

Logging Waste

And its Relationship to Indicator 3.1.2 Level of Downed Woody Debris

WIWAG February 11, 2021

Description of Logging Waste

Logging waste is classified in different “kinds” of waste:

Breakage: piece less than 3.0 m long with at least one broken end

Logs or Slabs: piece at least 3.0 m in length

Stumps: maximum stump height is 30 cm.

Standing Trees: Must meet minimum recovery standard 3.0 m

Bucking Waste: piece less than 3.0 m long cut either at both ends or at the large end

Each piece of waste is also assessed a “Waste Class”:

Unavoidable: inaccessible or physically obstructed; could not be felled, bucked or removed due to safety or environmental reasons. Waste volume goes against annual Cut Control but there is no stumpage penalty assessed

Avoidable: does not fall within the definition of unavoidable waste. Waste volume goes against annual Cut Control and a stumpage penalty is assessed.



Stump > 30 cm obstructed - Unavoidable



Stump < 30 cm - Acceptable



Stump >30 cm - Avoidable Waste



Stump > 30 cm – Unavoidable (stream identifier)



Bucking Waste – Avoidable and subject to stumpage penalties



Bucking Waste – Avoidable subject to stumpage penalty



Bucking Waste – Unavoidable (Fork) not subject to stumpage penalty

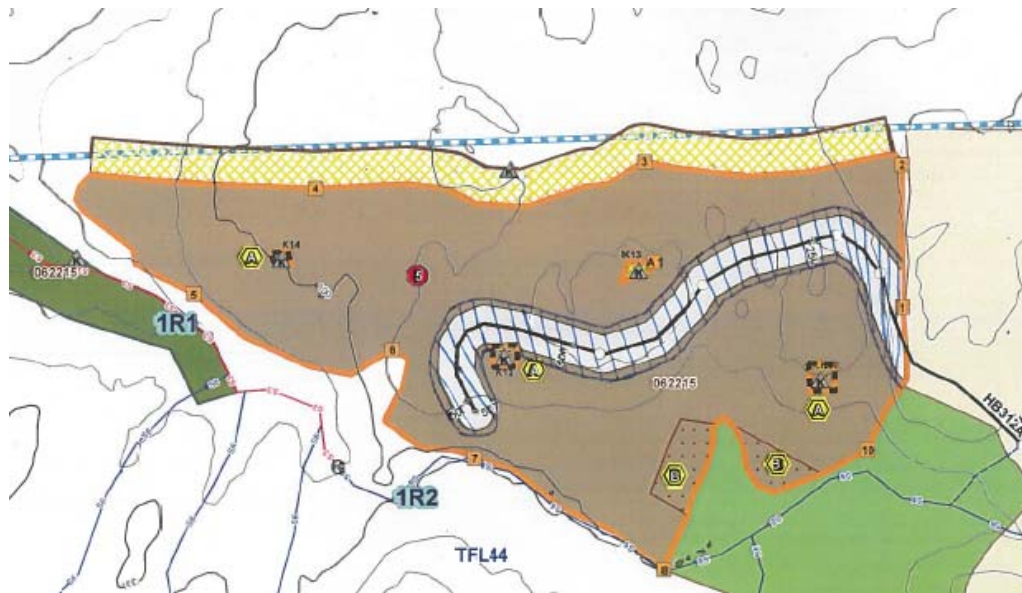
How do we assess the volume of waste in a cutblock?

