10 Winter Driving Tips for Log Haulers

1. DO YOUR TRUCK AND TRAILER PRE-TRIP
Did you do your pre-trip? Checking your vehicle before you drive could not only save your life, it could save the life other people. Before you drive away ask yourself four questtons: Did you check under the hood? Did you get in and check your gauges? Did you do a walk around of the enttre vehicle? Did you get in, slowly pull ahead to check your steering and breaks? These steps are crittcal to ensuring that you have a safe trip.

2. GET THE PRE-WORK INFORMATION YOU NEED
If you are going to a new area, talk to your supervisor to find out where you're headed, who else is hauling there, and what usual and unusual hazards you can expect to encounter. If your supervisor doesn't know, check with the forester, the dispatcher, or find another trucker on that haul and get the straight goods from them. Avoid the stress of guessing what you'll find. Think about your day. What will be the same? What will be different?

3. WEAR YOUR SEATBELT
Seatbelts save lives. If worn properly, your seatbelt will prevent you from being thrown around or out of your vehicle during a crash. Transport Canada reports that 93% of Canadians buckle up, the seven per cent who don't account for almost 40 per cent of the fatalittes of vehicle collisions. Seatbelts save about 1,000 lives a year, more could be saved if everyone buckled up.

4. PAY ATTENTION TO THE WEATHER
Check the forecast the night before. Knowing what you are likely to encounter puts you in control. If conditttons are challenging, reduce your stress by leaving a few minutes early, giving yourself ttme to drive at a casual pace, and according to road conditttons. Today is not the day to worry about making your cycle ttme.

5. PAY ATTENTION TO THE TEMPERATURE
When temperatures hover a few degrees either side of zero, conditttons get tricky. In areas where elevatton changes dramattcally, so can the conditttons and your tractton.

6. KEEP AN EYE ON THE GLAZE
Scan the road ahead of you and watch for shine in the tracks ahead – it's slippery out there! If you can't quite see it in your lane, briefly glance at the road in the oncoming lane, if it looks slick in their lane, it's probably slick in your lane.

7. SET YOUR EYES TO ACTIVE SCAN
As you drive, your environment changes, you must constantly refresh your view. Scan as far down the road as you can see. What do the things you see – road signs, traffic, intersecttons, wildlife, leaning tree, patch of ice, unusual features? Re-direct your gaze to the zone halfway between you and the next corner. What new informatton do you see that will cause you to adjust your speed, positton or plan? Check the mirrors every 7 or 8 seconds (conditttons permitting). Glance at the dashboard. Check the ditches. Repeat often, and with a few variattons.

8. HAVE A BACKUP PLAN
Think ahead – what will I do if...? What's my escape route? The vehicle coming over the hill looks a little skittish – what will I do if they get caught in the slush and pulled into my lane? That ditch on the right looks deep, so I better slack off and be ready for a quick stop, if necessary.

9. COMMUNICATE HAZARDS
If you see something that wasn't there yesterday, let your co-workers know. If you know there's a new person on your haul, tell them about that nasty frost heave at 17 km. If they don't know about it, and it results in a crash, it would be stressful for you too. You're all in this together.

10. DITCH THE DISTRACTIONS
Keep both hands on the wheel, focus on driving, and leave the gadgets alone! You can check your phone once you are parked.

Remembering Adrian Sunduk

On September 1, 2026, the forestry community lost one of its most respected log haulers. Adrian Sunduk passed away in Penticton, BC at the age of 77. Although retired when he passed, Adrian continued driving log trucks into his early seventies, doing the work he loved.



He began his career in the 90s and was one of the most respected log haulers in the industry. Many will remember him not only for his years behind the wheel, but also for his willingness to share his experiences to help keep others safe. Following a serious log truck rollover that could easily have claimed his life, Adrian became a strong advocate for wearing seat belts and used his personal story to remind us that even the most experienced drivers face risks, and that a simple decision to buckle up can make the difference between life and death.

The BC Forest Safety Council extends our deepest condolences to Adrian's family, friends and all those who had the privilege of knowing him. Rest easy, Adrian. You will be remembered for your dedication, your perseverance and your contribution to an industry you helped shape for more than half a century.

