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Ministry of Forests  
and Range

Pricing Branch

MEMORANDUM

File: 195-30/RWMM  
125974

October 4, 2010

**BY EMAIL**

To: Regional Executive Directors

From: Murray Stech  
Director  
Pricing Branch

Re: **Amendment No. 16 to the *Provincial Logging Residue and Waste Measurement Procedures Manual***



I hereby approve Amendment No. 16 to the *Provincial Logging Residue and Waste Measurement Procedures Manual*, and attach a copy for your use.

The purpose of this amendment is to amend the Waste Assessments Policy to provide waste relief for specific criteria.

This amendment comes into force on October 1, 2010.

Murray Stech  
Director  
Pricing Branch

Attachment





Ministry of  
Forests and Range



## MANUAL REVISION TRANSMITTAL

<p>FOR FURTHER INFORMATION OR IF YOU HAVE A CHANGE OF ADDRESS, PLEASE CONTACT:</p> <p>John Wai Residue Forester and Log Salvage Policy Forester Revenue Branch Ministry of Forests and Range 1 Floor, 1520 Blanshard Street Victoria, BC V8W 3K1 Phone: 250-356-7671 Email: John.Wai@gov.bc.ca FAX: 250-387-5670</p>	<b>MANUAL TITLE</b>	
	Prov. Logging Residue & Waste Measurement Procedures Manual	
	<b>AMENDMENT</b>	<b>ISSUE DATE</b>
	Amendment No. 16	October 1, 2010
<b>MANUAL CO-ORDINATOR</b>		
Judy Laton Publications/Administrative Co-ordinator		
<b>AUTHORIZATION (Name, Title)</b>		
Murray Stech Director, Revenue Branch		

Please make the following changes to your copy of the above Ministry manual.

ACTION (Remove/Insert)	(VOL.) CHAPTER-SECTION-SUBJECT	PAGE(S)	COMMENTS
	TABLE OF CONTENTS		
REMOVE	Table of Contents	i - viii	After Table of Contents Tab
INSERT		i - viii	
REMOVE	Chapter 1	1 - 18	After Chapter 1 Tab
INSERT		1 - 20	
INSERT	Letter from Murray Stech, Director Transmittal Sheet		After Amendments Tab



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# **Policy and Administration**

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**1**

## 1.1 Waste Assessment Policy





Province of  
British Columbia  
Ministry  
of Forests

<b>POLICY SUBJECT</b>		
Waste Assessments		
EFFECTIVE	RESPONSIBLE BRANCH	NUMBER
October 1, 2010	Pricing Branch	13.6
<b>APPROVED</b>		
 for Dana Hayden, Deputy Minister		

  

**MINISTRY POLICY**

**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 September 1, 2008.

**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.

Waste Assessments
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**Figure 1.1 Waste Assessment Policy.**

Policy 13.6Waste Assessments**Waste Relief**

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

The ADM, Tenure & Pricing may direct that no waste assessment will be issued to a licensee where:

- (1) The unharvested timber remaining on the cutting authority was due to factors that, in the opinion of the ADM, were beyond the control of the licensee and where the ministry has not issued a waste assessment for the timber to the licensee.

Circumstances that are beyond the control of the licensee include:

- (a) An Act of God, or
  - (b) Extreme physical barriers or blockades that prevent timber harvesting and cannot be reasonably resolved, or
  - (c) Officially induced error that results in a licensee being seriously disadvantaged, or
  - (d) Areas that are required by the ministry to be reserved from harvest after the issuance of the CP and the ministry has requested that a licensee not harvest on the cutting authority.
- (2) 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,



Policy 13.6

Waste Assessments

- (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.
- (3) 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.

