


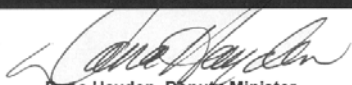
1 Policy and Administration

1.1 Waste Assessment Policy



BRITISH COLUMBIA

MINISTRY OF FORESTS,
MINES AND LAND
POLICY MANUAL

POLICY SUBJECT		
Waste Assessments		
EFFECTIVE DATE	RESPONSIBLE BRANCH	NUMBER
January 13, 2011	Timber Pricing Branch	13.6
APPROVED		
 Dana Hayden, Deputy Minister		

Scope

This policy, in concert with the *Provincial Logging Residue and Waste Measurement Procedures Manual*, supports the concept of “take or pay” to the utilization of Crown timber. It cancels and replaces the Waste Assessments Policy dated October 1, 2010.

Policy

Merchantable Crown timber, whether standing or felled, that is not reserved from cutting and remains on site upon the completion of primary logging of each cutblock or at the expiry of the agreement or cutting permit is waste. The ministry will issue waste assessments charging for this waste subject to exceptions set out in waste relief below.

Waste assessments will apply to all cutblocks in the cutting permit if timber harvesting has occurred on any cutblock.

If the timber relates to a cutting permit that was appraised under the *Interior Appraisal Manual* and was accepted for surrender by the Ministry as part of the Interior Market Pricing System July 1, 2010 transition provisions, the timber in cut blocks where harvesting has not commenced are eligible for waste billing relief in accordance with the May 12, 2010 all licensees letter

Waste assessments will be carried out in accordance with the *Provincial Logging Residue and Waste Measurement Procedures Manual*, as amended from time to time.

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Waste Assessments

Figure 1-1 Waste Assessment Policy.

Waste Relief

A licensee may submit a request for waste relief to the district manager or timber sale manager.

The ADM, Forest Tenures and Timber Pricing Division may direct that no waste assessment will be issued to a licensee where:

- (A) (1) (a) No waste assessment has been issued to the licensee for the timber on the cutting authority area, and
- (b) In the opinion of the ADM the licensee left the timber on the cutting authority area because of circumstances that were:
 - (i) beyond the control of the licensee, and
 - (ii) unrelated to the licensee's:
 - (aa) financial situation; and,
 - (bb) economic circumstances.
- (2) Some examples of circumstances in (1)(b)(i) where it would be reasonable for the ADM to exercise his or her discretion in favour of the licensee are as follows:
 - (a) Where the licensee is prevented from removing the timber from the cutting authority area by an act of God,
 - (b) Where the licensee is prevented from removing the timber from the cutting authority area by a physical barrier or a man made blockade over which the licensee has no control,
 - (c) Where the licensee is prevented from concluding harvesting operations prior to expiration of the cutting authority because of misinformation that an employee of the government has provided to the licensee with respect to the cutting authority provisions or the harvesting operations,
 - (d) Where the licensee is prevented from concluding harvesting operations prior to expiration of the cutting authority because land from the cutting authority has been set aside by agreement between the licensee and the government.

- (B) The licensee held a fixed rate timber sale licence and where,
- (a) The licence authorized the harvesting of timber
 - (i) in the Coast Region and was entered into prior to November 1, 2008 and expired after November 1, 2008, or
 - (ii) in one of the Interior Regions and was entered into prior to September 1, 2007 and expired after September 1, 2007,
 - (b) Merchantable crown timber that was authorized for harvest under the licence, at the agreement holder's discretion was not cut and removed,
 - (c) The timber is standing,
 - (d) In the opinion of the ADM the timber is of sufficient quantity, quality and concentrations that can be marketed at a reasonable price,
 - (e) In the opinion of the ADM the licensee has exhausted all of the licensee's rights under the *Forest Act* to extend the term of the licence, and,
 - (f) The ministry has not issued a waste assessment for the timber to the licensee.
- (C) The licensee held a cutting authority that was issued prior to June 1, 2004 and where,
- (a) Merchantable crown timber that was authorized for harvest under the cutting authority, at the agreement holder's discretion was not cut and removed,
 - (b) The timber is standing,
 - (c) In the opinion of the ADM the timber is of sufficient quantity, quality and concentrations that can be marketed at a reasonable price,
 - (d) In the opinion of the ADM the licensee has exhausted all the licensee's rights under the *Forest Act* to extend the term of the licence, and,
 - (e) The ministry has not issued waste assessment for the timber to the licensee.

