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Ministry of Forests,  
Mines and Lands

Minister's Office

MEMORANDUM

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To: Bill Warner, Regional Executive Director, Omineca Forest Region  
Eamon O'Donoghue, Regional Executive Director, Skeena Forest Region  
Dale Morgan, Regional Executive Director, North East Forest Region  
Gerry MacDougall, Regional Executive Director, Cariboo Forest Region  
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Kevin Dickenson, Regional Executive Director, Thompson Okanagan Forest Region

From: The Honourable Pat Bell, Minister of Forests, Mines and Lands and Steve Thomson,  
Minister of Natural Resource Operations

Re: Amendment No. 5 to the *Interior Appraisal Manual*

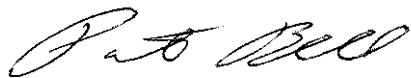
We hereby approve Amendment No. 5 to the *Interior Appraisal Manual* and attach a copy for your use. The following has been amended:



- |                 |   |
|-----------------|---|
| Section 1.1     | Revised text for appraisal data submission, Director, District Manager, Executive Director, and Pricing Branch definitions. New definition for forest professional added. |
| Section 1.2.1   | Revised heading.  |
| Section 1.5.1   | Section reorganized and new subsection added for cruise information.  |
| Section 1.5.2   | Revised section for appraisal data forms.   |
| Section 1.5.3   | Revised text to require submission of appraisal map.  |
| Section 2.1     | Revised text and new subsection for clarification on appraisal data submission.   |
| Section 4.3(10) | Revised text for clarification on development costs.  |

Section 4.5	Revised text for total new coniferous volume in the basic and total silviculture cost estimate.
Section 5.1.1	Additional and revised text for clarification. Revised text for title change to Executive Director, BCTS.
Section 5.2.3(2)	Revised text for clarification.
Section 6.2.1(1)	Section reference updated.
Section 6.2(5)	Section reference updated.
Table 6-6	Additional situation qualifying for area stumpage rates.
Section 6.7	Additional situation qualifying for linear tenures. Section reference updated.
Section 6.9	Revised text for clarification.
Appendix I	New equipment and rate added for lowbed.
Table A6-3	Three smallwood licences added and expiry dates past July 1, 2012 removed.

This amendment will come into force upon signature. Further amendments or revisions to this manual require our approval.



Pat Bell  
Minister of Forests, Mines and Lands



Steve Thomson  
Minister of Natural Resource Operations

Attachment

pc: Murray Stech, Director, Timber Pricing Branch, Ministry of Forests, Mines and Lands



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and Range



## MANUAL REVISION TRANSMITTAL

FOR FURTHER INFORMATION OR IF YOU HAVE A CHANGE OF ADDRESS, PLEASE CONTACT:  Bob Bull Senior Timber Pricing Forester (Interior) Pricing Branch Ministry of Forests 1 <sup>st</sup> Floor, 1520 Blanshard Street Victoria, BC V8W 3K1 Phone: 250 – 356-7709 Email: Bob.Bull@gov.bc.ca FAX: 250 - 387-8393	<b>MANUAL TITLE</b>	
	Interior Appraisal Manual	
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<b>MANUAL CO-ORDINATOR</b>		
Judy Laton Publications/Administrative Co-ordinator		
<b>AUTHORIZATION (Name, Title)</b>		
Murray Stech Director, Pricing 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	1 - 4	After Table of Contents Tab
Insert		1 - 4	
Remove	Chapter 1	1 - 12	After Chapter 1 Tab
Insert		1 - 12	
Remove	Chapter 2	1 - 12	After Chapter 2 Tab
Insert		1 - 14	
Remove	Chapter 3	11 - 12	After Chapter 3 Tab
Insert		11 - 12	
Remove	Chapter 4	5 – 10 29 - 32	After Chapter 4 Tab
Insert		5 – 10 29 - 32	
Remove	Chapter 5	1 - 6	After Chapter 5 Tab
Insert		1 - 6	
Remove	Chapter 6	5 – 8 15 - 20	After Chapter 6 Tab
Insert		5 – 8 15 - 20	
Remove	Appendix	1 – 2 15 - 16	After Appendix Tab
Insert		1 – 2 15 - 16	
Remove	Index	1 - 4	After Appendix Tab
Insert		1 - 4	
INSERT	Letter from Minister and Transmittal Sheet		After Amendments Tab



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# **Introduction**

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**1**

## 1.1 Definitions

In this manual:

“**Act**” means *Forest Act*;

“**Agreement**” means a form of agreement granting rights to harvest Crown timber referred to in section 12 of the *Act*, or a pulpwood agreement;

“**Anniversary date**” means the annual recurrence of the month and day when the term of the cutting authority began;

“**Applicable Volume**” means:

- a. Except as provided in section 2.2.1(e) and 4.3(13), and subject to paragraph (b) of this definition, where the harvesting is authorized on a cutting authority area under an agreement other than a BCTS licence, applicable volume means the total net coniferous volume,
- b. Where the cutting authority or the agreement under which the cutting authority is issued is cruised based or requires harvesting in deciduous stands and the deciduous timber has not been reserved, applicable volume means the sum of the total net coniferous volume and the total net deciduous volume,
- c. Where the harvesting is authorized on a cutting authority area under a BCTS licence, applicable volume means the sum of the total net coniferous volume and the total net deciduous volume;

“**Appraisal Data Submission (ADS)**” means the information required by the person who determines the stumpage rate to determine the stumpage rate including the forest professional’s signed submission in the form required by the director, and any other information required by the regional manager or district manager;

“**BCTS**” means BC Timber Sales;

“**BCTS licence**” means a timber sale licence entered into under Section 20 of the *Act* or Section 21 as it was before it was repealed;

“**Billing history record**” means a record of log scale data derived from a record kept by Pricing Branch of log scale data reported on stumpage invoices issued by the Pricing Branch for timber scaled under section 94 of the *Act*;

“**Bonus Bid**” means a bonus bid described in section 103(1)(d) of the *Act*;

“**Bonus Offer**” means a bonus offer described in section 103(2) of the *Act*;

“**Chipped**” means having been cut into small pieces by a chipper;

**“Coniferous cruise volume”** means that part of the total net cruise volume which is coniferous timber;

**“Controlled Recreation Area”** means controlled recreation area as defined in the *Resort Timber Administration Act*;

**“Cruise Based”** means a cutting authority where under section 106 of the *Act* the stumpage payable is calculated using information provided by a cruise of the timber conducted before the timber is cut;

**“Cutting Authority”** means:

1. A cutting permit issued under:
  - a. a forest licence,
  - b. a timber sale licence that provides for cutting permits,
  - c. a tree farm licence,
  - d. a community forest agreement,
  - e. a woodlot licence,
  - f. a timber licence,
  - g. a community salvage licence,
  - h. a master licence to cut,
  - i. a forestry licence to cut, or
  - j. a woodland licence,
2. A timber sale licence under which cutting permits have not or will not be issued,
3. All other licences to cut,
4. A road permit;

**“Cutting Authority Area”** means the area where timber may be harvested under a cutting authority, which has a unique timber mark;

**“Deciduous timber”** means timber that is not of a coniferous species;

**“Decked timber”** means timber that has been 100% decked at roadside;

**“Director”** means director of **Timber** Pricing Branch of the Ministry of Forests, Mines and Lands;

**“District Manager”** means:

- a. Except as provided in paragraph (b) of this definition, the district manager or district manager's designate,
- b. Where the cutting authority area being appraised or reappraised is located in a controlled recreation area designated under the *Resort Timber Administration Act*, (RTAA) then district manager means an employee of the Ministry of Natural Resource Operations, to whom the minister of **Tourism, Trade and Investment** has delegated the minister's powers and duties under section 2 of the RTAA;

**“Effective Date”** means, unless otherwise specified in the manual:

- i. the date the stumpage rate is determined when required for advertising for competitive award, or
- ii. the effective date of the cutting authority when the stumpage rate is determined for a cutting permit or a direct award licence;

**“Executive Director, BCTS”** means Executive Director, **BCTS** or Executive Director, **BCTS**' designate;

**“F.O.B.”** means ‘free on board’. The specified destination point at which ownership of the goods transfers from the seller to the buyer. ‘F.O.B. origin’ would mean the buyer assumes responsibility for the goods, shipping costs and insurance once the goods leave the seller's premises;

**“Forest Professional”** means a Registered Professional Forester (RPF), a Registered Forest Technologist (RFT) or a special permit holder acting within the scope of their permit, registered and in good standing with the Association of British Columbia Forest Professionals;

**“Fully Appraised”** means stand data (site specific or borrowed) has been used by the general appraisal system to calculate an indicated stumpage rate or has been included in an appraisal for a BCTS cutting authority including appraisals where the upset rate was set at the variable cost to prepare the timber for sale;

**“Hogged Tree Material”** means tree residues or by-products that have been shredded into smaller fragments by mechanical action;

**“Licensee”** means the holder of a cutting authority;

**“Manual”** means *Interior Appraisal Manual*;

**“Minister”** means Minister of Forests, Mines and Lands;

**“Ministry”** means Ministry of Natural Resource Operations;

**“Ministry of Forests and Range”** means the Ministry of Forests, Mines and Lands;

**“Net Merchantable Volume”** means unless otherwise specified in the manual, the post reduction cruise volume compiled to the Interior Standard Merchantable Specifications in Table 1-1 of this manual;