To read more about his life and celebrate his memory, click here view his obituary.

SAFEWOODS

Woodlot Licence & Community Forest Agreement Safety Committee

Safety Considerations for Forest Windthrow Salvage Operations

There has been a marked increase in damaging storm winds in British Columbia in the past few years. Fall and winter months are peak times for forest stand damage to occur. Storm winds and saturated soil conditions along with rain, snow and ice loading the forest canopy can lead to widespread forest damage including broken branches and tops, destabilized trees, and intermittent or catastrophic windthrow. In order to preserve the economics of the stand, rehabilitate and reforest the site, and prevent insect and disease outbreaks, forest salvage operations become a key forest management priority.

Drone plan view of catastrophic windstorm damage The primary focus must be on human safety and stabilizing the site before, during, and after timber recovery. Catastrophic windthrow salvage operations present unique hazards and require specific operational and safety considerations that may differ significantly from "normal" logging processes.



Drone plan view of catastrophic windstorm damage

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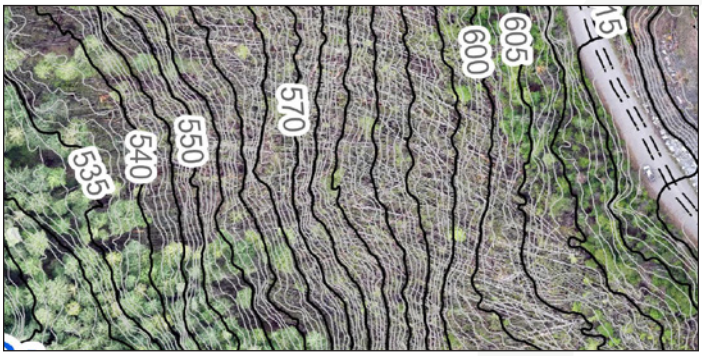
Pre-Planning and Safety Hazard Assessment:

Site Assessment and planning: Utilize the best planning tools available to assess and plan a salvage project. Drone imagery can help to assess windthrow configuration and direction, best access points and skid directions, and, to initially identify risks such as unstable groups of trees, rock formations, and challenging terrain issues before crews enter the site. Terrain hazards must be assessed by qualified professionals. Known and unknown terrain hazards can be created or affected by lack of root strength, more easily erodible soils due to windthrow site disturbance, and altered drainage patterns from windthown trees and root wads. In many cases, accessing the site on foot for field work activities is extremely difficult and may not be recommended due to stand instabilities, physical tree barriers and elevated windthrow. All of these challenges increase the value of remote drone work. If drones aren't available, aerial reconnaissance with a helicopter may be used.

Early collaboration: Engage with First Nations and other agencies early in the planning process to ensure important values are considered in the salvage plan, to determine any no-go areas and thus minimize major changes to the overall plan during salvage operations.

LIDAR: Use Lidar technology if available to develop accurate contours. Coupled with recent drone imagery this becomes a powerful tool in planning, as the density and direction of windthrow, and ground slope can easily be assessed.



1 metre contours derived from LIDAR

Georeferenced digital plans: These markedly improve operations and safety. Workers and supervisors can more easily track progress and identify hazards ahead of time, and communicate more effectively and efficiently.

Access and Disturbance: A good mapping base will help to optimize access planning and minimize overall ground disturbance.

Retention Areas: Be conservative when planning retention levels and areas as actual stand conditions can be more damaged and unstable than initial indications. If possible, strategically optimize retention patches on terrain types and areas that will not limit access to the stand. This will leave more options open to workers, improve safety, and may limit further damage to standing trees from operations.

Hazard Recognition and Training:

Trained Crews: Ensure all personnel working in windthrown areas are properly trained and equipped for the inherent high-risk conditions. Training should include danger tree recognition, working with compression and tension wood, specialized machine operation, minimizing post logging hazards and other working techniques that will allow salvage while minimizing further stand damage and hazards.

Reliable Communication: Maintain reliable communication systems and increase check-in frequency in hazardous conditions.