Definitions

“Merchantable Timber” means timber that meets or exceeds the timber merchantability specifications in the *Provincial Logging Residue and Waste Measurement Procedures Manual*. Timber that is graded dry Y or Z (Coast), dry Grade 4, Grade 6 or Z (Interior) is not merchantable.

“Primary Logging” means the cutting of timber and the yarding of that timber to a central landing, roadside or drop area in a logging operation.

“Reserved Trees” means merchantable timber left after completion of primary logging that is reserved from cutting for silviculture, biodiversity or other specific forest management reasons.

“Timber Harvesting” means the felling or removal of timber other than on road rights-of-way or landings on a cut block.

“Waste” means timber, except timber reserved from cutting, whether standing or felled, which meets or exceeds the timber merchantability specifications described for the Coast and the Interior in the *Provincial Logging Residue and Waste Measurement Procedures Manual*, that was not removed from the cutting authority area.

Authority

Waste assessments are authorized under:

- Forest Act, sections: 13(3)(b), 14(d)(ii), 20(3)(ii), 22(f)(ii), 33(5)(ii), 35(c)(ii), 43.3(d)(ii), 43.7(2)(c)(ii), 43.8(e)(ii), 45(1)(d)(ii), 47.5(1)(ii), 47.7(f)(ii), 103.1, 118(c)(ii).
- Provisions for waste assessments are made in the agreements and/or cutting authorities.
- *Provincial Logging Residue and Waste Measurement Procedures Manual*.

Responsibility

The district manager is responsible for conducting waste assessments on forestry licences to cut, occupant licences to cut, timber sale licences (non BC Timber Sales) and for conducting waste assessment check surveys.

The timber sales manager is responsible for conducting waste assessments on timber sale licences, forestry licences to cut and permits issued by BC Timber Sales, unless the agreement specifies that the agreement holder is responsible.

Holders of a major licence, woodlot licence, community forest agreement, community salvage licence, road permit or timber sale licence, where so specified in that timber sale licence, are responsible for conducting waste assessments on their licence(s).

Methods Only those methods described in the *Provincial Logging Residue and Waste Measurement Procedures Manual* are to be used for conducting waste assessments.

Waste Classification Waste is classified as either unavoidable or avoidable.

Unavoidable waste means waste that:

- is inaccessible or physically obstructed; or
- could not be felled, bucked or removed due to safety or environmental reasons.

Avoidable waste means waste that does not fall within the definition of unavoidable waste.

Reporting Waste assessments must be completed and reported within the time periods specified in the *Provincial Logging Residue and Waste Measurement Procedures Manual*.

Waste Benchmarks Monetary billings will only be made on the avoidable waste volumes in excess of the waste benchmarks established in the *Provincial Logging Residue and Waste Measurement Procedures Manual*.

Monetary Billing Avoidable waste will be assessed according to the species and log grades.

Coniferous saw logs (Grade U or better all species and hemlock and balsam Grade J [Coast]); Grade 1 and Grade 2 (Interior) will be billed at the waste rate pertaining to the timber mark and derived in a method described in the *Provincial Logging Residue and Waste Measurement Procedures Manual*.

Grade U hemlock and balsam, coniferous Grade X, coniferous and deciduous Grade Y (Coast), and Grade 4 (Interior) will be billed at the rates established for these grades in either the *Coast or Interior Appraisal Manual* plus any bonus or levies where applicable.

Deciduous species graded saw log will be assessed using the appraised stand as a whole rate or where not available, the fixed rate for the species as specified in the *Coast or Interior Appraisal Manual*, plus any bonus or levies where applicable.

Assessment Submissions Unless otherwise provided in the manual, completed waste assessments must be submitted by:

- a registered professional forester (RPF) or a registered forest technologist (RFT) registered with the Association of BC Forest Professionals; or
- a logging residue surveyor or a scaler, licensed by the Ministry of Forests.