**“New Construction”** means the following construction phases: subgrade construction, placement of additional stabilizing material and the construction and installation of drainage and other pertinent structures;

**“Partially Harvested Timber”** means timber that has been felled and/or bucked and not yet forwarded to roadside;

**“Prescribed Minimum Stumpage Rate”** means the minimum stumpage rate prescribed by the *Minimum Stumpage Rate Regulation* (BC Regulation 354/87);

**“Pricing Branch”** means the **Timber** Pricing Branch of the Ministry of Forests, Mines and Lands;

**“Reconstruction and Replacement”** means replacement or structural repair of a major drainage structure (e.g., replacing stringers, cross ties, or cribbing), or major resurfacing, which means resurfacing sections of more than 0.3 km in length that were initially surfaced but have deteriorated due to long term wear and tear, where stabilizing material was not previously used, or major reconstruction, which means restoring at least 0.1 km of road (per occurrence) that requires complete rebuilding of the subgrade;

**“Regional Manager”** means regional executive director of the Ministry of Natural Resource Operations or except for section 1.2.1(1)(a), the regional executive director’s designate;

**“Regulations”** means regulations under the *Act*;

**“Remedial Fence and Wing Fence”** means a fence that is required to remedy, reduce or manage the impact of timber harvesting activities on range management;

**“Road Permit”** means road permit or road timber mark;

**“Salvage”** except as provided in section 6.4, means a cutting authority area where greater than one-third of the net coniferous cruise volume is attacked by mountain pine beetle or other pests;

**“Scale Based”** means the stumpage payable is based on a scale of the timber in accordance with Part 6 of the *Act*;

**“Single Unit”** means a cutblock has one continuous boundary and it is not made up of two or more pieces separated by timber that is not within the gross area of the cutblock from the cruise compilation;

**“Species Net Volume”** is the species net volume reported in the appraisal summary report from the cruise compilation for the cutting authority area;

**“Stand as a Whole (SAAW) Pricing”** means that one stumpage rate is determined for all of the net merchantable timber on the cutting authority area. In a cruise based cutting authority, the single stumpage rate applies to all of the net merchantable volume identified in the cruise conducted in accordance with the *Cruising Manual*,

**“Stud Log Percent”** means the net volume of 5 m logs with top diameters under 20 cm expressed as a percentage of the total net cruise volume. The stud log percent is rounded to the nearest whole percentage point;

**“Stumpage Appraisal Parameter”** means:

- |                                   |  |
|-----------------------------------|--|
| a. Interior average market price, | e. US Dollar Exchange rate,                      |
| b. Interior base rate,            | f. Lumber and Chip Average Market Values,        |
| c. Interior mean value index,     | g. Interior Basic Silviculture Costs by Species, |
| d. BC Consumer Price Index,       | e. Final Neutrality Adjustment.                  |

**“Suitable Secondary Stand Structure Survey”** means a suitable secondary stand structure survey as defined in Section 1(4) of the *Forest Planning and Practices Regulation*

**“Timber Harvesting”** means the felling or removal of timber other than on road rights-of-way or landings on a cutblock;

**“Timber Sales Manager”** means the Timber Sales Manager or the Timber Sales Manager’s designate;

**“Total Net Coniferous Volume”** is the total of the species net volumes for all coniferous species on the cutting authority area;

**“Total Net Cruise Volume”** means the sum of the species net cruise volumes reported in the appraisal summary report from the cruise compilation for the cutting authority area;

**“Total Net Deciduous Volume”** is the total of the species net volumes for all deciduous species on the cutting authority area,

**“Tributary Cutting Authority Area”** means a cutting authority area from which timber must be transported over the road that is developed, or a cutting authority area to which bulk fuels, supplies, equipment and harvesting crews necessary to carry out the day-to-day harvesting activities on that area must be taken on a regular basis over the road that is developed.

## 1.2 Terms of Reference

1. Pursuant to section 105 of the *Forest Act* the provisions of this manual are policies and procedures to be used in the determination, redetermination and variance of stumpage rates in the Northern Interior Forest Region and in the Southern Interior Forest Region and Manning Park.

### 1.2.1 Responsibility for Stumpage Rate Determination

1. The following employees are authorized to determine, redetermine and vary rates of stumpage:
  - a. director and employees of Pricing Branch of the Ministry of Forests, Mines and Lands.
  - b. regional managers, regional timber pricing co-ordinators, and employees of the regional revenue sections of the Ministry of Natural Resource Operations.
2. The employees of the Timber Administration section, Resort Development Branch of the Ministry of Natural Resource Operations are authorized to determine or redetermine stumpage rates in accordance with section 6.8(1) or (2).

### 1.2.2 Stumpage Appraisal Parameters

1. The stumpage appraisal parameters are compiled, calculated, and/or adopted by Pricing Branch.
2. Once approved by the director they become an integral part of this manual.
3. The parameters are published by Pricing Branch.
4. Current and historical parameters may be found at the following web site:

<http://www.for.gov.bc.ca/hva/>

### 1.2.3 Minimum Stumpage Rate

A stumpage rate determined using this manual shall not be less than the prescribed minimum stumpage rate.

### 1.3 Numbering and Calculation Conventions

1. The following exemplifies the numbering system used in this manual:

- 1. = Chapter.
- 1.1 or 1.1.1. = Section.
- 1.1.1 (2) = Section with subsection.
- 1.1.1(2)(a) = Section with subsection and paragraph.
- Table 4-2 = Table 2 within chapter 4.

2. The calculation of the Interior Average Market Price must be performed in accordance with the specifications contained in the documents titled: “*Specifications: The Interior Market Pricing System*” as updated from time-to-time, and “*Interior Market Pricing System-Update*” as updated from time-to-time.
3. Where a value is specified as a limit, for example a constraint or a requirement for an equation,
  - a. The value will be treated as an absolute value, and
  - b. An actual measurement or record will not be rounded before use unless otherwise specified in this manual.
4. Each calculation of a tenure obligation adjustment or specified operation expressed in dollars per cubic metre will be rounded to the nearest cent.



## **1.4 Cutblocks within a Cutting Authority Area**

1. Cutblocks within a cutting authority area must:
  - a. Constitute a single unit,
  - b. Be within the same forest district,
  - c. Be tributary to a common point of appraisal (unless included in a blanket salvage permit),
  - d. Must not exceed a maximum distance of ten kilometres between the furthest boundaries of the furthest cutblocks, except when required for blanket salvage.
2. A cutting authority shall not include both an authorization to harvest on a cutblock where 35% or more of the net merchantable coniferous timber is red and grey mountain pine beetle attacked Lodgepole pine and an authorization to harvest on a cutblock that does not have those same characteristics.

## 1.5 Appraisal Data **Submission** Requirements

### 1.5.1 **Cruise Information**

1. Unless otherwise specified by the Director, cruise data must be gathered and compiled according to the approved interior standard timber merchantability specifications in Table 1-1 below and in accordance with the following Ministry of Forests, Mines and Lands publications:
  - a. *Cruising Manual* at the following web site:  
<http://www.for.gov.bc.ca/hva/manuals/cruising.htm>
  - b. *Cruise Compilation Manual* at the following web site:  
<http://www.for.gov.bc.ca/hva/manuals/cruise compilation.htm>
2. When cruise information is submitted to the district manager or the regional manager in order to determine a stumpage rate or an upset stumpage rate, that information must include:
  - a. The Cruise Compilation Report, and
  - b. The ASCII data files.
3. When requested by the district manager, a copy of the original field data must be supplied by the licensee.

**Table 1-1 Interior Standard Timber Merchantability Specifications**

<b>Description</b>	
The following standard timber merchantability specifications must be used for all appraisals.	
Stumps (Measured on the side of the stump adjacent to the highest ground.)	
no higher than	30.0 cm
Diameter (outside bark) at stump height	
lodgepole pine: all timber that meets or exceeds	15.0 cm
all other species: all timber that meets or exceeds	20.0 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	10.0 cm
Top diameter (inside bark or slab thickness)	
for cedar older than 141 years, all timber that meets or exceeds	15.0 cm
Minimum length	
log or slab	3.0 m

### 1.5.1.1 Comparative Cruise Data

1. Comparative cruise data is cruise data from an existing cutting authority area with similar stand and terrain characteristics that is used in the appraisal of a new cutting authority area.
2. The district manager may require the selection of a comparable cutting authority to be in accordance with procedures set out in section 2.10 of the *Cruising Manual*.
3. Except for subsection (5), if there is time to perform a full cruise, then the timber will be cruised.
4. If there is insufficient time to perform a full cruise then comparative cruise data may be utilized:
  - a. For cutting authorities with volumes greater than 5 000 m<sup>3</sup> if:
    - i. the area is in an approved Emergency Bark Beetle Management Area (EBBMA) as designated by the Minister and within an approved Emergency Management Unit (EMU) as designated by the beetle management coordinator,
    - ii. the licensee has previously harvested comparative cutting authorities in a timely manner, and
    - iii. the regional manager has determined that the requirement to perform a full operational cruise will delay expeditious harvesting and result in further damage.
  - b. When the stumpage rate is determined according to section 6.2(5).
5. Comparative cruise data may be utilized when the stumpage rate is determined according to section 6.2.1(1)(c)(ii) and 6.7(4).