Danger Trees: Actively assess and reassess the stability of all potentially dangerous trees (snags, hung-up trees, those with suspect stability) in the work area. Remove danger trees concurrent with operations, or adjust the work plan to avoid them.

Fatigue and Complacency: Supervisors must closely monitor worker fatigue and complacency, as the unpredictable nature of windthrow increases critical decision making and risk. Effectively untangling and salvaging windthrow and trying to maintain reasonable merchantability of a damaged stand demands a lot of focus and patience.

Overhead Hazards: Constantly watch for overhead hazards such as loose limbs, tops, and danger trees.

Stable Footing and PPE: Elevated windthrow trees and loose bark will increase the chance of slips, trips and falls. Make sure cork boots are sharp and consider chin straps on hard hats in case of falls. Proper high visibility clothing is critical.

Maintain Distance: If you enter into a work area, never assume an equipment operator or ground worker is aware of your presence. Maintain a safe distance (at least two tree lengths) until definite contact is made and permission granted to proceed.

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Machinery and Procedures:

Mechanized Salvage Priority: Machine felling and bucking should be the first choice for removing windthrown trees. This can include using a feller buncher, teamed with a forestry excavator, or a forestry excavator with power grapple and blowdown saw. Having a grapple skidder or forwarder close at hand is usually necessary to skid away and eliminate snarls and hazards as they develop.

Choose larger machine sizes due to obstacles such as root wads, high stumps, broken logs, interlocked stems, and interspersed windthrown trees in standing timber. Heavy duty, well maintained, properly guarded equipment is required.



Typical windthrown stand – a puzzle to solve safely

Root wads: Bucked off root wads and unsalvageable logs and debris needs to be placed in a stable orientation concurrent with salvage operations to keep site workers safe afterwards. Stand root wads back up if possible. The goal is to stabilize the site and reduce hazards for those that follow, many of whom will be on foot.

Manual falling and bucking in windthrown stands is a much higher risk activity and must be done by specifically trained & assessed personnel with a qualified supervisor. The majority of the trees are loaded with compression or tension and will react suddenly and with extreme force when cut – unless these forces are reduced or removed by mechanized means first.

Butt skidding: Try to set a work direction from the butt ends of the windthrown trees if possible. This may require establishing new work headings as windthrow orientation changes across the stand.

Processing Location: Do only the absolute necessary work in the windthrow area; any further processing is probably safer out of the windthrow sites, such as at the landing or roadside.

Potential for phase congestion issues: This potential is higher in windthrow salvage as they typically demand more team work to untangle and harvest.

Payment method: Consider switching to an hourly rate instead of piece work to avoid a strict production mentality and to encourage safe practices.

On-going Weather Considerations:

Wind Conditions: Suspend operations and evacuate crews if wind speeds exceed safe thresholds or if stand stability is further compromised. There are various guidelines available however, if wind conditions are causing any further instability (blowing small limbs, any stand movement) it is a sign that operations should be suspended until conditions change.

Rain and Snow: Both further increase instabilities and must be considered in daily hazard assessment.

Post-Storm Assessment: After any significant wind event, reassess the area to determine if the wind has destabilized any remaining trees before resuming work.

References:

BC Hydro Storm Report

Extreme Wind Events and Planning for Worker Safety, BC Forest Safety Council, 2024

Wildlife / Dangerous Trees Awareness, Western Forest Products and Wildlife Tree Committee of BC, 2022

Dealing with Trees Damaged by Storms, Ministry of Primary Industries, NZ, 2013

Government of BC, Ministry of Forests, silviculture manual section 5.3 Windthrow considerations, operational planning

UBC Faculty of Forestry, Forestry 557

Introduction to Dangerous Trees on Forestry Worksites - The BC Forest Safety Council

Part 26 - Occupational Health and Safety Regulation

Faller Training and Certification, BC Forest Safety Council

Navigating the Stand: Safety in Partial Cutting and Commercial Thinning

For tenure holders, partial cutting and commercial thinning are excellent silvicultural tools for improving stand health and generating intermediate revenue. However, operating ground-based harvesting equipment around residual standing timber fundamentally changes the site's hazard profile compared to clearcutting.

