FTAC
SAFETY ALERT

Winter Falling Overhead Hazards – Ice Bombs

Date: November 17, 2026

During the winter months, heavy wet snow can build on the crown of the tree and freeze in place. Over multiple freeze–thaw–freeze cycles, these dense masses can grow to several hundred pounds. Changing temperatures or the slightest movement, such as wind or falling activities, can unload the ice bomb or it can fall with no warning.

An ice bomb may continue to grow with wind and/or snowfall until supporting branches or the stem break under the weight, a big wind event strips the crown, or the March–April thaw arrives. The hazard worsens as winter continues.

Effects of Wind on the Hazard

Wind or changing temperatures can release built-up snow and ice bombs. Rising or gusting wind moves the crown and causes snow-loaded trees to unload, creating whiteout conditions and/or dislodging heavy masses of snow and ice.

Usually Many Trees, Not Just One

When conditions form ice bombs, the entire stand may be affected. Assess the entire falling site. Loaded stems must be managed as dangerous trees. Never assume the rest of the site is clear.

In some stands, the ice and snow load can “limb-tie” a tree to the trees around it. This bridging of snow and ice can prevent the tree from falling and/or shake loose the overhead loads in the tree(s) it is tied to.

Other Hazards of Falling Ice Bomb Affected Trees in Winter Conditions

- **Whiteouts are an additional hazard.** A mass release of snow may cause a whiteout, inhibiting your ability to use your escape trail to reach safe cover.
- **Know which days carry which risk.** Whiteouts are more common on cooler days with light, fluffy snow in the canopy. Ice bombs are most likely to dislodge on their own, or with minimal disturbance, on warmer, sunny or rainy days in late winter and early spring. Both greatly elevate the risk to the faller.
- **Increased risk for barber chair.** The added weight of the load, especially on leaning trees, increases barber chair potential. Use the frozen wood and/or heavy learner SWP.
- **Limited freedom of movement.** Bulky winter clothing, bigger boots and snowshoes slow the faller down, potentially affecting the fallers mobility.
- **Weather and deep snow can create barriers to first aid.** Additional assessments and controls may be needed to ensure the effectiveness of the ERP.

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Recognize, Evaluate & Control

Recognize:

- What are the conditions that may create the hazard
- How to identify an ice bomb in a tree or a stand of trees
- Trees that are limb-tied (ice/snow-bound) to neighbouring trees
- How snow-loaded trees impact visibility and movement to safe cover
- Snow load creates added weight distribution to the tree

Evaluate:

- Importance of a pre-work site assessment before fallers begin work
- Priority of continuous site assessments as weather and site conditions change are ongoing throughout the day to ensure ERP and faller safety are not compromised
- Significance of monitoring the weather patterns in the area
- Importance of a proper 360-degree tree assessment
- Consider the risk for whiteouts
- Assess the ability to create multiple appropriate escape trails to adequate cover and whether falling will create a new overhead hazard over the spot you plan to escape to
- Whether specialized SWPs, such as Dangerous Tree, Frozen Wood or Heavy Leaner, and/or Limb Tied may be required

Control:

- Stop work if/when hazards and risk levels get compounded and appropriate safe work levels cannot be maintained
- **Elimination** means removing the fallers from the hazard. Relocate fallers to unloaded timber if your work area is unsafe for manual falling, or stand down until weather changes make the stand safe to work in
- Company specific SWP, acceptable to the Board, must be written and provided to workers
- Refer to all Danger Tree SWPs, the winter falling SWP, the Heavy Leaner and Frozen Wood SWP, and the Limb-tied (ice/snow-bound) trees: follow the limb-tied SWP. Qualified assistance **may** be required depending on the assessment
- Utilize qualified assistance and/or alternate falling means as required

Remember

- Shovelled tree wells must be limited to 45 cm at the tree base.
- Snowshoes and deep snow impact mobility and escape trail effectiveness.
- Consider alternate falling methods such as machine assist or no-work zones.

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STOP WORK AND REASSESS WHEN

- The crowns of the trees are snow-loaded across the falling area
- Qualified assistance or emergency response is impacted
- Wind or temperatures are rising
- Escape trails or safe cover are compromised



A classic "ice bomb" — a frozen mass on the crown, ready to drop from the slightest movement.

Planning and Managing the Work

- **Before the crew arrives:** the supervisor needs to walk the site to assess for ice/snow loading before scheduling work. Re-walk the work area after each snowfall or freeze–thaw cycle. Flag loaded ground, pick the falling method, document and brief the crew. Confirm the ERP, access/egress, first aid and qualified assistance work for winter conditions.
- **Daily and through the shift:** assess weather with wind as the primary factor and sequence lower-hazard trees first
- Recognize–Evaluate–Control as conditions change.
- Exercise the Right to Refuse Unsafe work as required.



Faller working on a snow loaded tree with the potential for whiteout.

Treat an ice-bomb-loaded tree as a **"dangerous tree"** and follow the applicable BC Faller Training Standard SWPs, which may also include Frozen Wood, Heavy Leaner and Limb Tied.

OHS REGULATION: Part 26.1 (dangerous tree including overhead conditions) | 26.2 (planning and conducting a forestry operation) | 26.23(2) (written SWPs, mechanical assistance, partner checks ½ hr) | 26.24 (two-tree-length clear area, escape route) | 26.26 (fell progressively into open areas) | 26.28 (qualified assistance readily available).