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Ministry of Forests  
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Revenue Branch

MEMORANDUM

File: 195-30/RWMM  
115537

August 28, 2008

**BY EMAIL**

To: Regional Executive Directors

From: Murray Stech  
Director  
Revenue Branch

**Re: Amendment No. 10 to the *Provincial Logging Residue and Waste Measurement Procedures Manual***

I hereby approve Amendment No. 10 to the *Provincial Logging Residue and Waste Measurement Procedures Manual*, and attach a copy for your use.



The purpose of this amendment is to accommodate the transfer of waste survey responsibility from Timber Sales Manager to the holders of Timber Sale Licenses.

This amendment comes into force on September 1, 2008.

Murray Stech  
Director  
Revenue 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 6<sup>th</sup> Floor - 727 Fisgard Street Victoria, BC V8W 1R8 Phone: 356-7671 Email: John.Wai@gov.bc.ca FAX: 387-5670</p>	<b>MANUAL TITLE</b>	
	Prov. Logging Residue & Waste Measurement Procedures Manual	
	<b>AMENDMENT</b>	<b>ISSUE DATE</b>
	Amendment No. 10	September 1, 2008
<b>MANUAL CO-ORDINATOR</b>		
Judy Laton Manuals 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	Chapter 1	1 - 6 15 - 18	After Chapter 1 Tab
INSERT		1 - 6 15 - 18	
REMOVE	Chapter 3	5 - 8	After Chapter 3 Tab
INSERT		5 - 8	
REMOVE	Chapter 6	9 - 10	After Chapter 6 Tab
INSERT		9 - 10	
INSERT	Letter from Murray Stech, Director Transmittal Sheet		After Amendments Tab




# **Policy and Administration**

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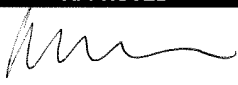
**1**

## 1.1 Waste Assessment Policy





**Province of  
British Columbia  
Ministry  
of Forests**

POLICY SUBJECT		
Waste Assessments		
EFFECTIVE	RESPONSIBLE BRANCH	NUMBER
September 1, 2008	Revenue Branch	13.6
APPROVED		
 <b>Doug Konkin, Deputy Minister</b>		

**MINISTRY POLICY**

**Scope** This policy, in concert with the *Provincial Logging Residue and Waste Measurement Procedures Manual*, implements the concept of “take or pay” to the utilization of Crown timber. It cancels and replaces the Waste Assessments Policy dated May 1, 2006.

**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 cut block or at the expiry of the agreement or cutting permit is waste. The ministry will issue waste bills charging for this waste.

Waste bills will apply to all cut blocks in the cutting permit if timber harvesting has occurred on any cut block.

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

**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.

Waste Assessments

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*Figure 1.1 Waste Assessment Policy.*



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Waste Assessments

**“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.

**“Waste Bills”** means a monetary invoice issued by the Ministry of Forests for waste reported in a waste assessment.

**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)(e)(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*.

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Waste Assessments

**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*.

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Waste Assessments

**Monetary Billing**

Avoidable waste will be billed 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 billed 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**

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.

## **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, woodlot licence, road permit, and master licence to cut **and timber sale licence, where so specified in that timber sale licence**, are responsible for conducting waste assessments (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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5. Upon receipt of the District Manager's approval, the licensee shall submit a waste report for the exempted block within sixty (60) days. This report will be based on the survey data from the approved parent block.
6. The data reported for an exempted block will be subject to check survey and used for monetary billing and cut control purposes.
7. Blocks rejected from exemption will be subject to surveys under the RSI, FSI or the Aggregate Option.

### **3.3 Ocular Estimate**

The ocular estimate is designed to reduce surveying costs and administration time on cutblocks. Licensees will be billed for monetary charges as per volumes estimated.

For all Forest Regions, ocular estimates must be submitted and signed off by a licensed surveyor or scaler, RPF or RFT. Where there are no revenue concerns, a district manager may exempt this requirement for minor tenures and woodlot licences.

#### **3.3.1 Ocular Estimate Levels**

The maximum allowable avoidable waste levels for performing ocular estimates are the waste benchmark levels established in Appendix 5, for cutblocks in all forest regions.



If the waste benchmark is exceeded and there is minimal revenue risk, the District Manager may permit the use of oculars.