Waste Assessments

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Policy 13.6	Waste Assessments
<b>Authority</b>	<p>“<b>Timber Harvesting</b>” means the felling or removal of timber other than on road rights-of-way or landings on a cut block.</p> <p>“<b>Waste</b>” 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 <i>Provincial Logging Residue and Waste Measurement Procedures Manual</i>, that was not removed from the cutting authority area.</p> <p>Waste assessments are authorized under:</p> <ul style="list-style-type: none"> <li>• 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)(e)(ii), 43.8(e)(ii), 45(1)(d)(ii), 47.5(1)(ii), 47.7(f)(ii), 103.1, 118(c)(ii).</li> <li>• Provisions for waste assessments are made in the agreements and/or cutting authorities.</li> <li>• <i>Provincial Logging Residue and Waste Measurement Procedures Manual</i>.</li> </ul>
<b>Responsibility</b>	<p>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.</p> <p>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.</p> <p>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).</p>
<b>Methods</b>	<p>Only those methods described in the <i>Provincial Logging Residue and Waste Measurement Procedures Manual</i> are to be used for conducting waste assessments.</p>
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**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.



Policy 13.6

Waste Assessments

**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 was not 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 Waste Volumes in Monetary Billing**

Table Values Effective May 1, 2006 (Valid for all Species)								
LOG  TYPE	G R A D E S		ALL STANDS					
			AVOIDABLE (from field data)			UNAVOIDABLE (from field data)		
	Coast	Interior	Class W/X	Measure YES/NO	Rate * S/\$0.25	Class W/X	Measure YES/NO	Rate * S/\$0.25
Sawlog **	U or better	1 and 2	W	YES	S	W	YES	NB
Sawlog Hemba	J or better							
Sawlog **	X		W	YES	\$0.25	W	YES	NB
Sawlog Hemba	U							
Lumber Reject	Y	4	W	YES	\$0.25	W	YES	NB
Dead Dry Lumber Reject	Dry Y	Dry 4	X	NO	NB	X	NO	NB
Undersize		6	X	NO	NB	X	NO	NB
Firmwood Reject	Z	Z	X	NO	NB	X	NO	NB

**Class:** Waste, X other

**Measure/Record:** YES or NO

**Rate:** S = 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.

### 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 m<sup>3</sup>.

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 m<sup>3</sup>.

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:
    - (a) sawlog - the rates specified in 1.1.4.1 and 1.1.4.2,

- (b) grades other than sawlog - the rates established as per *Coast and Interior Appraisal Manuals*,
- ii) Deciduous species graded:
  - (a) sawlog - the fixed rate for the species as specified in the appraisal manuals, plus any bonus and levies where applicable.
  - (b) 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 Revenue 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 the cutting authority area. This is referred to as the “Take or Pay” Policy.

## **1.5 Responsibility**

The responsibilities are as follows:

### **1.5.1 Revenue Branch**

#### **1.5.1.1 Director, Revenue Branch**

The Director, Revenue 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 Waste Assessment Policy Forester, Revenue Branch**

The Waste Assessment 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, Revenue 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 Systems training to district staff and industry users.

### **1.5.3 District Manager**

The District Manager is responsible for:

1. Conducting waste assessments (full surveys and/or ocular estimates) on forestry licences to cut and occupant licences to cut, and timber sale licences (non BCTS).
2. Conducting check surveys in accordance with manual standards.
3. Implementing and administering the policy and procedures, and recommending survey procedure changes where necessary to the Regional Manager.
4. Approving waste assessment plans and issuing reporting unit numbers.
5. Checking for completeness of licensees' submitted reports.
6. 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. Conducting waste assessments (full surveys and/or ocular estimates) on timber sale licences, permits and forestry licences to cut issued under BC Timber Sales.
2. Submitting an annual waste assessment plan to the District Manager for approval.
3. Compiling waste field data and completing waste reports and FS 702.
4. Submitting completed waste assessment reports in the required format to the District Manager within the time frame specified in this manual.

### **1.5.5 Licensees**

Holders of a major licence, community forest agreement, community salvage licence, (full surveys or ocular estimates) 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. Compiling waste field data by using appropriate software.
4. Submitting completed waste assessment reports in the required format to the District Manager within time frame specified in this manual.

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.

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