### 1.5.2 Appraisal Data Forms

1. Unless otherwise specified in paragraph (b) of this section, the form of ADS required by the director for:
  - a. The Market Pricing System is the Electronic Commerce Appraisal System (ECAS) which can be found at:

<http://www.for.gov.bc.ca/hva/ECAS/index.htm>

A submission in ECAS must be signed by a forest professional.

- b. Miscellaneous timber pricing is the Interior Stumpage Rate Request Form (short form). Contact the appropriate Regional office for the form. The short form must be signed by a forest professional unless appraised under sections 6.1.1, 6.1.2 or 6.3.

### **1.5.3 Appraisal Map**

The appraisal map must be completed in accordance with the requirements of Appendix IV and must be submitted with the ADS in ECAS.

# **Appraisals, Reappraisals and Stumpage Adjustments**

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**2**

## 2.1 Appraisal Process

1. Except where the sawlog stumpage rate or an upset stumpage rate is determined in section 5.1 or chapter 6:
  - a. an appraisal process **is** used to determine a stumpage rate for a cutting authority area using the manual in effect on the effective date of the cutting authority.
  - b. the appraisal is effective on the effective date of the cutting authority.
2. **In accordance with section 1.5.2, a forest professional on behalf of a licensee or BCTS shall submit an ADS to the district manager when the licensee or BCTS makes an application for a cutting authority.**
3. The district manager may review the **ADS**, and may inform the **forest professional**, of any omissions **or errors**, or provisions of the manual that, in the opinion of the district manager, **the forest professional** may not have considered.
4. The **forest professional** may consider the district manager's information and may revise the **ADS**.
5. The district manager shall give any information supplied by the **forest professional** under this section to the person who determines the stumpage rate together with any other information that the district manager considers relevant to the appraisal.
6. The person who determines the stumpage rate may review the **ADS**, and information supplied by the district manager, and may inform the **forest professional**, of any omissions **or errors**, or provisions of the manual that, in the opinion of the person who determines the stumpage rate, the **forest professional** may not have considered.
7. The **forest professional** may consider the notification and may revise the **ADS**.
8. The person who determines the stumpage rate shall consider:
  - a. the information provided by the **forest professional**,
  - b. **the information provided by** the district manager, **and**
  - c. any **other** information available to the person who determines the stumpage rate that is relevant to the appraisal.
9. **The information in ECAS may be changed by the person who determines the stumpage rate in order to determine the stumpage rate.**

10. Regional revenue staff will notify:
- a. the licensee of the stumpage determination, or
  - b. BCTS of the upset rate determination.

## **2.2 Reappraisals**

1. Where these policies and procedures require a reappraisal to be performed, the stumpage rate must be redetermined in accordance with the relevant policies and procedures that are or were in effect as the case may be on the effective date of the reappraisal.
2. Except as provided in sections 2.2.1(1)(e), and 2.2.3 or otherwise directed by the Minister in section 2.2.2.1, a reappraisal is based on a complete reassessment of the cutting authority area at the time of the reappraisal, as if the area has been returned to the condition it was in prior to development or harvesting.
3. At the time of a reappraisal, initial detailed engineering cost estimates may be re-estimated once after construction in accordance with section 4.3.3.

### **2.2.1 Changed Circumstances**

1. In this manual a changed circumstance means a circumstance where:
  - a.
    - i. the licensee has used or will use a harvest method to harvest at least fifteen percent of the volume of timber in the cutting authority area that is different from the method used in the most recent appraisal or reappraisal of the cutting authority area, and
    - ii. the different harvest method that has been used or will be used when used in the changed circumstance reappraisal will produce the highest stumpage rate.
  - b. There will be a difference of at least fifteen percent between the total appraised development cost estimate in the changed circumstance reappraisal and the total appraised development cost estimate that was used in the most recent appraisal or reappraisal where the change is caused by circumstances other than a change in the manual or a change as a result of a stumpage adjustment.
  - c. Land containing merchantable timber has been either added to or deleted from the cutting authority area since the most recent cruise compilation or recompilation was used in an appraisal or reappraisal that exceeds the lesser of:
    - i. fifteen hectares, or
    - ii. fifteen percent of the area of the cutting authority area as it was prior to the addition or deletion of the land.



- d. The stumpage payable on timber harvested on a cutting authority area is calculated using the information provided by a cruise of the timber before the timber is cut, and land containing merchantable timber has been added to or deleted from the cutting authority area that exceeds the lesser of:
  - i. five hectares, or
  - ii. five percent of the area of the cutting authority area as it was prior to the addition or deletion of the land.
- e.
  - i. except where timber on a cutting authority area has been damaged by a fire for which the licensee was responsible and the licensee failed to comply with the *Wildfire Act* or *Wildfire Regulations*, where timber is authorized for harvest under a cutting authority that has either a fixed stumpage rate or a stumpage rate that is adjusted quarterly and at least fifteen percent of the volume of the timber that was considered in the appraisal of the cutting authority area authorized for harvest under that cutting authority has been suddenly and severely damaged.
  - ii. where the cutting authority area is reappraised because of sudden and severe damage the only timber that can be considered in the reappraisal is the standing timber remaining on the cutting authority area after the sudden and severe damage.
- f. A cutting permit authorizing the harvesting of timber was issued before July 1, 2010 and surrendered on or after July 1, 2010, because of the planned Interior pricing policy changes July 1, 2010, and
  - i. the volume of all of the timber in all of the cutblocks where harvesting has not started, hereinafter referred to as the remaining timber, is greater than twenty-five percent of the volume of timber that was on the cutting authority area when the cutting permit was issued, and
  - ii. the District Manager is satisfied that the remaining timber or harvest method is significantly different from the timber that has been harvested under the cutting permit.
- g. A cutting permit authorizing the harvesting of timber on the cutting authority area was issued before July 1, 2010, timber harvesting has started on the cutting authority area, and
  - i. the right to harvest timber remaining on the cutting authority area hereinafter referred to as the remaining timber has been transferred by the timber sales manager after July 1, 2010 on behalf of the licensee to whom the cutting permit had been issued, and
  - ii. the district manager is satisfied that the remaining timber or harvest

method is significantly different from the timber that was harvested on the cutting authority area prior to the transfer of the right to harvest the remaining timber.

2. Except as provided in subsections 3 or 4 of this section, where a changed circumstance has occurred with respect to a cutting authority area, other than a cutting authority area that is subject of a road permit or a cutting authority area with a non-adjusting stumpage rate, the cutting authority area must be reappraised in accordance with section 2.2.1.1.
3. Where a licensee has notified the ministry in writing that a changed circumstance has occurred and the indicated stumpage rate for the cutting authority area has been less than  $\$0.25/\text{m}^3$  since the cutting authority area was first appraised, and the indicated stumpage rate that would be calculated in a changed circumstance reappraisal would remain less than  $\$0.25/\text{m}^3$ , a changed circumstance reappraisal is not required.
4. Where a licensee has notified the ministry in writing that a changed circumstance has occurred, log transportation activities have been completed on the cutting authority area and the amount of stumpage payable as a result of a changed circumstance reappraisal under section 2.2.1.1 would be reduced, the changed circumstance reappraisal must be done only at the licensee's request.
5. Where a cutting authority is reappraised because of a changed circumstance, any bonus bid or bonus offer in existence does not change and remains in effect.

#### 2.2.1.1 Changed Circumstance Reappraisal Procedure

1. Where the cutting authority was issued prior to August 1, 2005, the licensee must submit an appraisal data submission to the district manager immediately if a changed circumstance has occurred.
2.
  - a. Except for a changed circumstance under section 2.2.1(1)(e), the licensee must submit an appraisal data submission to the district manager within thirty days of completion of log transportation activities or thirty days prior to the expiry of the cutting permit whichever comes first, if the cutting authority must be reappraised because of a changed circumstance under section 2.2.1.
  - b. For a changed circumstance under section 2.2.1(1)(e), the licensee must submit an appraisal data submission to the district manager within thirty days of the date when the event that caused the sudden and severe damage stopped on the cutting authority area.
  - c. Thereafter the changed circumstance procedure for paragraph (a) or (b) of this section is the same as required by section 2.1(2) to 2.1(7).

3. Where the district manager believes that a changed circumstance has occurred under subsections (1) or (2) of section 2.2.1, and the licensee fails to provide the district manager with an appraisal data submission as described in subsection (2) of this section, the district manager may initiate a changed circumstance reappraisal using information that is available to the district manager and may notify the licensee of that action. Thereafter the changed circumstance reappraisal procedure is the same procedure as that required by section 2.1(6) through 2.1(7).

#### 2.2.1.2 Effective Date of a Changed Circumstance Reappraisal

1. Except as otherwise provided in this section, a reappraisal because of a changed circumstance is effective on the day after the effective date of the most recent appraisal or reappraisal of the cutting authority area prior to the changed circumstance reappraisal.
2. Where the cutting authority to which the reappraisal pertains was issued prior to August 1, 2005, and the date of the changed circumstance is on or after July 1, 2010, the changed circumstance reappraisal is effective on the day after the date the changed circumstance reappraisal stumpage rate is calculated.
3. Where the changed circumstance is a result of sudden and severe damage referred to in subsection 2.2.1(1)(e), the effective date of the reappraisal is the first day of the month following the date when the event that caused the sudden and severe damage stopped on the cutting authority area.
4. Where the most recent reappraisal is a changed circumstance reappraisal under section 2.2.3, the reappraisal shall be effective on the day after the effective date of the most recent appraisal or reappraisal of the cutting authority area that is not a reappraisal under section 2.2.3.
5. Where the most recent reappraisal is a Minister's directed reappraisal under section 2.2.2 or a reappraisal under section 2.2.3, the effective date of a reappraisal under sections 2.2.1(1)(f) or 2.2.1(1)(g) is effective on the day after the date of the most recent appraisal or reappraisal of the cutting authority area that is not a reappraisal under section 2.2.2 dated July 1, 2010 or a reappraisal under section 2.2.3.

