

On the cover



A tree planter in Woss, B.C., traverses over rugged terrain. If he gets injured at work, the emergency response plan will be the roadmap for first aid and evacuation.

When wildfires strike, will you be ready?

By Gail Johnson



Jim Logan and Greg Mancuso of Folklore Contracting had to evacuate a large crew during the Little Bobtail Lake fire of 2015. Pre-established escape routes, and a check-in and buddy system, helped them evacuate camp twice, as the fire continued to spread.

Forcing one of the largest mass evacuations in Canadian history, the 2016 wildfire in Fort McMurray showed the astonishing speed at which flames can spread, and the damage they can cause. While that disaster was extreme, forest fires are a common occurrence every summer. They may be far smaller in scale than the one that ravaged Alberta, but fires can threaten workers on the ground, sometimes requiring swift evacuations to save lives.

Jason Krueger knows first-hand what it's like to have to get people to safety from deep in the bush when flames and smoke are approaching. He's the general manager of Summit Reforestation and Forest Management Ltd., which, during peak season, employs about 320 tree planters every year. In the summer of 2015, a crew of about 55 had to get out of harm's way in a hurry after a bolt of lightning triggered a blaze.

"It got really big really fast," says Krueger. While his planters were given 20 minutes to gather what they could before evacuating, the focus was on people, not things. "As expensive as it is, you can always replace stuff," he adds. "Making a decision to get people out quickly is how we run."

Determining when and how to evacuate silviculture and forestry workers, however, is hardly straightforward. Crews are typically based in remote locations, and workers are usually spread out. It can be challenging to establish more than one escape route given the rugged, hard-to-reach landscapes where the work takes place. And fires can grow in size and intensity, and suddenly shift direction without warning.

"If you're in the wind direction of a fire, you know it; it's unbearably smokey," Krueger says. "But knowing how far away that fire is or how fast it's moving is often very difficult.

"We work hard to set up multiple routes out of camp, but sometimes logging roads into the bush are just there and back," he adds. "My biggest fear is getting caught in a situation like that, where you're forced to go

“We’re out there, exposed and vulnerable. We have 6,000 workers all over B.C. doing a range of activities in small clusters and in large camps that move around the landscape ... Each situation has particular conditions that need to be addressed independently.”

—John Betts, Western Forestry Contractor’s Association executive director

out in the direction of the fire. I’ve never heard of it happening, but that’s the ultimate worst-case scenario.”

A common occurrence

Planning for a fire or other emergency situation — such as a flood, earthquake, landslide, or fire — requires a risk assessment of the worksite and camp, and a realistic, and tested, emergency response plan (ERP). When it comes to forest fires, part of assessing the risk means understanding the environment your workers are in.

John Betts, executive director of the Western Forestry Contractors’ Association (a merger of the Society of Consulting Foresters of B.C. and the Western Silviculture Contractors Association), says that several factors have ignited widespread and growing concern regarding wildfires. Climate change is one; the pine-beetle epidemic is another. (Dying, dead, and dry trees need merely a spark to set them ablaze.)

According to stats from the BC Wildfire Service, B.C.’s forests and wildlands cover over 94 million hectares, with approximately 2,000 wildfires occurring each year. Most are contained within 24 hours, but those that aren’t pose obvious and immediate danger to anyone nearby. May 2016 was an especially difficult month in B.C.: The Canadian Press reported 85 wildfires were burning that month alone, while five evacuation alerts were ordered.

“Fires can surprise us by coming in with great ferocity in what seem like unlikely parts of the province. There

are conditions in the forest these days that can lead to catastrophic and rapidly spreading wildfires across landscapes in ways we have not seen,” says Betts.

“Our problem is we’re out there, exposed and vulnerable. We have 6,000 workers all over B.C. doing a range of activities in small clusters and in large camps that move around the landscape. They may not be overly familiar with where they are, and it may be the first time they’ve done a [silviculture] contract in that area. Each situation has particular conditions that need to be addressed independently.”

Preparing for evacuation

As the area coordinators for silviculture company Folklore Contracting, Jim Logan and Greg Mancuso had to evacuate a large crew during the Little Bobtail Lake fire of 2015. By the time it was extinguished, the blaze destroyed about 25,000 hectares of land southwest of Prince George. In its early stages, planters noticed a smoke plume on their way back to camp after a day off, but at the time the fire was under



The silviculture sector generates a high volume of serious injuries and is included in the WorkSafeBC 2017 Forestry High Risk strategy.

