissions of greenhouse gases, most notably carbon dioxide. And that doesn't bode well for the future.

"There are lots of factors that can play a role in any particular fire or any particular fire season, but with climate change, with increasing temperature, we will continue to see an increased risk of wildfires," Kirchmeier-Young says. "And so extreme events like what B.C. saw in 2017 are becoming more likely to occur."

Ken Lertzman, a forest ecologist with the School of Resource and Environmental Management at Simon Fraser University, cautiously



Don Mortimer takes residents on a tour of the Kirkup neighbourhood in Rossland, British Columbia, as he does informal hazard assessments on neighbourhood homes.

agrees. "It's difficult to impossible to say whether any given weather event or any given fire event is specifically caused by climate change. What we can say without a doubt is that the kinds of weather conditions and the kinds of fires that we've been seeing over the last couple of years are exactly what is predicted by the data and models for climate change," he says, alluding to the extreme high temperatures and

droughts that led to massive tracts of B.C. wild lands to burn.

It's something that many scientists predicted would happen and that Kirchmeier-Young's study confirmed actually did happen during the 2017 B.C. wildfire season. "Overall, I think most experts in the field are pretty comfortable with the notion that the fires we've been seeing in B.C. over the last few years have climate change as at least a major contributing factor," she says. "It's a combination of climate change, idiosyncratic weather conditions of a particular year, and the kinds of fuel conditions on the landscape that all lead to a perfect storm for those kinds of events."

With temperatures in B.C. projected to rise by as much as 2.7°C over the next 30 years and the frequency of extreme wildfire events like those seen in 2017 and 2018 expected to increase, British

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Columbians may well wonder if there is anything they can do to mitigate their wildfire risk.

According to Don Mortimer, there is. An interface fire protection specialist based in Rossland, British Columbia, Mortimer has more than 35 years of fire suppression and management experience. He is also the national coordinator for the FireSmart Canada community recognition program and has trained more than 800 fire professionals across Canada to work as local FireSmart representatives in communities that are vulnerable to interface fires, which can spread rapidly from forests to the towns and cities in their path.

“The main thing to know about wildfires is that they are not as overwhelming or as overpoweringly difficult to deal with as you might think,” Mortimer says. “Structure loss can occur with either big or small wildfires, but when you lose a structure to wildfire, it means one thing and one thing only: The structure and the vegetation around it did not comply with FireSmart guidelines.”

Those guidelines help vulnerable communities prepare for inevitable wildfires by assisting them in identifying wildfire hazards and risks, engaging community stakeholders, and developing a long-term mitigation and prevention plan that is

implemented and maintained by the community as well as individuals.

“When dealing with any hazard, you don’t go out in the middle of the landscape and start working on it there,” Mortimer says. “You start in your communities. They’re what you want to protect. So we start there with FireSmart, and that means we start on the homes, on the decks, in the backyards and then subsequently work outwards.”

This approach means that individual homeowners play a vital role in a community’s FireSmart strategy. Instead of living in constant anxiety over the possibility that a wildfire might one day threaten their properties,



ANIMAL RESCUES IN WILDFIRES

When disaster strikes and evacuation orders are issued, animals are often left behind. Residents can be forced to make difficult decisions when pets or livestock can’t be transported to safety. Luckily, there are people and organizations who step up to help animals trapped behind evacuation lines.

First responders often provide initial support feeding and giving water to abandoned animals. Animal rescue groups, such as local SPCA chapters or the volunteer-based Canadian Disaster Animal Response Team (CDART), are then called in to rescue and evacuate animals. These organizations also often provide emergency shelter or fostering, as well as services to help reunite animals with their owners. Rescued animals include domesticated pets, farm animals and exotic pets such as the red tail python that the BC SPCA helped care for during the 2017 B.C. wildfires.

During recent wildfires, the emergence of good Samaritans has been notable on the animal rescue front. Facebook groups, including one with thousands of members called BC and Alberta Emergency Livestock and Animal Evacuation Group, have popped up to help owners reunite with animals left behind. Online groups also exist to connect those in need of temporary shelter for their animals, with people offering up their homes or farms.

The airline industry found a unique way to help during the 2016 fires in Fort McMurray, Alberta. During the evacuations, WestJet and Canadian North lifted their stringent restrictions on travelling with pets and instead allowed pets to travel with their owners in the main cabin without carriers or kennels. PNPC Animal Rescue also offers flights to animals in need, coordinating free or low-cost flights to transport animals so that no animal has to be left behind. For more info, visit spca.bc.ca, cdart.org and pnpcanimalrescue.ca. – *Catalina Margulis*

homeowners can be proactive in identifying which wildfire risks and hazards are on their own properties and, importantly, which are not.

“A lot of people misapprehend where their risk is—they think it’s bigger than it is or they think it’s coming from the wrong things,” Mortimer says. “So we’ve made an assessment tool by which each person can assess their own hazard and then prioritize the elimination of that hazard.”

Eliminating hazards is often much easier than people think. Something as simple as replacing the conifers close to the homes with deciduous plants or removing bark chips from gardens adjacent to structures can significantly reduce fire risk if embers from an approaching wildfire rain down on a property.

In general, Mortimer would like to see a shift away from the mindset that fire suppression is the way to deal with a wildfire, and instead look at fire prevention as an important tool in the reduction of wildfire risks.

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“With wildfire, we often perceive the problem to be a lack of better response and we throw more money at response—more firefighters, more tankers,” Mortimer says. “We’ve got to stop throwing money at response and start throwing money at prevention.”

On a much larger scale, reducing the rates at which we are pumping carbon dioxide into the atmosphere is something climate scientists fairly universally agree will slow the rate at which temperatures are rising.



Signage for the FireSmart Awareness workshop held in Kirkup last summer, when residents learned about FireSmart’s community recognition program, along with the basics of wildfire hazard assessment and mitigation.

“What we do going forward in terms of emissions will have a very big impact on what we see in terms of temperature trends into the future,” says Kirchmeier-Young. “So we do have some control over our future state, but we have to make some choices.”

And there are other things we can do to address the mounting carbon dioxide/rising temperature/

B.C. makes it clear that it’s already exerting a strong influence on the province’s wildfire risk.

“People need to accept that this isn’t something that we’ll just see in the future—this is something that is impacting our lives already,” says Lertzman. “We really need to mobilize as a society to think about what we can do about mitigating climate change but also what our strategies are for adaptation—whether it’s FireSmart programs for homes on the rural interface in the B.C. Interior, trying to maintain resilience in forests, or putting in place more robust emergency response systems for rural communities.”

With the problem clearly defined and mitigation options available, British Columbians might not need to fear a fiery future right now. By taking decisive action on a personal, community and global level, they can adapt to the new reality and reduce their wildfire risks in the years to come. It’s a lesson all Canadians will need to learn as climate change increases wildfire risk to forests and communities nationwide. **H**

increasing wildfires problem. “Protecting the high-carbon forests that we already have is one clear option, and doing a better job of growing forests that sequester carbon is another,” says Lertzman. “Growing forest is one of the few things we can do in the world that will actually take a globally meaningful amount of carbon out of the atmosphere.”

Although we tend to think of climate change in terms of its future impacts, the escalating situation in