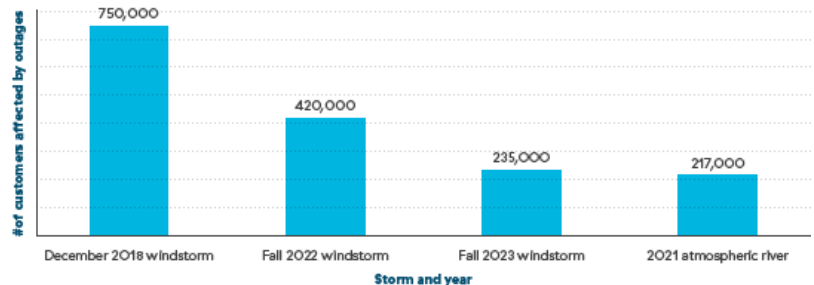




Ensuring Worker Safety During Wind Events

The frequency and magnitude of fall and winter storms characterized by heavy rainfall and high winds seem to be increasing. A recent BC Hydro survey finds that 3 in 5 British Columbians say the worst fall/winter storm they have ever experienced has been within the past 5 years. BC Hydro data shows that severe weather events in the last 3 to 5 years have led to some of the most damaging storms in BC Hydro’s history.



BC’s forest health aerial surveys show that the area of windthrown timber in 2021 (12,600+ ha) was 3 times the average over the last decade.

Wind events pose significant risks to people working on and traveling to and from woodlots and community forests. This bulletin provides licensees, managers and workers with guidance and resources they can use to plan and conduct operations that minimize risk of injury to workers during those events.

Understand the lay of the land

- It’s impossible to predict exactly where big winds will touch down. But history and topography may provide clues. What have you and other locals experienced? Is there evidence of recent or historic windthrow in or around your tenure? Which stands, sites and topographical features are most exposed to the usual flow of storm weather? Use that information to gain a macro-level sense of where risks are likely to be greatest.

Take advantage of proven tools

- BC researchers and foresters have developed high-quality windthrow risk assessment tools (see links to resources below). Use those tools to build a working-scale map showing relative windthrow risk.
- Use that knowledge to plan treatments (e.g., planting species, thinning density, harvest timing to limit canopy height differences) that can help reduce windthrow risk potential.

Be prepared

- Even if you haven’t been able to apply those treatments, use assessment results to understand where you and your crew shouldn’t be when there’s a storm on the way.
- Identify (or build) muster areas where there’s no risk of someone being struck by falling trees, or rocks dislodged by falling trees. Tell your crew about those areas. Identify them on the logging plan map.

- Equip vehicles with tools (e.g., power saw, tow strap) and train operators to deal with minor windthrow incidents that could prevent exit from an area.
- Avoid parking vehicles near hazardous trees or overhead hazards.
- As part of normal road inspections or when roads are re-activated, evaluate risks along routes crews will use to get to muster areas, and routes they will use if they must leave the area entirely. On both sides of those roads, identify and deal with trees that are at risk of toppling or breaking off in a storm.

Plan work accordingly

- Find a weather resource that provides reliable forecasts. Check forecasts and alerts daily, especially during storm season. If a storm *might* be on the way, watch the weather and be ready to respond. Use a weather app with radar imagery that shows how storms are tracking.
- Your best plan may be to suspend all work or some work types until the storm has passed. For example, layout crews, hand-fallers and tree planters are at greater risk than people in ROPS-equipped machines.
- Another option may be to move crews from moderate and high-risk areas to low-risk areas (based on your risk assessment / inventory).
- At your pre-work meeting, explain the plan and make sure everyone is clear.
- If the plan is to evacuate crews if the storm picks up, remind them they need to leave the bush before they're at risk. As a rule of thumb, manual crews should leave the bush if they see or hear trees falling or tops/branches breaking off.
- Have reliable communications. If you decide it's safe to keep working, increase check-in frequency. If you suspend work, check to make sure everyone arrives safely at the muster area.

After the storm

- Assess the area to determine if the wind has de-stabilized trees or rocks. Remove those risks and/or adjust your work plan before allowing crews to work in those areas. Crews working in windthrown areas must be properly trained and equipped for the higher risk work site conditions.
- Debrief after the event. What worked? What didn't? Use what you learn to be even better prepared for the next big wind event.

Resources

- [Introduction to Dangerous Trees on Forestry Worksites – The BC Forest Safety Council](#)
- [UBC FRST 557 Forest Operations Module Lecture 5c Windthrow](#)
- [BCTS Windthrow Management Standard Operating Procedure](#)
- [Windthrow Management Manual for Coastal British Columbia](#)
- [Silviculture and stand management training – Module 5.3 Windthrow](#)
- [BCFSC Safety Alert](#)