“Wildfire evacuation is not so uncommon or rare that people should put it into the category of ‘I never saw it coming.’ The possibility of this happening is high enough that people ought to be planning for it.”

—Tom Pawlowski, WorkSafeBC manager, Industry and Labour Services



Emergency response plans cover more than just the risks of wildfire. The WorkSafeBC video “Every Minute Counts” helps workers understand the challenges of emergency response in forestry operations.

control, according to the provincial fire reporting hotline. So they headed out planting the next day.

“We continued to work because it was still under control — and then it just wasn’t under control,” Logan says. That’s when they set their ERP into motion. “We evacuated the first site within 12 hours,” he adds.

The team packed up camp and left that night, moving about 50 kilometres away to an area that appeared safe — and then they had to do it all over again. “When a fire really takes off in pine trees, because of the pine beetle, and when there’s any wind, there’s just a massive amount of damage,” Mancuso says. “When the fire really spread quickly and got a lot bigger, they were getting smoked out.”

With its ERP procedures in effect, crews had established escape routes in advance, and Logan and Mancuso had been in touch with helicopter companies as a potential backup. (Choppers don’t fly in dense smoke, however, so evacuation by air is never a guarantee.) “We have a buddy system; planters are assigned a buddy, and if there are instances where they’re by themselves, there’s a check-in system,” Logan says. “You have to have all of that figured out, and you have to know a couple of ways to get out.”

Folklore Contracting’s check-in and buddy system is one way for supervisors to get the message out to workers that it’s time to clear out. But knowing when to make that call comes from a strong understanding of the dangers and a pre-planned strategy for evacuation.

“Employers who work in forestry in remote locations need to really think hard about their emergency response plans,” says Tom Pawlowski, WorkSafeBC manager of Industry and Labour Services. “You don’t have anybody to help you out there too much; you’re kind of on your own.”

“Wildfire evacuation is not so uncommon or rare that people should put it into the category of ‘I never saw it coming.’ The possibility of this happening is high enough that people ought to be planning for it.”

Drafting evacuation plans alone isn’t enough. And communicating those plans to workers is just the starting point.

“Emergency response planning should be very comprehensive, and there should be an expectation that workers will be able to be evacuated promptly and properly,” says Lisa Houle, WorkSafeBC industry specialist for forestry. Part of the process is practising and testing the plan on site, adds Houle. “Evacuation plans all have to be practised. When you practise your plan, you determine what works and what doesn’t.”

The Wildfire Evacuation Planning Checklist

To help employers respond quickly and effectively to threatening forest fires, WorkSafeBC offers several resources. One is a Wildfire Evacuation Planning checklist. Among the points:

- Do you have reliable two-way communication equipment available to ensure workers can be reached at all times?
- Do you keep an up-to-date list of all workers, and have it easily available? Do you know the location of all of your workers, at all times? They might include camp cooks, mechanics, people travelling to and from town, etc.
- Do workers know what to bring with them and what to leave behind? This might vary depending on how much time there is, and if they are leaving from a worksite or a camp.
- What vehicles are used in an evacuation and what are the driving arrangements? Make sure everyone has a designated seat.
- After an evacuation, how will you account for everyone, and what is your communication plan?

“We have a buddy system; planters are assigned a buddy, and if there are instances where they’re by themselves, there’s a check-in system.”

—Jim Logan, Folklore Contracting planting coordinator on tackling the issue of workers in isolated areas

For more information

Emergency response planning (ERP) has been identified as a critical aspect of WorkSafeBC’s Forestry High Risk Strategy, but there are many other risks that need to be considered. Our website, worksafebc.com, offers tools, publications, regulations, and other resources for emergency response planning, health and safety in silviculture, and details of the High Risk Strategy. These resources include:

- [Emergency Response Planning: 12 Tips for an Effective Emergency Response Plan](#)
- [Every Minute Counts: Emergency Response Planning in Forestry](#) video and discussion guide
- [The 2017 Forestry High Risk Strategy](#) web page
- The [Assessing Risks](#) web page 🗨️



WorkSafeBC forestry industry specialist, Lisa Houle surveys a forestry worksite in Beaver Cove, B.C.