## 2.2.2 Minister's Direction

1. The Minister may at any time direct the determination, redetermination or variance of a stumpage rate and that,
  - a. a determined, redetermined or varied stumpage rate be effective on any future date, and that,
  - b. the determination, redetermination or variance be made in accordance with any other directions that the Minister may direct.

### 2.2.2.1 Minister's Direction Procedure

1. The licensee shall submit to the district manager an interior appraisal data submission, if requested by the district manager within forty-five days of the minister's direction.
2. Thereafter, the procedure for determining, redetermining or varying a stumpage rate under section 2.2.2 shall be the same procedure as that required by subsections 2.1(3) through 2.1(7) except as may otherwise be directed by the minister.

## 2.2.3 Reappraisals Due to Insect Damage

1. a. A cutting authority with an adjustable stumpage rate or a cutting authority issued under a licence entered into under Section 21 of the *Act* as it was before it was repealed may be reappraised on or after April 1, 2006 only twice under this section during the term and all extensions of the cutting authority on the basis of a revised appraisal data submission if the licensee submits a revised appraisal data submission to the District Manager.
- b. The revised appraisal data submission is the appraisal data submission that was used in the most recent appraisal or reappraisal of the cutting authority area prior to the revision, hereinafter referred to in this section as the original ADS, with changes permitted only to the cruise data in the original ADS in accordance with the paragraphs (c) and (d) of this subsection.
- c. The licensee may either:
  - i. update the insect attack code information from the field for each species of timber in the cruise data for codes 1, 2, 3, 5, 6, 7 and 8 as defined in the *Cruising Manual* and recompile the cruise for the cutting authority area by using the cruise data from the cruise in the original ADS for the plots in that part of the cutting authority area where timber has been harvested and combining that with the cruise data with updated insect attack codes for the plots in that part of the cutting authority area where timber has not been harvested, or
  - ii. recompile the cruise data that was in the cruise in the original ADS.

- d. If a cutting authority area is reappraised in accordance with section 2.2.1.1 and the effective date of the changed circumstance reappraisal is prior to a reappraisal for that cutting authority area under section 2.2.3, then cutting authority area shall be reappraised subsequent to the changed circumstance reappraisal using only the same information and effective date as the original reappraisal under section 2.2.3 (except for information that has changed as a result of the changed circumstance reappraisal under section 2.2.1).
- e. Notwithstanding any other paragraph of this section, other data must be changed if it is required by the manual in effect at the time of the reappraisal and was not submitted in the original ADS.

#### 2.2.3.1 Insect Damage Reappraisal Procedure

- 1. The insect damage reappraisal procedure is the procedure required by section 2.1(2) through 2.1(7).

#### 2.2.3.2 Effective Date of an Insect Damage Reappraisal

- 1. The effective date of an insect damage reappraisal is the first day of the month following the month in which the District Manager receives the revised appraisal data submission.

## 2.3 Stumpage Adjustments

1. Unless otherwise specified by this manual or by the Minister, and subject to section 6.6, a stumpage rate must be adjusted quarterly on each of January 1, April 1, July 1 and October 1, of each year.
2. The adjustment will be the recalculation of the stumpage rate that was determined in the most recent appraisal or reappraisal by using:
  - a. the appraisal data used in the most recent appraisal or reappraisal,
  - b. the manual in effect on the effective date of the most recent appraisal or reappraisal, and
  - c. the stumpage appraisal parameters that the Director approves for use in the recalculation of stumpage rates for that quarter.
3. Woodlot Adjustable Stumpage Rates:
  - a. The stumpage rate for a cutting authority issued under a woodlot licence shall be an adjusting stumpage rate unless:
    - i. the stumpage rate for the cutting authority is changed to a non-adjusting stumpage rate under this subsection, or
    - ii. the cutting authority is a road permit, or blanket salvage cutting permit, or
    - iii. the stumpage rate has been determined under sections 6.1.2, or 6.6.
  - b. A licensee may choose to have an adjusting stumpage rate changed to a non-adjusting stumpage rate under this subsection by giving written notice to the regional timber pricing co-ordinator.
  - c. Where the licensee gives written notice to the regional timber pricing co-ordinator of that choice, the adjusting stumpage rate shall become a non-adjusting stumpage rate three (3) weeks after the regional timber pricing co-ordinator receives the notice.
  - d. On the date that the stumpage rate becomes a non-adjusting stumpage rate, the stumpage rate for the cutting authority continues to be the stumpage rate that was in effect on that date.
  - e. Where a stumpage rate is changed from an adjusting stumpage rate to a non-adjusting stumpage rate, the stumpage rate for the cutting authority shall not change for the term of the cutting authority and all extensions from the date that the stumpage rate is changed to a non-adjusting stumpage rate, except where the cutting authority area is reappraised under section 2.2.1(1)(e) or under section 2.2.2.

## 2.4 Correctable Errors

1. In this section, a correctable error means:
  - a. an error in transcribing or compiling approved cruise field data or in the application of approved loss factor and taper equations,
  - b. an error in a calculation made as part of the appraisal data submission,
  - c. an error in transcribing the data from an appraisal data submission or in performing the calculations specified in the manual, or
  - d. an error in the application of published appraisal parameters.
2. Where a person believes that a correctable error has been made in a stumpage determination, that person shall give written notice of the correctable error as follows:
  - a. in the case of an appraisal or a reappraisal, the notice shall be given to the regional manager, and in the case of a quarterly adjustment, the notice shall be given to the director, and
  - b. the notice shall identify the stumpage determination, the correctable error, and the cause of the correctable error to the extent reasonably possible.
3. The regional manager or the director, upon receipt of the notice shall determine whether or not a correctable error was made.
4. Where the regional manager or the director determines that a correctable error has not been made, the person who determined the stumpage rate or director shall notify the person who gave the notice of the correctable error.
5. Where the regional manager or the director determines that a correctable error has been made, then:
  - a. the regional manager or the director will notify the person who gave the notice of the correctable error,
  - b. the regional manager or the director will take reasonable steps to ensure that all licensees who may have been affected by the error are informed of the decision, and
  - c.
    - i. where the regional manager determines that a correctable error has been made in an appraisal or a reappraisal the cutting authority area shall be reappraised to correct the error by the person who determined the stumpage rate, using the procedure under subsections 2.1(2) to 2.1(7), and,
    - ii. the effective date of the reappraisal shall be the first day of the month following the date on which the notice of the correctable error was received

by the regional manager.

- d. i. where the director has determined that a correctable error has been made in the calculation of a quarterly stumpage adjustment, the adjustment must be correctly recalculated unless the cutting authority, the appraisal manual or the application and tender for a timber sale licence specifies that the stumpage rate is fixed, and
- ii. the effective date of the redetermined rate shall be the first day of the month following the date on which the notice of the correctable error was received by the director.



## **2.5 Redetermination of Stumpage Rate by Agreement**

1. Where, within twenty-one days of the date of a Stumpage Advisory Notice, the person to whom the Notice has been sent and an employee authorized to redetermine a stumpage rate under section 1.2.1 of this manual agree, the stumpage rate set out in the Notice, hereinafter referred to as the original stumpage rate, may be redetermined by the employee in accordance with manual in effect on the effective date of the original stumpage rate, and the redetermined stumpage rate shall be effective on the effective date of the original stumpage rate.
2. The twenty-one day period referred to in subsection (1) of this section may be extended by agreement between the person to whom the Notice has been sent and the employee.

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### 3.5.1.3 Secondary Haul

Secondary haul is when logs must be truck hauled between the dewater and reload site to the appraisal point.

### 3.5.2 Point of Appraisal

1. The points of appraisal that may be considered for use in the appraisal are set out in Table 3-4.
2. The point of appraisal that when used in the calculation of the stumpage rate will produce the highest stumpage rate for the cutting authority area is the point of appraisal used unless:
  - a. five years have passed from the date that a milling facility was permanently rendered incapable of producing lumber and chips, and
  - b. it was the only milling facility associated with that point of appraisal.
3. Where a point of appraisal cannot be selected under subsection (2) of this section because of the conditions of paragraphs (a) and (b) of that subsection, the point of appraisal that produces the next highest stumpage rate is used.
4. The process in subsection (3) of this section is continued until a point of appraisal can be selected without being excluded by the conditions of paragraphs (2)(a) and (b).
5. Except for Table 3-3 and Appendix VI, the selling price zone in Table 3-4 for the point of appraisal selected under paragraphs (2), (3) or (4) must be used in the appraisal.

