



SAFETY ALERT

OF THE MONTH

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Wildfire Hazards: Fire Behaviour

AOM# 2020-08-31

This series of safety alerts for May, June and August is intended for all workers, both forestry workers and fire crews, responding to fires and highlights hazards that exist in a wildfire environment.

Fire behaviour can range from a smoldering ground-fire to a fast-moving flame-front that can quickly pose a threat to workers on the ground. Working safely around wildfire requires workers to make appropriate decisions on what to do when confronted with different types of fire behaviour, or different potentials for fire behaviour.

In many cases it is obvious when a fire is dangerous. A fast-moving fire burning aggressively through the treetops makes it easy to decide to stay away. However, it is much harder to determine whether an area that currently is not burning (or is not burning aggressively) poses a threat to workers. Fire behaviour can increase very quickly to a point where it puts workers at risk and recognizing this can be difficult, even for experienced fire personnel.

Used extensively in the United States, the **18 Fire Watch-Out Situations** offer a list of situations that can become dangerous if proper precautions are not taken. If workers find themselves in any of these situations, they must re-evaluate what they are doing and their position on the fire using the [LACES](#) protocol addressed in a 2019 Safety Alert.

18 Fire Watch-Out Situations

1. Fire not scouted and sized up.
2. In country not seen in daylight.
3. Safety zones and escape routes not identified.
4. Unfamiliar with weather and local factors influencing fire behavior.
5. Uninformed on strategy, tactics, and hazards.
6. Instructions and assignments not clear.
7. No communication link with crew members or supervisor.
8. Constructing line without safe anchor point.
9. Building fireline downhill with fire below.
10. Attempting frontal assault on fire.
11. Unburned fuel between you and fire.
12. Cannot see main fire; not in contact with someone who can.
13. On a hillside where rolling material can ignite fuel below.
14. Weather becoming hotter and drier.
15. Wind increases and/or changes direction.
16. Getting frequent spot fires across line.
17. Terrain and fuels make escape to safety zones difficult.
18. Taking a nap near fireline.





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In addition to the **18 Fire Watch-Out Situations**, some additional tips for recognizing fire behaviour potential are:

- Pay attention to when and under what conditions the fire blew up on the previous day. Take regular weather readings and move into safe areas when conditions start to match previous blow up conditions.
- Ensure that all workers that may be expected to work around wildfires take the S-100 Basic Fire Suppression and Safety course.
- Become familiar with the [Canadian Forest Fire Danger Rating System](#) and its components.
- Conduct all wildfire work considering [LACES](#).



Additional Resources

- Canadian Wildland Fire Information System: cwfis.cfs.nrcan.gc.ca/home
- BC Wildfire Service Fire Danger Information: www2.gov.bc.ca/gov/content/safety/wildfire-status/wildfire-situation/fire-danger
- BC Wildfire Service Recognized S-100 Instructors list: www2.gov.bc.ca/gov/content/safety/wildfire-status/employment-and-contracts/employment/wildfire-fighters/s-100-instructors

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Disclaimer: We encourage the sharing of information that can help improve safety for all workers.



BC Forest Safety

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