Four Different Methods:

- A. Full Sampling Intensity Survey Method, FSI
- B. Reduced Sampling Intensity Survey Method, RSI
- C. Parent Block Survey Method, PB
- D. Ocular Estimate Survey Method, OE

For the purpose of the waste survey, cutblocks are generally divided into Strata:

- A. Dispersed: Normally the largest of the stratum for a block, it consist of all of the area more than 15 m away from the edge of the road
- B. Roadside: consist of the area from the edge of the road out 15 m.
- C. Piles: large accumulations of debris mechanically put together
- D. Decks: Five or more logs left in an organized group at roadside
- E. Standing Trees: Trees meeting minimum recovery specification of the CP that have been left standing



Dispersed Stratum:

Waste volume is measured using a 400 m² plot. Depending on where the plot is located, it will either be a circular plot with a radius of 11.28 m or a D shape plot (half-circle) with a 15.96 m radius. All distance are horizontal and must be corrected for slope when required



Historically in Old Growth Conventional, the dispersed stratum represents 79% of the area and 62 % of the waste volume

Roadside Stratum

Waste volume is measured using a 50 m² plot. Depending on where the plot is located, it will either be a circular plot with a radius of 3.99, a rectangle that covers 50 m² (dimension would vary but sampled area will be 50 m²). Sample plots are located alternatively adjacent to the road (plot center located 4 m from edge of the road) or as far away from the road as possible (plot center located 11 m from road edge) to remain inside the stratum.



Historically in Old Growth Conventional, the roadside stratum represents 19% of the area and 23 % of the waste volume

Pile Stratum

Waste volume is measured using a 50 m² plot. Plots are to be located alternatively on the front (facing road) or on the back of the pile. The surveyor uses judgement in establishing these sample plots as piles are not always stable and debris can move without notice. The plots are generally rectangular and cover the entire width of the pile, the plot depth is adjusted to ensure 50 m² of the pile is surveyed. Most piles will include a Measure Factor, the Measure factor is a number between 1 and 100 that describes what the surveyor believes he has sampled.



Historically in Old Growth Conventional, the pile stratum represents 2% of the area and 13 % of the waste volume

Deck Stratum

Waste volume is measured using a 50 m² plot. Given the shape of most decks (rectangular), a rectangle is the shape of choice to estimate waste volume in decks. Decks can also be 100% sampled if not too many have been created. Decks are appreciated by firewood cutters....



Historically in Old Growth Conventional, the deck stratum represents 0.2% of the area and 2 % of the waste volume. Depending on the price of pulp logs and the distance to the delivery point, decks will be either more common or not.

Standing Tree Stratum

Waste volume is measured using an estimate provided by the surveyors if the standing trees are scattered. If located in patches of 0.1 ha or greater, the cruise volume associated with the cutblock is normally used to quantify the waste volume.



Historically in Old Growth Conventional, the Standing tree stratum represents 0.1% of the area and 0.5 % of the waste volume

Recent Policy Change: Implementation of the Fibre Recovery Zone (FRZ)

The FRZ was established as a result of pressure by the Pulp and Paper Industry as a way to improve recovery of low value fibre.

Most of TFL44 falls within the Fibre Recovery Zone

The FRZ has increased the stumpage paid on most waste volume by 3 times.

Sawlog volume (all coniferous species except cedar) is now assessed at three times stumpage, 2020 Average stumpage 16.37 \$/m³ or 49.11 \$/m³ for waste

Pulplog volume (U grades in Hemlock and Balsam, X and Y grades for all species) volume is now assessed at 2.00 \$/m³ from 0.25 \$/m³, an eightfold increase

Deciduous sawlog volume is now assessed at 2.00 \$/m³ up from 1.00 \$/m³

TFL44 Waste Statistics

Year	Volume	Penalty
2012	322,229	< 500 000 \$
2013	201,841	> 200 000 \$
2014	117,137	> 200 000 \$
2015	106,555	< 200 000 \$
2016	114,635	< 200 000 \$
2017	97,959	< 500 000 \$
2018	100,466	> 550 000 \$
2019	65,199	> 550 000 \$
2020	141,875	> 1 100 000 \$

TFL44 Waste Statistics

Period	Conventional	Helicopter	Average
2016 - 2020	113 m3/ha	216 m3/ha	134 m3/ha

Indicator 3.1.2: Level of Downed Woody Debris

Year	Downed Woody Debris (m3/ha)
2020	123 (Estimate)
2019	125
2018	134
2017	140
2016	152
2015	120

Questions - Comments