**Table 3-4 Points of Appraisal**

Northern Interior (Zone 5)			
Bear Lake	Fort St. James	Mackenzie	Smithers
Burns Lake	Fraser Lake	Prince George	Strathnaver
Clear Lake	Houston	Quesnel	Vanderhoof
Engen	Isle Pierre		

Skeena (Zone 6)		
Terrace	Hazelton	Kitwanga

Southern Interior (Zone 7)			
Adams Lake	Galloway	Merritt	Thrums
Armstrong	Grand Forks	Midway	Valemount
Canal Flats	Kamloops	Okanagan Falls	Vavenby
Canoe	Kelowna	Princeton	Westbank
Castlegar	Lavington	Radium	Ymir
Craigellachie	Lumby	Revelstoke	
Creston	McBride	Slocan	
Elko			

South Cariboo (Zone 8)				
100 Mile House	Chasm	Lytton	Squamish	Williams Lake

Fort Nelson - Peace (Zone 9)	
Chetwynd	Fort St. John

- The following Points of Appraisal will expire on the dates indicated: Okanagan Falls (November 30, 2012), Kamloops (May 12, 2013).

- a. dismantling the materials at the site where they were previously used,
  - b. transporting the materials to the project location, and
  - c. installing the materials at the project location.
9. No costs authorized for use in an appraisal under this section may be used in an appraisal as road management costs.
10. No development costs for a project may be included in an appraisal or reappraisal where they have been paid for by another party, including the provincial or federal government.
11. Where a road that is administered by the Ministry of Transportation and Infrastructure requires reconstruction or an upgrade in order to be used for the hauling of Crown timber, the cost of the project may not be used in an appraisal or reappraisal unless:
  - a. the use of the cost of that project has received prior approval from the director of Pricing Branch, and
  - b. it is based on competitive bids from persons operating at arm's length from the licensee that undertakes the project.
12. Where the cost of an authorized project is shared by two or more licensees, a licensee's share of the total development cost estimate may be apportioned in accordance with section 4.3.1.1.4.
13. Where a reconstruction and replacement project was not planned at the time of the appraisal of the first cutting authority area and was not used in either the appraisal or reappraisal of that cutting authority area, the cost estimate of that project may be used in the appraisal of the tributary cutting authority area from which harvested timber is the first to be transported over that project.
14. The development cost estimate for a reconstruction or replacement project may not exceed the development cost estimate that would have been made if the project had been a new construction project at that same location.
15. No cost may be considered in an appraisal or reappraisal if the cost was as a result of the licensee's negligence, failure to follow an approved plan, or failure to comply with the law.

**4.3.1 (This Section has been left blank)****4.3.1.1 Development Cost Allocation**

Where proration is required for section 4.3.1.1.1 and 4.3.1.1.2:

$$\text{Crown Share} = \text{Total Estimated Cost} * \frac{\text{Appraised Timber Volume}}{\text{Total Timber Volume}}$$

Where:

Crown Share (\$)	=	Dollar amount to be allocated to stumpage-bearing timber in the cutting authority being appraised.
Total Estimated Cost (\$)	=	Dollar amount of the total development cost estimate.
Appraised Timber Volume (m <sup>3</sup> )	=	Volume of Crown timber that is tributary to the project and under the control of the licensee or a company legally associated with the licensee, including volume in all areas contributing to the allowable annual cut determination.
Total Timber Volume (m <sup>3</sup> )	=	Total volume of Crown and private timber that is tributary to the project and under the control of the licensee or a company legally associated with the licensee.

In all cases volumes are estimated from the latest approved operational or inventory cruise data and maps of the area within the drainage to the height of land.

The Crown share is a dollar amount which is included in the appraisal of a tributary cutting authority, subject to section 4.3.1.1.4.

Development cost estimate is allocated according to the outline below (see also Appendix II).

**4.3.1.1.1 Development Cost Estimates on Crown Lands**

1. Development providing access to appraised timber only:

Total estimated costs are included in the appraisal.

2. Development providing access to non-appraised timber only:

Cost estimates are not included in the appraisal.

3. Development in appraised timber areas providing access to both appraised and non-appraised timber held by the licensee or a company legally associated with the licensee:

All costs are prorated between appraised and non-appraised timber. The appraised timber portion is then included in the appraisal.

#### **4.3.1.1.2 Development Cost Estimates on Private Land**

1. When a new or reconstructed road or structure on private land is required for Crown timber extraction, the estimated cost of the road or structure will be included in the appraisal of a tributary cutting authority according to the procedures of section 4.3.1.1 and the following:
  - a. If development provides access to appraised timber only, the total estimated costs are included in the appraisal.
  - b. If development provides access to non-appraised timber only, cost estimates are not included in any appraisal.
  - c. If development provides access to both non-appraised and appraised timber, all cost estimates are prorated between non-appraised and appraised timber (section 4.3.1.1) and then the Crown portion is included in the appraisal.

#### **4.3.1.1.3 Existing Roads and Structures**

1. The following are defined as existing roads for the cutting authority being appraised and are not eligible for inclusion in development cost estimates:
  - a. Constructed roads that have been previously considered in appraisals of Crown timber within another cutting authority.
  - b. Roads previously constructed and used to haul non-appraised timber (excluding right-of-way).
  - c. Roads previously constructed all or in part for purposes unrelated to logging the cutting authority area being appraised.
  - d. Roads previously constructed, repaired or reconstructed on private land before August 1, 1996.
2. Winter roads over muskeg or organic soils that use snow and ice for a driving surface are not considered as existing roads.
3. If the existing road requires reconstruction or replacement after August 1, 1996, the cost estimate is made as described in section 4.3. If the existing road is on private land, road and land use charges may be included in the appraisal as per section 4.4.1.
4. A road on private land that has previously been included in an appraisal because it was required for only short term timber extraction shall continue to be included upon reappraisal.

#### 4.3.1.1.4 Extended Road Amortization

1. Except as provided in subsection (3), where the development cost estimate for an authorized project in respect of a road accessing more than one tributary cutting authority exceeds \$4.00 per cubic metre, the regional manager may enter into a written agreement with the licensee which authorizes the distribution of the development cost estimate between or among, as the case may be, two or more tributary cutting authorities that are issued under the licence under which or because of which the authorization was given.
2. The agreement is subject to the following conditions:
  - a. Future tributary timber included in the extended road amortization agreement must be either within the woodlot licence or an approved cutting permit or cutblocks shown in the licensee's forest development plan, woodlot licence plan or forest stewardship plan in effect on the appraisal effective date.
  - b. The road portion that may be included in the agreement ends at the far boundary of the first cutting authority being appraised.
  - c. The agreement must indicate the cost estimate that is being distributed to each existing or future cutting authority in the agreement.
  - d. The agreement must be signed by the licensee and the regional manager.
  - e. The costs apportioned to each cutting authority under the agreement may be adjusted once, in conjunction with this section, at reappraisal using the same ratio for distributing the costs as in the original agreement provided harvesting has not commenced on any of the cutting authority areas included in the agreement.
  - f. Previously apportioned costs are not used to exceed the \$4.00/m<sup>3</sup> in subsection (1) of this section.
  - g. The agreement is entered into only for the purposes of calculating a stumpage rate and confers no obligation on the Crown to compensate the licensee for any unamortized costs.
3. The regional manager will not enter into any new extended road amortization agreements for cutting permits issued under a woodlot licence with an effective date after November 30, 2008.

#### 4.3.2 Tabular Cost Estimates

Tabular costs are determined using the procedures and criteria in this section for the total length of road that the submitting professional certifies is required to remove the timber from the cutting authority area.



#### 4.3.2.1 Subgrade Construction

The subgrade construction cost estimate includes:

- clearing,
- grubbing,
- stripping,
- debris disposal,
- stump removal,
- ditch construction,
- turnout construction (not landings),
- material costs, and
- installation of culverts with diameters under 950 mm or the equivalent cross-section area or single log abutment culverts up to 3.4 m span.

Right-of-way felling and logging is excluded.

#### 4.3.2.2 Subgrade Construction Variables

For appraisal purposes the following subgrade construction variables are recognized:

1. Section length: (L)
  - a. Each section should be representative of a single moisture class. Section lengths are recorded to the nearest 0.1 km. Each section should be 1 km or longer, although some individual section lengths less than 1 km but greater than or equal to 0.100 km are acceptable for extreme variations of slope or percent rock. The section length includes that portion traversing through landings. For ground skidding, short roads (up to and including 100 m long) that access single landings are included in the MPS equation (section 3.4) and are not eligible for development cost estimates.
  - b. All road segments less than 0.100 km, excluding short ground skidding spurs less than 0.100 km, are to be aggregated with other adjacent road segments, making appropriate adjustments to average site conditions using the distance-weighted averages for the site variables for that section.
  - c. A short spur road less than 0.100 km that does not access a single landing may be aggregated with a similar stand-alone non-adjacent road section.

## 2. Road Types :

- **Snow/Ice Road** : - A snow/ice road is a single lane seasonal winter road including turnouts, with a flat road profile that is built with a combination of snow, ice and dirt, on a surface that may or may not have been stumped. The driving surface is built up using multiple layers of snow and ice such that extra stabilizing material costs are not applicable. A flat road profile means the side slope is less than or equal to 15% and there is minimal side cut. Minimal means that cuts into mineral or organic soil must not exceed 0.5 m in depth for distances up to 0.1 km. Seismic lines being used for roads, that have not previously been used as roads, will be considered as new construction and qualify as snow/ice roads provided they fall within the above criteria.
- **Long Term (LT)** - A long term road is a road with a continuous raised sub-grade and ditch line (the raised sub-grade and ditch line may be interrupted for short section <100 m in length (e.g., when crossing a short section of rock or at the crest of a hill). In flat terrain the ditch line may simply be the depression created when sub-grade material is excavated to create a raised sub-grade.
- **Short Term (S)** - A short term road is a road with the stumps removed and a bladed running surface. There may be elements of ditching and elevated grade, particularly around wet areas but these features are not continuous.