Leaving trees standing increases the risk of overhead hazards, complicates machine maneuverability, and makes manual falling significantly more dangerous. Under WorkSafeBC's Occupational Health and Safety Regulation (OHSR) Part 26 (Forestry Operations), operators must take specific precautions to manage these risks.

Part 1: Integrating Safety into Operational Planning and Layout

Licensees and contractors hold the responsibility to identify risks unique to partial cutting systems. Ensuring worker safety means integrating management objectives with operational activities, both in the office and in the field. Operational plans should avoid being overly restrictive to provide flexibility, emphasizing clear objectives so workers can safely apply their expertise during field verification, layout, engineering, and harvesting.

Key Site Assessment & Hazard Identification

When assessing a site for partial cutting, planners must evaluate landscape-level objectives and on-the-ground realities:

- Identify hazardous areas, including unstable class IV/V slopes, floodplains, rock faces, and avalanche tracks.
- Evaluate traditional and non-traditional weather patterns, such as prevailing winds and seasonal storms.
- Propose mitigation strategies where harvesting might impact identified values or other resource users.
- Use field verification to drive layout modifications, ensuring both operational feasibility and safety.

Core Safety Elements to Address

Licensees must ensure the following elements are structurally addressed in harvest plans:

- Felling patterns, techniques, and safe danger tree removal protocols.
- Equipment access limitations, operability, and suitable skidding methods.
- Ground stability risks, including rock slides, mudslides, and organic materials.
- Environmental hazards like wind exposure, drought, rain, and fire protection.
- Clear guidelines for reserve zones, machine-free zones, and wildlife tree retention.

Leveraging Industry Resources: *Planners should source expertise to minimize risks effectively. The BC Forest Safety Council provides vital resources, including sample emergency response plans and best practice guides for steep slopes, lock-out procedures, and chain shot.*

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1. Managing Overhead and Falling Hazards

In partial cutting, the canopy remains intact. Dead limbs, loose bark, and hung-up trees are constant threats that require a blend of strict regulation and practical site management.

Type	Focus Area	Required Action & Precautions
WorkSafeBC	Dangerous Tree Assessment	A qualified person must assess worksites for snags, root-sprung trees, or dead tops before work begins (OHSR 26.11). Fall them safely or establish a no-work zone.
WorkSafeBC	Manual Falling	Fallers must clear an escape route before the backcut (OHSR 26.21-26.29). This requires extra vigilance in dense, partially cut stands.
WorkSafeBC	Hung-up Trees	Must be brought down immediately using mechanical assistance. Never leave them unmarked, unattended, or attempt to fall the supporting tree.
Best Management Practices		
Hazard Scanning	Train crews on the "Look Up, Look Down, Look Around" principle to continuously scan for "widowmakers" suspended in the canopy.	
Wind Limitations	Set strict shutdown criteria for high winds. Partial canopies create a wind-tunnel effect, increasing blowdown risks for newly exposed trees.	
Mechanization	Use mechanized feller-bunchers or processors whenever terrain allows to keep workers protected inside reinforced cabs.	

2. Machine Requirements for Ground-Based Systems

Ground-based harvesting is the standard for commercial thinning, but navigating tight trails requires highly specific machine safety standards to protect the operator.

Type	Focus Area	Required Action & Precautions
WorkSafeBC	Protective Structures	Mobile equipment requires heavy-duty Roll-Over and Falling Object Protective Structures (ROPS/FOPS) per OHSR 26.16.
WorkSafeBC	Slope Limitations	Do not exceed manufacturer limits. Baseline maximums are typically 30-35% for wheeled machines and 40% for tracked, unless tethered.
WorkSafeBC	Window Guards	Cabs must be fitted with polycarbonate screens or heavy steel mesh to prevent "jill-poking" (branches snapping into the cab).
Best Management Practices		
Pre-locate Skid Trails	Lay out straight extraction trails before falling begins so logs can be skidded without pivoting into and damaging standing trees.	
Match Machine to Tree	Ensure the processor or feller-buncher is appropriately sized. Handling oversized timber with undersized machines easily causes rollovers.	
Ground Conditions	Monitor soil moisture closely and implement rainfall shutdowns. Machines lose traction and stability rapidly in deep mud.	