References

- *Forest Act*
- *Provincial Logging Residue and Waste Measurement Procedures Manual*

1.2 Purpose and Rationale

1.2.1 Purpose

Waste assessments are carried out to bill licensees monetarily for timber except reserved timber, whether standing or felled, that will not be removed from the cutting authority area and which meets or exceeds the timber merchantability specifications described below.

Table 1-1 Coast Timber Merchantability Specifications

Description		Mature*	Immature*
Stumps**			
•	no higher than	30 cm	30 cm
Top diameter (inside bark)			
•	all timber that meets or exceeds	15 cm	10 cm
Slab thickness:			
•	all slabs that meet or exceed (cedar only)	15 cm	10 cm
•	all slabs that meet or exceed (all other species)	10 cm	10 cm
Minimum length			
•	log or slab	3 m	3 m

- * The selection of Mature or Immature is based on the determination of maturity in a timber cruise of the cutblock. Once a cutblock is determined to be "mature" in a cruise compilation (based on 50 + % of coniferous timber having an average age of 121 years or older and deciduous timber having an average age of 41 years or older), the Mature Timber Merchantable Specifications shall be used for waste measurement of all coniferous and deciduous timber left within the cutblock. Conversely where a cutblock belongs to immature in a cruise, the Immature Timber Merchantable Specifications shall be used for waste measurement of all coniferous and deciduous timber left within the cutblock.

Table 1-2 Interior Timber Merchantability Specifications

Description		All Stands	
Stumps**			
•	no higher than	30 cm	
Diameter (outside bark) at stump height			
•	Lodgepole pine: all timber that meets or exceeds	15 cm	
•	All other species: all timber that meets or exceeds	20 cm	
Top diameter (inside bark or slab thickness)			
•	For all species and ages, except Cedar older than 141 years, all timber that meets or exceeds	10 cm	
•	For Cedar older than 141 years	15 cm	
Minimum length			
•	log or slab	3 m	
**	Measured on the side of the stump adjacent to the highest ground.		

Waste volumes are measured and billed monetarily in accordance with the following Table 1-3.

Table 1-3: The Disposition of **Residue and** Waste Volumes in Monetary Billing

Table Value Effective May 1, 2006 (Valid for all Species)										
Log Type	GRADES		All Stands							
			Avoidable				Unavoidable			
			Class	Measure / Record	Rate*	AAC	Classes	Measure / Record	Rate*	AAC
	COAST	INTER- IOR	W- Waste X- Other	YES/NO	Full \$ /\$0.25		W/X	YES/NO	Full \$ /\$0.25	
Sawlog **	U or Better	1 and 2	W	Yes	Full \$	Yes	W	Yes	NB	Yes
Saw log Hemball	J or Better									
Sawlog **	X	N/A	W	Yes	\$0.25	Yes	W	Yes	NB	Yes
Sawlog Hemball	U									
Lumber Reject	Y	4	W	Yes	\$0.25	Yes	W	Yes	NB	Yes
Dead Dry Lumber Reject	Dry Y	Dry 4	X	No	NB	No	X	No	NB	No
Undersize	N/A	6	X	No	NB	No	X	No	NB	No
Firmwood Reject	Z	Z	X	No	NB	No	X	No	NB	No

*Rate: **Full Stumpage (\$/m³)** = 12-month average Stumpage rate for all coniferous species, and the stumpage rates established in the *Coast or Interior Appraisal Manual* for all deciduous species, \$0.25 = fixed base rate. NB = No Billing.

All rates charged will include any bonus bids and levies where applicable.

x See Appendix 5 for waste benchmarks.

** On Coast, all species except Hemlock and Balsam.

AAC Volume contribute to Cut Control

1.2.2 Rationale

The right to harvest Crown timber is granted in the form of agreements under the *Forest Act*.

The licensee has the discretion of whether or not to harvest the timber from the agreement area subject to the forest management standards required.

Pursuant to the *Forest Act*, an agreement holder must pay stumpage for timber that was harvested.

Under the *Forest Act* and the agreements, the licensee must pay a waste assessment for merchantable timber not harvested and for timber deemed to be wasted.