Where both the representatives of the licensee or the party responsible for ocular and the District Manager agree, standing timber waste volumes may be derived using the ocular estimate method. The average net piece volume contained in the Extended Type Stand and Stock Table in the cruise report may be used to derive the standing timber volume. Grades for the standing trees are assigned using the historical billing history records. In the instances that the billing history records are absent or if an RPF or RFT considers the historical records are unrepresentative of the grade profile on site, grade allocations may be derived by an RPF or RFT based on actual on site examinations.

#### **3.3.2 Conditions**

This procedure can be applied when:

1. The estimated level of avoidable waste on the cutblock meets Section 3.3.1.
2. The volume of waste can be reasonably estimated and there is minimal revenue risk.

If these two criteria cannot be met, a plot sampling survey will be required.

#### **3.3.3 Responsibility**

Similar to full surveys, major licensees and woodlot licensees are responsible for carrying out oculars on their scale based cutting authorities. The District Manager is responsible for conducting oculars on forestry licences to cut (minor and occupant). The Timber Sales Manager is responsible for conducting oculars on Timber Sale Licences



(unless otherwise specified in the licence that the licensee is responsible), permits and forestry licences to cut sold by BC Timber Sales.

The party responsible for ocular is also responsible for entering and submitting the ocular data using the web based Waste System.

### 3.3.4 Procedures

1. A licensee or party responsible for ocular estimate should review previous waste assessments done on blocks with similar forest types, harvesting systems and conditions, and preferably logged by the same operator to determine if an ocular estimate would be appropriate, and in accordance with Section 3.3.2.
2. A final harvesting inspection should be conducted by the licensee, or its representative, preferably jointly with the Forest Service. On this inspection, enough of the cutblock should be seen to get a representative picture of the levels of waste to decide if an ocular estimate is appropriate.
3. If an ocular is not appropriate, a FSI or an RSI survey is required.
4. If an ocular estimate is appropriate, the volumes of waste are estimated using Form RW 01 (copy attached).
5. "Inspection plots" or transect lines should be used to support the ocular estimate. Inspection plots should be of 50 m<sup>2</sup> (3.99 m radius) minimum in size and selectively located in areas with representative levels of avoidable waste.

Heavy accumulations of avoidable waste on a block may have to be excluded from the estimate and measured and returned separately.

6. If the waste level appears to be higher than reported in the ocular estimate, the Forest Service may not accept the ocular estimate. A FSI waste survey will be required by the licensee.
7. If the licensee and the Forest Service accept the estimate, the completed Form RW 01 *must be signed by both parties*. The licensee proceeds to enter and submit the ocular estimated waste volumes by using the Waste System.
8. If either the licensee or the Forest Service disagrees, a full sampling intensity survey must be conducted by the licensee.

### 3.3.5 Monitoring

1. Senior and more experienced district staff should monitor implementation of this procedure to ensure consistency.

2. Regional Waste Coordinators should audit district's work, provide necessary training and make recommendations to the Branch on the implementation of the procedures and its effect on the waste assessment program.

### **6.5.2 Dispute Resolution (BCTS)**

Where there are billable waste volumes on a Timber Sale Licence, **Forestry Licence to Cut or permit issued by BCTS following a waste assessment conducted by BCTS**, the Timber Sales Manager may notify the TSL holder **about the** waste assessment results. In the event that the TSL holder disputes the waste assessment results, the holder may submit a letter in writing specifying the grounds of dispute to the TSM within thirty (30) days of receiving the assessment results.

If the TSL holder is notified of the assessment results and no letter of dispute is received by the TSM, the TSL holder is deemed to have accepted the waste assessment results.

Once the TSM has forwarded the TSL waste assessments to the District Manager, subject to the field check that may be carried out by the district staff, the results are deemed to be final.

Any disputes relating to the check surveys and waste billing rates should be directed to the District Manager.

## **6.6 Material Disposed of Prior to Waste Assessments**

If waste materials on a cutblock, landings, and roadside or spot accumulations are disposed of prior to the completion of waste assessments, the District Manager may bill the licensee monetarily and for cut control by using the higher of the district or the licensee waste volume average experienced for the stratum type in the past year or the best information.

Additionally, the District Manager may bill the licensee for the administration and field costs incurred in preparing the estimates.