## 3. Uphill Side Slope: (SLOPE %)

Uphill side slope percent may show a variation of (+/- 15% about the average) within any section length and represents the average of all slopes in the section to a maximum of 50%. To derive an average for uphill side slope percent, several representative cross-section measurements are taken along the section length and the sum of one-half of the distance on each side of the measurement is applied as a weight against the measurement at that cross-section. The uphill side slope percent is measured at right angles to the road centreline and is recorded to the nearest integer. Where the road is located on a bench, the uphill side slope of the bench is used.

## 4.5 Basic Silviculture Cost Estimate

1. The basic silviculture cost estimate includes the cost of all activities that are required to achieve a licensee's free-growing stand obligations (except root disease control) on the cutting authority area.
  - a. A basic silviculture cost estimate may not be included in the TOA unless:
    - i. the licensee is obligated to establish a free growing stand, and,
    - ii. the activity is not funded by another agency.
2. The area of land where an activity is to be applied that may be considered in the basic silviculture cost estimate is the gross silviculture area (GSA) for which the licensee has an obligation to establish a free-growing stand. The GSA includes the net merchantable area (NMA) from the cruise.
3. Table 4-5 lists the cost estimates (\$/ha) for Biogeoclimatic Ecosystem Classification (BEC) zone, subzone, and variant combinations across the interior. Where the subzone/variant combination is not listed in the table, the BEC undifferentiated subzone "un" cost estimate is used.
4. Where a cutting authority area includes more than one BEC zone/subzone/variant combination, a prorated BEC zone/subzone/variant cost estimate will be determined by prorating the cost estimates from Table 4-5 for the primary and secondary BEC combination identified in the appraisal data submission based on their respective percent by net merchantable area identified in the appraisal data submission.
5. The basic silviculture cost estimate is calculated as follows:

$$\text{Basic Silviculture } (\$/\text{m}^3) = \frac{[\text{NMA} * \text{Cost} * (\text{CAPCUT}\%/100) * 1.25] + [(\text{GSA} - \text{NMA}) * \text{Cost}]}{(\text{TNCV or NMV})^1}$$

<sup>1</sup> For scale based CAs, use TNCV. For cruise based CAs use NMV.

Where:

NMA	=	Net merchantable area (ha) from the cruise appraisal summary report. This area must be the same area directly attributable to the appraised net merchantable volume for the cutting authority.
Cost	=	Prorated BEC zone/subzone/variant cost (\$/ha) from Table 4-5.
TNCV	=	Total Net Coniferous Volume (m <sup>3</sup> ).

GSA = Gross silviculture area (ha) within the cutting authority area for which the licensee has free-growing obligations and has not yet received a basic silviculture cost estimate in any appraisal. For the purpose of this section the GSA cannot be less than the NMA and includes any pre-harvested areas outside the NMA of a fully appraised cutting permit that the licensee is responsible for silviculture.

NMV = Net merchantable volume (m<sup>3</sup>) for the cutting authority area from the cruise appraisal summary report.

PCUT = Partial cutting includes all forms of harvesting, other than clear cutting.

Clear cutting is defined as those areas with block opening sizes equal to or greater than 1 hectare and where the volume removal is equal to or greater than 90 percent based on the net volume measured to the Interior Standard Timber Merchantability Specifications (section 1.5).

Partial cut areas that have less than 90 percent volume removal are not to be averaged with those areas that are equal to or greater than 90 percent. Clear cut areas are to be stratified out before calculating an overall weighted partial cut percent for the cutting authority.

Where a partial cut is comprised of openings of less than 1 hectare in size, the PCUT percent is based on the cumulative volume of these openings divided by the volume of the block area surrounding them.

$$PCUT = \frac{\text{Net cruise volume required to be removed using a partial cut system}}{\text{Total net cruise volume on the area where Partial Cutting is required}} * 100$$

(except if partial cut percent  $\geq 90\%$ , then PCUT = 0)

CAPCUT = Cutting Authority (CA) partial cut %. If CAPCUT%  $> 80\%$   
CAPCUT% = 80, otherwise:  
CAPCUT% = (CA NMV/CA Gross NMV) \* 100

$$\text{CA Gross NMV(m}^3\text{)} = {}^V\text{GS(C)} + ({}^V\text{GS(P)} / \text{GS(PCUT/100)}) + {}^V\text{OC(C)} + ({}^V\text{OC(P)} / \text{OC(PCUT/100)}) + {}^V\text{SK(C)} + {}^V\text{Horse(C)} + {}^V\text{Heli(C)} + ({}^V\text{Heli(P)} / \text{Heli(PCUT/100)})$$

Where:

PCUT	=	Logging method PCUT (%)
CAPCUT	=	Cutting Authority (CA) partial cut percent
v	=	Net merchantable volume (m <sup>3</sup> ) required to be logged by each system
Heli (C)	=	helicopter logging (clear cut)
Heli (P)	=	helicopter logging (partial cut)
Horse(C)	=	horse logging (clear cut)
GS (C)	=	ground skidding (clear cut)
GS (P)	=	ground skidding (partial cut)
OC(C)	=	overhead cable logging (clear cut)
OC(P)	=	overhead cable logging (partial cut)
SK(C)	=	skyline logging (clear cut)

#### 4.5.1 Root Disease Control

1. Costs for root disease control may only be included in the calculation of the TOA when the treatment is required in a Site Plan, is indicated on the appraisal map, or meets the requirements in this manual.
2. The cost estimates are determined on the basis of information at hand using the procedures approved by the region or Pricing Branch.

#### 4.5.2 Total Silviculture Cost Estimate

$$\text{Total Silviculture (\$/m}^3\text{)} = \text{Basic Silviculture (\$/m}^3\text{)} + \frac{\text{Root Disease Control (\$)}}{\text{TNCV or NMV (m}^3\text{)}^1}$$

<sup>1</sup>. For scale based CAs, use TNCV. For cruise based CAs, use NMV.

Table 4-5 BEC Silviculture Cost Estimates\*

BEC Zone	Subzone	Variant	\$/ha	BEC Zone	Subzone	Variant	\$/ha
BWBS	dk	1	1504	ESSF	mcp		1304
BWBS	dk	2	1504	ESSF	mk		1304
BWBS	mw	1	1354	ESSF	mkp		1304
BWBS	mw	2	1604	ESSF	mm	1	1304
BWBS	un		1504	ESSF	mm	2	1304
BWBS	vk		1504	ESSF	mmp	1	1304
BWBS	wk	1	1475	ESSF	mmp	2	1304
BWBS	wk	2	1475	ESSF	mv	1	782
BWBS	wk	3	1475	ESSF	mv	2	969
CWH	un		499	ESSF	mv	3	809
CWH	vh	1	499	ESSF	mv	4	969
CWH	vh	2	499	ESSF	mvp	1	1304
CWH	vm		499	ESSF	mvp	2	1304
CWH	vm	1	499	ESSF	mvp	3	1304
CWH	vm	2	499	ESSF	mvp	4	1304
CWH	vm	3	499	ESSF	mw		1304
CWH	wh	1	499	ESSF	mwp		1304
CWH	wh	2	499	ESSF	un		1304
CWH	wm		499	ESSF	vc		2814
CWH	ws	1	469	ESSF	vc	2	2915
CWH	ws	2	661	ESSF	vcp		1304
CWH	xm	1	499	ESSF	vv		1304
CWH	xm	2	499	ESSF	vvp		1304
ESSF	dc	1	1383	ESSF	wc	1	1847
ESSF	dc	2	1208	ESSF	wc	2	1724
ESSF	dcp	1	1304	ESSF	wc	3	1420
ESSF	dcp	2	1304	ESSF	wc	4	1819
ESSF	dk		1075	ESSF	wcp	2	1304
ESSF	dk	1	1075	ESSF	wcp	3	1304
ESSF	dk	3	1075	ESSF	wcp	4	1304
ESSF	dk	4	1075	ESSF	wk	1	1383
ESSF	dkp		1304	ESSF	wk	2	1397
ESSF	dku		1304	ESSF	wm		1548
ESSF	dv		1304	ESSF	wmp		1304
ESSF	dvp		1304	ESSF	wv		1304
ESSF	mc		1158	ESSF	wvp		1304

# **Stumpage Rate Determination**

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# **5**

## 5.1 Stumpage Rate Determination for a Cutting Authority Entered into Under a BCTS Licence

1. Sections 5.1.1 through 5.1.3 are the policies and procedures for determining a stumpage rate for a cutting authority that is entered into under a BCTS licence.
2.
  - a. The Market Pricing System for BCTS can only be used in the appraisal of a BCTS licence and a forestry licence to cut entered into under Section 47.6(3) of the *Act* where data is available to do a full appraisal.
  - b. Where the data is not available to do a full appraisal of a cutting authority area, the appraisal must use the procedures outlined in chapter 6 of this manual.
3.
  - a. All upset stumpage rates on Section 20 timber sale licences advertised on or after November 1, 2003 and Forestry Licences to Cut entered into under section 47.6(3) of the *Forest Act* are fixed for the term and all extensions except where:
    - i. a reappraisal is done under section 2.2.1(1)(e) due to sudden and severe damage, or
    - ii. a Minister's directed reappraisal is done under section 2.2.2,