1.2.3 Definitions

“Waste” means timber, except timber reserved from cutting, whether standing or felled, which meets or exceeds the timber merchantability specifications described for the Coast and the Interior in this manual that was not removed from the cutting authority area.

“Unavoidable waste” means waste that:

- i. is inaccessible or physically obstructed;
- ii. could not be felled, bucked or removed due to safety or environmental reasons.

“Avoidable waste” means waste that does not fall within the definition of unavoidable waste.

"Merchantable timber" means timber that meets or exceeds the timber merchantability specifications that are described in Table 1-1 for the Coast and in Table 1-2 for the Interior in this manual. Timber that is graded dry Y (5) or Z (Coast), graded dry 4, 6 or Z (Interior) is not merchantable.

“Timber Merchantability Specifications” means stump height and diameter, log top diameter, slab thickness and log length described in this manual for the Coast and the Interior.

“Waste assessment” means an assessment conducted in accordance with the procedures set out in the *Provincial Logging Residue and Waste Measurement Procedures Manual* for determining the volumes of merchantable timber and waste left on a harvested area following completion of primary logging.

“Waste benchmark” means the volume of avoidable waste, expressed in cubic metres per hectare, that can be left on a harvested area without being subject to a monetary waste assessment.

1.2.4 Monetary Billings

Subject to the waste benchmarks described in Appendix 5, the avoidable waste volumes are billed as follows.

1.2.4.1 Coast

The avoidable conifer grade X, Y and grade U hemlock and balsam waste volumes are billed at \$0.25 per m³.

Dead/dry grade Y (grade 5) timber not removed from the harvested area is not measured in waste assessments.

The avoidable coniferous sawlogs Grade J or better hemlock and balsam and grade U or better for all other species waste volumes are billed at the average stumpage rates determined in Appendix 3 of this manual.

1.2.4.2 Interior

The avoidable waste volumes of grade 4, lumber reject; are billed at \$0.25 per m³.

The avoidable sawlog grades (1 and 2) volumes are billed at the average stumpage rates determined in Appendix 3 of this manual.

1.2.5 Deciduous

Deciduous species are treated the same as coniferous species for waste billing purposes. Deciduous timber within the merchantability specifications that is not harvested, is measured as waste.

1.2.6 Amount Payable

For merchantable Crown timber that is not cut and removed, the amount payable is calculated by multiplying:

- a. the volumes of avoidable waste reported in a waste assessment after deducting the waste benchmark volume allowed under Appendix 5, by
- b. the applicable stumpage rates as follows:
 - i. Coniferous species graded:
 - aa. sawlog - the rates specified in 1.2.4.1 and 1.2.4.2,

- bb. grades other than sawlog - the rates established as per *Coast and Interior Appraisal Manuals*,
- ii. Deciduous species graded:
 - aa. sawlog - the fixed rate for the species as specified in the appraisal manuals, plus any bonus and levies where applicable.
 - bb. Grades other than sawlog - the rates established as per appraisal manuals.

1.3 Authority

Waste assessments are carried out under the authority of:

1. The *Forest Act*.
2. The Waste Assessment Policy.
3. The *Provincial Logging Residue and Waste Measurement Procedures Manual*.
4. Agreement and Cutting Permit documents.

1.4 Background

Starting in the late 1960s, timber harvesting policy provided for waste measurements. At that time, in the Interior, waste measurement provisions were by and large not exercised except where waste was considered flagrant. On the Coast, waste was measured and charged for cut control purposes but only waste considered 'flagrant' was billed on a monetary basis. The definition of flagrant waste varied over the years.

In the mid-1980s some major forest companies on the Coast left very high levels of waste. In response to public outcries on the Queen Charlottes Islands in 1987, the Ombudsman commissioned T.M. Thomson & Associates to review a major coastal licensee's waste measurement procedures and utilization practices on the Queens Charlottes. The review determined that there was a need to develop consistent and enforceable utilization standards and waste measurement procedures for the entire province.

The responsibility for developing the utilization policy was placed with the Director of RTEB. The Coast and Interior utilization policies were implemented in the early 1990s. Both policies prescribed the minimum cutting specifications, log grade utilization and cut control requirements.