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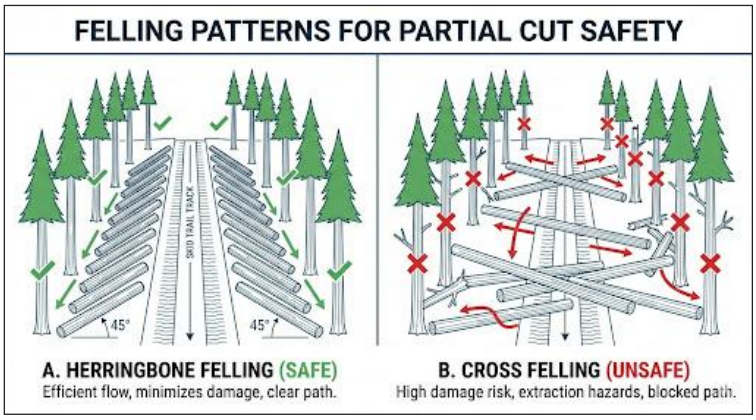
Trail Design & Machine Operability

- **The Hazard:** "Boxing in" the operator. Trails that are too narrow prevent the operator from swinging the boom to protect the cab or escape a falling hazard.
- **Elaborated Control:**
  - » **The 15% Rule:** Trails should be at least **15% wider** than the machine width to allow for minor maneuvering/slippage.
  - » **Junction Angles:** Layout skid trail junctions at **45 degrees (or less)**. 90-degree turns force operators to hit standing timber to make the turn, creating "widow makers" (hanging broken limbs).



3. Communication and Contractor Management

In community forests and woodlots, the licensee often acts as the "Prime Contractor." If you have a logger, a manual faller, and a log hauler on-site simultaneously, you are legally responsible for coordinating their safety.

- **The "Two Tree-Length" Rule:** Ensure no worker operates within two tree-lengths of a manual faller or mechanized harvester without making positive radio contact first.
- **Daily Tailgates:** Conduct a brief morning safety meeting to discuss the day's harvest block. Highlight specific hazards like steep pitches, soft ground, or heavy root rot.
- **Check-in Procedures:** Establish a strict working-alone check-in schedule for operators isolated in insulated cabs, especially in remote blocks with poor cell service.

Part 2: Ground-Based Harvesting Execution

Operating in a "Confined Space" forest.

1. Felling to Lead (Directional Felling)

- **The Hazard:** "Cross-felling." Trees felled across the trail require the skidder/processor to wrestle them out, damaging retention trees and risking cabin impact.
- **Elaborated Control:**
  - » **Herringbone Pattern:** Trees must be felled at a 30-45 degree angle *toward* the skid trail.
  - » **Butt-First vs. Top-First:** Decide this in the parking lot.
    - ◆ *Butt-First:* Safer for the faller/buncher (more control).
    - ◆ *Top-First:* Reduces damage to residual trees during skidding but requires more skill to extract.

2. The "Rub Tree" Technique

- **The Hazard:** Hull damage and structural compromise of the machine cab from impacting standing timber.
- **Elaborated Control:**
  - » **Designate Sacrificial Trees:** On tight corners or steep grades, leave a "rub tree" (bumper tree) intentionally.
  - » **The Protocol:**
    1. Use the rub tree to pivot the load around the corner.
    2. **Cut the rub tree LAST.** Once the skidding is finished in that lane, fall and remove the damaged rub tree. *Never leave a damaged rub tree standing for the next entry.*

3. Visibility & The "Ghost Trail"

- **The Hazard:** Depth perception fails in standing timber. Operators cannot see ground depressions or small rock bluffs hidden by understory.
- **Elaborated Control:**
  - » **Probing:** In deep slash or brush, use the boom to "feel" the trail ahead before committing the tracks.
  - » **Positive Contact:** When two machines (e.g., Feller and Skidder) are in the same partial cut block, they must maintain radio contact at **every** phase change (e.g., "I am moving to Trail 4"). Visual confirmation is unreliable in partial cuts.