### 5.1.1 Indicated Upset Stumpage Rate (IUSR)

1. Except as provided by subsections (2), (3), (4), (5)(b) and (6) of this section, the IUSR for a timber sale licence shall be no less than seventy percent of the final estimated winning bid (FEWB) for that timber sale licence calculated according to section 3.7 **as requested by the Timber Sales Manager**.
2. Where applications for a timber sale licence with an upset stumpage rate determined under subsection (1) of this section have been invited but no applications have been received, the upset stumpage rate for the re-advertised timber sale shall be equal to the rate approved by the Executive Director, **BCTS**.
3. Where the Executive Director, **BCTS**, does not anticipate that applications for a timber sale licence with an upset stumpage rate determined under subsection (1) of this section will be received due to market conditions or timber profile, the upset stumpage rate shall be equal to the rate approved by the Executive Director, **BCTS**.
4.
  - a. The upset stumpage rate for decked timber or partially harvested timber that is over three years old and is administered by BCTS, shall be the prescribed minimum stumpage rate when requested by the Timber Sales Manager.
  - b. The upset stumpage rate for decked timber or partially harvested timber that



- has been decked or felled for three years or less and is administered by BCTS shall be the rate requested by the Timber Sales Manager.
5. a. Except as provided in subsection 5(b) of this section, the upset stumpage rate for a timber sale licence where the volume of deciduous timber to be harvested on the cutting authority area is equal to or greater than sixty percent of the total net cruise volume, shall be determined in accordance with sections 3.4 and 3.7 except that the market price determined under section 3.4 shall use  $CD = 1$ .
  - b. Where an upset stumpage rate for a timber sale licence has been calculated under subsection 5(a) of this section and
    - i. Applications for the licence have been invited but no applications have been received, or
    - ii. The Executive Director, **BCTS** does not anticipate that application for the licence will be received due to market conditions or timber profile,then the upset stumpage rate shall be the rate approved by the Executive Director, **BCTS**.
6. Where the invitation to tender for timber authorized for harvest under a timber sale requires a bonus offer, and the amount of stumpage payable will be based on a cruise of the timber as authorized under section 106 of the *Forest Act*, the upset stumpage shall be:
    - a. the upset stumpage value derived using section 5.1.1(1), or
    - b. the upset stumpage value approved by the Executive Director, **BCTS**.
  7. The upset stumpage rate **or value** determined under subsections (2), (3), (4)(b), (5)(a)(b) and (6) of this section shall not be less than the variable cost to prepare the timber for sale calculated by the Timber Sales Manager.

### **5.1.2 Upset Stumpage Rate**

The upset stumpage rate for a timber sale licence is the greater of:

1. The indicated upset stumpage rate, or
2. the prescribed minimum stumpage rate.

### **5.1.3 Total Stumpage Rate**

1. The stumpage rate is the total of the upset stumpage rate plus the bonus bid or the upset stumpage value plus the bonus offer, if any, that must be paid by the licensee.
2. Where the upset stumpage rate is determined under subsections (1), (2), (3), and (4) of section 5.1.1, the total stumpage rate applies to Grade Code 1 and 2 coniferous sawlogs.
3. Where the upset stumpage rate is determined under subsection (5) of section 5.1.1, the total stumpage rate applies to Grade Code 1 and 2 coniferous and deciduous sawlogs.
4. Where the upset stumpage value is determined under section 5.1.1(6) the upset stumpage value applies to the timber species and volumes specified by the Executive Director, **BCTS**.

## 5.2 Stumpage Rate Determination for a Cutting Authority Other than a Cutting Authority Entered into Under a BCTS Licence, or a Cutting Authority for Which a Stumpage Rate is Determined Under Chapter 6

Sections 5.2.1 through 5.2.5 are the policies and procedures for determining a stumpage rate for a cutting authority other than a cutting authority entered into under a BCTS licence or a cutting authority for which a stumpage rate is determined under chapter 6.

### 5.2.1 Indicated Rate (IR)

1. The IR is the difference between the final estimated winning bid (FEWB) calculated for the cutting authority under section 3.7 and the tenure obligation adjustment (TOA) calculated under section 4.9.
2. Expressed as an equation:

$$\text{IR} = \text{FEWB} - \text{FTOA}$$

### 5.2.2 Reserve Stumpage Rate

The reserve stumpage rate for a cutting authority is determined by selecting the greater of:

1. the indicated rate, or
2. the prescribed minimum stumpage rate.

### 5.2.3 Stumpage Rate

1. Unless otherwise provided in subsection 2 of this section, the stumpage rate is the total of the reserve stumpage rate plus any administration and silviculture levies which may be charged under section 5.2.4.
2. If the cutting authority was **awarded** on the basis of competition, the stumpage rate **is:**
  - a. the total of the **reserve stumpage rate and the bonus bid, or**
  - b. **the total of the reserve stumpage value and the bonus offer.**

**5.2.4 Levies**

1. A silviculture levy may be added to:
  - a. the reserve stumpage rate determined under section 5.2.2,
  - b. the stumpage rate determined under subsections 6.1.3, 6.2(1), 6.2(2) or section 6.5,
  - c. the reserve stumpage rate indicated in Table 6-6 for all species grades 4 and 6 and deciduous sawlogs.
2. The levy is equal to the district manager's or timber sales manager's cost estimate of silviculture costs to be incurred by the Crown.
3. Development/Administration Levy:
  - a. A development levy may be added to the reserve stumpage rate. The development levy is equal to the appraisal cost estimate of road construction provided by the Crown as approved by the regional manager.
  - b. An administration levy may be added to the reserve stumpage rate. The administration levy is equal to the district manager's cost estimate of administration provided by the Crown for preparing a Forestry Licence to Cut for salvage timber. An administration cost estimate is made for every cutting authority where the district office has to prepare all details of a Forestry Licence to Cut for salvage. No levy is applicable to professional applications.
4. The amount of any levy may be re-determined at reappraisal only.

## 6.2 Cutting Authorities With 5 000 m<sup>3</sup> or Less Volume

1. Where the total coniferous volume to be harvested in a cutting authority area is 2 000 m<sup>3</sup> or less, and where the agreement under which the cutting authority authorizing harvesting on the cutting authority area has been issued has a coniferous allowable annual cut of not more than 3 000 cubic metres, or no coniferous annual allowable cut:
  - a. The stumpage rate for each species of coniferous timber in the cutting authority area must be determined using the stumpage rate in Table 6-1 for the forest zone in which the cutting authority area is located, except that,
  - b. Where the agreement holder is not required to establish a free growing crop of trees on the cutting authority area, the stumpage rate for each species of timber shall be
    - i. the sum of the rate determined under paragraph (a) of this subsection and the basic silviculture cost for the species in the forest region, or
    - ii. where the Crown has the responsibility for silviculture, the sum of the rate determined under paragraph (a) of this subsection and the silviculture levy determined under section 5.2.4.
2. Except as provided in subsection 3 of this section, where the total coniferous volume to be harvested on a cutting authority area is 5 000 m<sup>3</sup> or less, and the cutting authority authorizing harvesting on the cutting authority area is a competitively awarded forestry licence to cut, other than a BCTS licence:
  - a. Subject to section 5.2.2 and paragraph (d) of this subsection, the upset stumpage rate for each species of coniferous timber in the cutting authority area will be 70 % of the stumpage rate for that species in Table 6-1 for the forest zone in which the cutting authority area is located, except that,
  - b. Where applications for a forestry licence to cut have been invited with upset stumpage rates determined under this subsection and no applications have been received, the upset stumpage rate for each species of coniferous timber shall be the rate requested by the district manager and approved by the regional manager.
  - c. Where the regional manager does not anticipate that applications for a forestry licence to cut will be received due to market conditions or timber profile, the upset stumpage rate for each species of coniferous timber shall be the rate requested by the district manager and approved by the regional manager.
  - d. Where the Crown is responsible for basic silviculture on the cutting authority area, the upset stumpage rate for each species of coniferous timber in the cutting authority area will be the sum of the stumpage rate determined under paragraphs (a), (b) or (c) of this subsection and the basic silviculture levy determined under section 5.2.4.

3. An upset stumpage rate determined under subsection (2) of this section shall not be less than the district's variable cost per cubic meter to prepare the timber for sale as calculated by the district manager.
4. Except as provided in section 2.2.2, where the upset stumpage rate is determined under subsections 1 and 2 of this section, the total stumpage rate is fixed for the term of the cutting authority and all extensions.
5. a. Notwithstanding subsections (1) or (2) of this section, where the total coniferous volume to be harvested on a cutting authority area is 5 000 m<sup>3</sup> or less, the stumpage rate may be determined in accordance with chapters 1, 2, 3, 4 and 5.
  - b. Where the stumpage rate is determined in accordance with this subsection:
    - i. the cruise data that is used in the appraisal may be from the cruise of a comparable cutting authority as per section 1.5.1.1, and
    - ii. except as provided in section 2.3 the total stumpage rate is adjustable for the term of the cutting authority and all extensions.