The responsibility for developing the waste measurement standards was placed with the Director of Timber Pricing Branch. Necessitated by the implementation of the zero waste policy, the *Residue and Waste Measurement Procedures Manual* was released and approved for use in the entire province in 1991. All harvest completed cutblocks in the Interior and on the Coast were required to have waste measured and reported in accordance with the standards and procedures set out in the manual.

Until the year-end of 1998, the province had a zero waste policy. Under this policy, logs that were sawlog grade were required to be utilized (mandatory utilization); if they were not utilized and left on the cutblock, these logs were classified and billed as waste. This policy meant that all useable logs except low quality pulp (grade Y or 4) logs, were required to be removed from the cutblock by the company licensed to harvest the area.

Under this policy, all logs that were sawlog grade and physically possible to be removed were required to be utilized by the licensees.

Starting in 1999, waste benchmarks were established to allow a volume of waste to be left without being monetarily billed. The waste benchmarks allow the licensees to decide which logs to remove or to leave behind as waste. The concept was that market forces would drive the business decisions. Licensees would recover logs to their economic margins. Another purpose of the waste benchmarks was to accommodate coarse woody debris, which is important in the nutrient and organic matter dynamics of forest ecosystems.

The benchmarks were not based on scientific studies or quantitative analyses. Rather, the benchmarks were set as a starting point to recognize that zero waste was not a sound

ecological policy and economics was not served by compelling licensees to remove every log.

In the spring of 2003, the government announced the Forestry Revitalization Plan and brought forward legislation to reform forest policy. Waste policy was further aligned with the Ministry policy reform undertaken to allow market forces to drive business decisions. Foremost was the elimination of the mandatory species and log grade utilization (cut and remove) requirements, so that licensees are free to extract any logs of value to them within the cutting authority areas subject to the *Forest and Range Practices Act* and the required forest management standards. Licensees must pay stumpage on timber removed and scaled, and waste assessments on timber, whether standing or felled that was not removed from the cutting authority area. This is referred to as the “Take or Pay” Policy.

In 2015, in response to a need for more complete and efficient utilization of wood fibre the government, in cooperation with the Forestry Fibre Working Group announced the *Forest Fibre Action Plan*. One of the outcomes of the Plan was the Pre Harvest Waste Assessment. In August 2016 the *Provincial Logging Residue & Waste Measurement Procedures Manual* was amended to include this new waste reporting method.

1.5 Responsibility

The responsibilities are as follows:

1.5.1 Timber Pricing Branch

1.5.1.1 Director, **Timber Pricing Branch**

The Director, **Timber Pricing Branch** is responsible for:

1. Approving *Provincial Logging Residue and Waste Measurement Procedures Manual* and amendments.
2. Processing and maintaining waste data.
3. Billing licensees by issuing waste invoices for monetary and cut control charges.

1.5.1.2 **Residue and Log Salvage Policy Forester, Timber Pricing Branch**

The **Residue and Log Salvage Policy** Forester is responsible for:

1. Developing and maintaining standards and procedures for determining and reporting waste.
2. Providing training and technical support.
3. Providing policy interpretation to industry and ministry staff.
4. Maintaining software compilation programs and standards.
5. Conducting technical reviews of Forest Regions and Forest Districts for policy and procedure compliance.

1.5.2 Regional Manager

The Regional Manager is responsible for:

1. Ensuring that district staff adhere to policy and procedures, and where necessary, provide training to district staff.
2. Recommending survey procedure changes where necessary, to the Director, Timber Pricing Branch.
3. Advising industry and forest district staff on matters relating to waste assessments.
4. Processing waste reports and FS 702 for waste monetary billing and cut control where required.

5. Providing Waste System **guidance and** training to district staff and industry users.

1.5.3 District Manager

The District Manager is responsible for:

1. Conducting check surveys in accordance with manual standards.
2. Implementing and administering the policy and procedures, and recommending survey procedure changes where necessary to the Regional Manager.
3. Approving waste assessment plans and issuing reporting unit numbers.
4. Checking for completeness of licensees' submitted reports.
5. Processing waste reports and FS 702 for waste monetary billing and cut control where required.

