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The dangers of a forest next door FORT McMURRAY BLAZE COULD BE A 'NEW NORMAL,' PROFESSOR WARNS

Lori Daniels has a sobering message for Canadians living close to the forest, especially those in large communities, which by design or just chance are surrounded by trees.



BRENT LEWIN / BLOOMBERG NEWS This 2013 aerial view of a Fort McMurray subdivision shows how little room there is between the dense forest and a residential neighbourhood.

"It's not if, it's when" the next wildfire threatens to incinerate an entire urban neighbourhood, says Daniels, an associate professor at the University of British Columbia's Department of Forest and Conservation Sciences.

The wildfire that overcame Fort McMurray and destroyed 2,400 houses and other buildings was not a freakish anomaly, says Daniels. There will be more of its kind, other "urban interface" fires that cross poorly defended or non-existent boundaries and wreak havoc and destruction, right where we live.

She worries that most Canadians vulnerable to wildfire aren't fully aware of the threat or taking it seriously.

"Fort McMurray has really focused the public's attention," says Daniels. "I'm very concerned for other communities, especially in Western Canada. I'm concerned they're not prepared."

Daniels isn't some alarmist academic, a lone voice in the wilderness predicting doom. She studies forest dynamics and human impacts on forests. She and her colleagues have seen, time and again, that "lessons learned" after a wildfire are soon forgotten. Vigilance weakens, even in communities that have experienced a cataclysmic blaze. Mistakes are repeated.

"People tend to think it won't happen again, that it's a once-ina-lifetime event," Daniels says. There's "an urgency for communities and homeowners to get involved" in fire-safe programs, she adds, and to take an interest in forest and wildlife management. Because, she says, "what we think is (an) extreme (fire event) today will be the new normal in 20 or 30 years."

Canadians know how to safely and efficiently evacuate the scene of a wildfire. In Fort McMurray, close to 90,000 left in vehicles, in two directions on a single highway, in about 24 hours. There were two related fatalities, resulting from a car crash.

Evacuations proceeded without incident during the 2011 wildfire in Slave Lake, Alta.; the blaze forced 7,000 people from their homes. During the summer of intense wildfires in B.C.'s southern interior 13 years ago, 45,000 people fled their homes. There were no civilian casualties.

After every event, residents were praised for their calm demeanour and behaviour.



But the wildfires demonstrated the vulnerability of entire communities, and that collective understanding and will are lacking

'If we're going to live and work next to the forest, we'd better be wiser'

Simple measures could have prevented or slowed the spread of the Fort McMurray fire, had they been implemented.

Almost the entire Beacon Hill subdivision that lost an estimated 80 per cent of its 800 homes was built inside a highly flammable boreal forest, with just a thin buffer zone between fuel-heavy spruce trees and wood-frame houses.

It's no accident that major pieces of public infrastructure and oilsands facilities were spared: They're set back from tree lines and they're built with fire-retardant materials. Some have their own firefighting resources, as well.

Inexplicably, Canada is not an especially fire-safe country, despite its forest cultures, industries and history of catastrophes. Strategies developed after events such as the 2003 fires in B.C. need to be better funded and observed, communities need to be better planned and built, and individual homeowners must finally take matters to heart, says David Andison, a landscape ecologist and adjunct professor at UBC.

"We're our own worst enemies, sometimes. If we're going to live and work next to the forest, we'd better be wiser and more humble about it," Andison says. Don't think that nature will co-operate: "Stopping forest fires from happening is just not on the program," he says.

In forests that host urban settlements and individual homes, fuels — trees, brush, dead branches, other flammable debris on the forest floor — must be gathered, cleared and/or thinned.

Tree canopies must be opened overhead, so that in the event of an interface blaze, firefighters can effectively douse flames and smouldering embers from the air.

"We've got to give our firefighters a fighting chance," Andison says.

Those are the basics, repeated in official reviews and reports following every major interface wildfire. Yet in heavily forested, fire-prone provinces such as B.C., fuel loads remain dangerously high.

Daniels and her colleagues have identified about 650,000 hectares of B.C. forest with "very high" fuel hazards. Despite long-standing recommendations to reduce the threat, she says, only about 10 per cent of the area has been "treated," with debris cleared and trees thinned.

Treating the forest requires manpower and money, between \$5,000 and \$10,000 a hectare. Compared with the billions of dollars in property and public infrastructure lost across northeastern Alberta in the last eight days — not to mention the heavy emotional toll — it's a small price to pay.