
BCTS Chinook Business Area GROUND BASED HARVESTING GUIDELINES

In the event of any discrepancy between these guidelines and contractual, legal and regulatory requirements related to forest practices or safety, the latter shall prevail.

This document provides guidelines for best management practices to be considered during ground based harvesting activities. Most statements are recommendations only unless required by legislation or the Environmental Management System.

SHUTDOWN STANDARDS

STOP WORK and contact your Supervisor and BCTS if any part of the plan is unclear, or if you believe the work cannot be completed safely or may cause negative environmental impacts.

Ground based operations should cease if the Wet Weather Shutdown thresholds are met

OR

BEFORE the following conditions develop:

- ◆ water is transporting visible siltation or sediment towards streams, Fisheries Sensitive Features (FSFs), lakes or Marine Sensitive Features (MSFs); or
- ◆ excessive rutting of 15cm or greater depth is occurring.

**ADVISE YOUR SUPERVISOR AND BC TIMBER SALES
WHEN SHUTDOWN OCCURS**

SAFETY FIRST

1. As per Section 26.2 of the Occupational Health & Safety (OH&S) Regulations, forestry operations must be planned and conducted in a manner that is safe for all workers.
2. Daily ground based harvesting operations must be planned to ensure that hazards specific to ground based equipment operations are communicated and a written plan to address or avoid such hazards are in place.
3. Slope Limitations for logging equipment, contained in Section 26.16 of the OH&S Regulations, must be adhered to during all ground based operations.

KNOW YOUR PLAN

1. All areas that are authorized for harvest under a timber sale license must have a signed Site Plan prepared by a Registered Professional Forester. All harvesting operations should be conducted in accordance with the Site Plan. Where the plan cannot be carried out and the SP must be amended, it must be completed and approved by the TSM prior to the activity taking place.
2. If the ground based machine operator considers the weather and/or site conditions are such that work cannot be completed in compliance with these guidelines, **operations must stop.**
3. The person conducting ground based operations must have an up-to-date harvest plan map or site plan map, complete with stream classifications and authorized crossings.
4. The person conducting ground based operations must have had a thorough pre-work and must understand the plan and potential environmental impacts of their work.
5. Stop work in the immediate area when a stream or other feature not identified on the map is encountered. Notify your supervisor and BC Timber Sales.

GROUND-BASED HARVESTING OPERATIONS

1. Employ knowledgeable, trained and experienced ground based equipment operators.
2. If a stream is **not visible** to a machine operator, the operator should ask their supervisor to flag the stream.
3. Do not remove or disturb stable natural material in a stream or embedded in a stream bank, or a root system that contributes to stream bank stability and fish habitat, during harvesting or stream cleaning.
4. Ground based operating areas should be confined to benches or flat terrain wherever possible to avoid sidecutting and sidecasting. Sections of discontinuous sidecutting may on occasion be used to join benches. **Always apply the manufacturer's standards for capacity and limitations.**
5. Excessive rutting (i.e. 15cm deep, 2 meters long and 30cm wide or greater) is to be avoided **where practicable**.
6. **Brush matting and/or puncheon should be used when working on high sensitivity ground (wet and/or fine textured soil) susceptible to rutting and/or compaction. Brush matted/punched trails should be left plantable.**
7. Stumping, cutting, or filling should be avoided to mitigate site disturbance on or beside the trail.
8. Trail cuts should not exceed 30 cm **where practicable** and should be re-sloped after use to manage the overall soil disturbance within the block. (soil disturbance should not exceed the limits as prescribed within the SP). Mitigating site impact has a higher priority than a steady alignment and grade.
9. Reduce the number of passes on trails (1-3 passes) by planning refueling, maintenance and loading operations.
10. Natural drainages should be maintained with cross drains where:
 - ◆ channelization down a length of trail could occur in heavy rains,
 - ◆ water will accumulate in a low spot.
11. A person engaging in ground-based operations:
 - ◆ must not deposit soil or slash in a stream, wetland, lake or fisheries-sensitive zone, or in a position where the soil or slash can be transported by water into any of these watercourses,
 - ◆ must maintain natural surface drainage patterns,
 - ◆ must mitigate subsurface seepage water being intercepted by trails and diverted into areas that would not naturally have received the water.

STREAMS AND STREAM CROSSINGS

1. Maintaining water quality is the primary concern.
2. Do not fuel or service machinery within a Riparian Management Area of a stream or wetland, or within 30m of a lakeshore.
3. Maintain the prescribed machine free zones (MFZ) identified in the Site Plan and as shown on the operational map(s). Where MFZ's have not been identified, the machine operator should maintain a minimum 5 meter MFZ (16 feet) distance from any stream bank, floodplain, or wetland.
4. **Proposed temporary stream crossings are identified in the site plan and are shown on the operational map(s). The use of an alternate crossing (s) will require an amendment to the plan by a Registered Professional Forester.**
5. Locate, construct and use a temporary stream crossing in a manner that:
 - ◆ protects the stream channel and stream bank, immediately above and below the stream crossing, and mitigates disturbance to the stream channel and stream bank at the crossing;
 - ◆ mitigates damage to understory vegetation;
 - ◆ does not disturb stable natural material that is in a stream or embedded in a stream bank; and
 - ◆ maintains natural drainage patterns and mitigates surface soil erosion, soil displacement, and sedimentation.
 - ◆ Minimizes the number of temporary crossing locations.
 - ◆ Minimize the number of passes on a temporary crossing location
6. Any material used to construct a temporary stream crossing must be removed upon completion of harvesting.

TRAIL REHABILITATION

A PERSON REHABILITATING A TRAIL NEEDS TO DO THE FOLLOWING:

- ◆ remove brush mats or puncheon,
- ◆ fluff up and de-compact the trail,
- ◆ re-establish natural surface drainage; place some woody debris randomly over exposed mineral soil, leaving the trail so that it can be revegetated. A mix of organic material and mineral soil is preferred.