1.5.4 Timber Sales Manager

Unless otherwise specified in the agreement, the Timber Sales Manager is responsible for:

1. Ensuring BCTS Licensees submit waste assessments in accordance with licence agreements, Waste Policy and the *Provincial Logging Waste Measurement Procedures Manual*.
2. Where a BCTS licensee does not submit a waste assessment as required under 1.5.4(1) the timber sales manager may carry out the assessment, and in a notice given to the holder, may require the holder to pay the costs incurred by the timber sales manager in carrying out the assessment.

1.5.5 Licensees

Holders of a Major Licence, Community Forest Agreement, Community Salvage Licence, **Woodlot Licence and Road Permits** are responsible for conducting waste assessments on their scale based cutting authorities.

The licensee's are responsible for:

1. Submitting annual waste assessment plans.
2. Conducting waste assessments in accordance with this manual.
3. Submitting waste field data into the online Waste System.

Where the above mentioned work is performed by a contractor or a sub-contractor, it is the licensee's responsibility for ensuring that the work is carried out in compliance with Ministry standards and requirements.

1.6 Waste Relief Procedures

Pursuant to the waste relief section of the Waste Assessment Policy, a licensee may apply, in writing, for waste relief with respect to the timber left on a cutting authority provided the government has not issued a waste assessment (invoice) for the timber to the licensee.

1.6.1 Initiating Applications

1. The application for waste relief must include the reasons for seeking relief and data on the timber volume and grades for which relief is being sought (the supporting data).
2. An application must be submitted by:
 - a. BCTS licensees to the Timber Sales Manager with a copy to the District Manager, and,
 - b. All other licensees to the District Manager.
3. The application must be submitted prior to issuance of the waste assessment (invoice).

1.6.2 Content and Processing of Applications

1. The licensee shall submit the supporting data to the Timber Sales Manager or District Manager, as the case may be.
2. The supporting data must provide an accurate estimate of timber volume remaining on each of the cut block(s) in the cutting authority. That timber volume estimate may be determined by, but not necessarily limited to, the following methods:
 - a. A cut/cruise comparison analysis with a map showing the location of the timber included in the waste relief application, and/or,
 - b. An ocular survey conducted in accordance with this manual and a map showing the locations of the timber included in the waste relief application, and/or,
 - c. A full waste survey conducted in accordance with this manual, and/or,
 - d. A timber cruise with a map showing the locations of the timber included in the waste relief application.

Note: The supporting data for the timber for which waste relief is requested must be submitted by the licensee into the Waste System as a separate waste survey, prior to the waste relief application being processed. This waste survey will be kept in the Waste System in 'Submitted' status and must not be processed by District staff until after a determination has been rendered on the application for waste relief.

3. The supporting data will be submitted by the licensee into the Waste System and identified by way of a notation or comment in the waste system that the information pertains to an application for waste relief.
4. Timber Sales Manager or District Manager, as the case may be, upon receipt of the data submitted, will prepare an information package that should include:
 - a. Relevant information on the cutting authority,
 - b. An estimated waste monetary assessment based on the timber grade profile, on a block by block basis, and the applicable waste rates.
 - c. An assessment of the opportunity for resale of the timber included in the waste relief application, including the current market value, and,
 - d. A Briefing Note to the Assistant Deputy Minister, Timber Operations and Pricing Division containing a recommendation on whether or not to grant waste relief.
5. The information package will be forwarded in electronic form to the Director, Timber Pricing Branch, Ministry of Forests, Lands and Natural Resource Operations, with a copy to the Regional Executive Director and the Regional Revenue Manager.

1.6.3 Waste Relief Determination

The Assistant Deputy Minister, upon reviewing the information provided, and considering the pertinent documentation, will make a determination and notify the licensee, with a copy to the District Manager, the Timber Sales Manager (in the case of BCTS agreements) and the appropriate Regional Executive Director and the Regional Revenue Manager.

If the waste relief application is not approved, the District Manager will process the waste survey and issue an invoice for that timber included in the waste relief application.

If the waste relief application is approved, the District Manager will deactivate the waste survey submitted to the Waste System for that timber included in the waste relief application.