### 6.2.1 Forestry Licences to Cut for Specific Purposes (No Volume Limit)

1. a. Where the cutting authority is a forestry licence to cut awarded to the highest bidder, other than a BCTS licence and it has been issued:
  - i. For the purpose of protecting a community from wildfire as prescribed under section 1 of the *Forestry Licence to Cut Regulation*, or
  - ii. For the purpose of removing damaged timber from natural stands or plantations where:
    - aa. at least seventy percent of all of the merchantable timber volume on the cutting authority area is Pine that has been damaged by mountain pine beetle, and either
    - bb. at the time of death, the age of the damaged timber was not more than 60 years, or
    - cc. a field survey indicates that the average stems per hectare on the cutting authority area is greater than 2 000 with a minimum diameter at breast height of 5 centimeters, or
  - iii. For the purpose of utilizing post harvest material in piles on landings or at roadside after a waste assessment has been made.

Then, the upset stumpage rate shall be the rate approved by the Regional Manager.

- b. Where the invitation for applications for a forestry licence to cut awarded to the highest bidder referred to in paragraph (a) of this subsection requires a bonus offer, and the amount of stumpage payable will be based on a cruise instead of a scale of the timber under section 106 of the *Act*, the upset stumpage rate shall be

- the rate approved by the Regional Manager.
- c.
    - i. Where the cutting authority is a forestry licence to cut issued for the purpose referred to in paragraph (a)(ii) of this subsection and it is awarded directly to the holder of a Ministry site preparation or site rehabilitation contract that was awarded to the lowest eligible bidder, the coniferous sawlog stumpage rate for all timber harvested on the cutting authority area will be \$1.20/m<sup>3</sup>.
    - ii. Where the cutting authority is a forestry licence to cut awarded directly to the holder of a Ministry site preparation or site rehabilitation contract that was awarded to the lowest eligible bidder, and it does not meet the criteria described in paragraph (a)(ii) of this section, then the stumpage rate shall be determined using the procedures in chapters 2, 3, 4 and 5.
    - iii. Where the stumpage rate is determined in accordance with paragraph (c)(ii) of this subsection, the cruise data that is used in the appraisal may be from the cruise of a comparable cutting authority as per section 1.5.1.1.
    - iv. Notwithstanding paragraphs (i) or (ii) of this subsection, where the timber from the cutting authority in paragraph (i) or (ii) will be scaled as chips or hogged tree material on site the stumpage rate shall be the prescribed minimum stumpage rate.
  2. An upset stumpage rate determined under this section must be calculated using the *Interior Appraisal Manual* in effect on the date that the rate is determined.
  3. An upset stumpage rate determined under paragraphs (a)(i), (a)(ii) or (b) of subsection (1) shall not be less than the district's variable cost to prepare the timber for sale.
  4. Except as provided in subsections 1(c)(i) or (ii) of this section, where the upset stumpage rate or stumpage rate is determined under this section, the rate shall apply to all species and grades of timber.
  5. Except as provided in section 2.2.2, where the upset stumpage rate or stumpage rate is determined under this section, the total stumpage rate is fixed for the term of the cutting authority and all extensions.

### 6.3 Road and Blanket Salvage Permits

1. a. In this section the area of a forest district or the area of a timber supply area does not include the area of a park located within that district or timber supply area.
- b. In this section the area of a Tree Farm Licence will be included in the area of the district or timber supply area in which it is geographically located.
2. Except as provided in 6.1.2(3) and (5) and subsections (3) and (4) of this section, the stumpage rate for a road permit or a blanket salvage permit shall be the weighted average sawlog stumpage rate:
  - a. from the table provided to the regions by Pricing Branch for all cutting authorities, authorizing harvesting on cutting authority areas that have been fully appraised, that authorize the harvesting of timber in the same forest district in which the road or blanket salvage permit cutting authority area is located, and that are issued under the licence that entitles the licensee to apply for the road or blanket salvage permit, if there is a minimum positive billed volume of 500 cubic metres of coniferous sawlogs from which the weighted average sawlog stumpage rate may be determined, or
  - b. the stumpage rate is the stumpage rate prescribed in Table 6-3 for the smaller of the area of the same forest district or the area of the same timber supply area in which the road permit or blanket salvage permit cutting authority area is located.
3. The bonus bid if applicable will be added to the stumpage rate determined under subsection 2(b).

**Table 6-3 Coniferous Average Sawlog Stumpage Rates by Smallest Geographic Unit**

TSA is Smallest Geographic Unit			
District	Rate (\$/m <sup>3</sup> )	TSA	Rate (\$/m <sup>3</sup> )
Arrow Boundary	12.60	Arrow	12.65
		Boundary	12.44
Cascades	9.71	Merritt	9.88
		Lillooet	1.01
Columbia	3.32	Golden	0.28
		Revelstoke	4.92
Headwaters	10.08	Robson Valley	7.71
Kalum	1.50	Nass	2.05
		Kalum	1.48
Nadina	7.20	Lakes	7.54
		Morice	7.04
Peace	5.54	Dawson Creek	4.56
		Fort St. John	7.08
Rocky Mountain	5.68	Cranbrook	5.34
		Invermere	6.04
Skeena Stikine	12.14	Bulkley	13.79
		Kispiox	6.97
		Cassiar	0.25



## 6.6 Miscellaneous Stumpage Rates

1. Unless otherwise specified in this manual, the stumpage rates, at the time of scale for timber harvested for the purposes described, in the districts listed, in the forest district specific section of Table 6-6 are as prescribed in that table. This table does not apply to cruise based cutting authorities.

**Table 6-6 Miscellaneous Stumpage Rates**

*All Interior Forest Regions*

Species	Code <sup>1</sup>	Product	Reserve Stumpage Rate
All Species	SB	Shake & Shingle Bolts, Blocks and Blanks.	\$5.30/m <sup>3</sup>
All Species	SK	Shakes	\$6.00/m <sup>3</sup>
Cedar	PR	Posts & Rails (Split and Round)	\$3.00/m <sup>3</sup>
All other Species	PR	Posts & Rails (Split and Round)	\$1.20/m <sup>3</sup>
All Species	MT	Mining Timbers	\$3.00/m <sup>3</sup>
All Species	FW	Firewood	\$0.50/m <sup>3</sup>
Yew		All	\$0.25/m <sup>3</sup>
All Species	CH	Wood chips from post-harvest material where a waste assessment has been made <sup>2</sup>	\$0.25/m <sup>3</sup>
All Species	HF	Hogged tree material from post-harvest material where a waste assessment has been made <sup>2</sup>	\$0.25/m <sup>3</sup>
All Species		Grades 4 and 6, except where the upset stumpage rate is determined under section 6.2.1(1)(a) and (b) and 5.1.1(5)(a) and (b)	\$0.25/m <sup>3</sup>
Deciduous Species		All, except grades 4 and 6 and except where the upset stumpage rate is calculated under section 6.2.1(1)(a) and (b) and 5.1.1(5)(a) and (b)	\$0.50/m <sup>3</sup>
All Species	SS	Stakes & Sticks.	\$1.20/m <sup>3</sup>
All Species	XM	Christmas Tree: under 3m 3-5 m over 5 m	\$0.20/each \$1.00/each \$1.50/each
All Species		Logs salvaged below the high water levels of Reservoir Lakes and the Slocan, Kootenay, Mineral, Babine and Ootsa Lakes	\$0.25/m <sup>3</sup>
All Species		Marine Beachcomb	\$0.70/m <sup>3</sup>
All Coniferous		For logs harvested from the following Research Forests: Alex Fraser (UBC), Aleza Lake (UBC and UNBC), College of New Caledonia (CNC), and Fort St. James (UNBC)	\$0.25/m <sup>3</sup>
All Species		Firmwood Reject	NIL

<sup>1</sup> Special Forest Product as identified in section 94(3) of the *Act* and described in the *Scaling Manual*.

<sup>2</sup> Where the post harvest material is removed under a different tenure from the original cruise based cutting authority, a waste assessment is not required.

**Forest District Specific**

Description of Activity	Forest District	Reserve Stumpage Rate
New Crown land area disturbed for mining exploration trails, seismic lines <sup>1</sup> , gas or oil well sites and right-of-way to well sites <sup>2</sup> , <b>or, authorizations for investigative purposes issued under the <i>Land Act</i>.</b>	Rocky Mountain Peace Ft. Nelson Mackenzie	\$1,600/ha \$913/ha \$836/ha \$898/ha

<sup>1</sup> The corresponding district reserve stumpage rate from the above table is adjusted according to the category of line clearing as follows:

- Category 1 - no adjustment
- Category 2 - 1/2 of the reserve stumpage rate
- Category 3 - 1/3 of the reserve stumpage rate

The gross area for each category reported as new line on either; the Oil and Gas Commission's Geophysical Final Plan cover sheet or an As Cleared Plan is multiplied by the reserve stumpage rate as adjusted above (refer to Appendix V for category definitions).

<sup>2</sup> For pipe line rights-of-way a stumpage rate must be determined by using the above rates for cutting authorities containing 2 000 m<sup>3</sup> or less, of merchantable coniferous volume. For pipe line rights-of-way cutting authorities greater than 2 000 m<sup>3</sup> see section 6.7.

**6.6.1 Miscellaneous Stumpage Rates for Timber Licences**

Timber licence cutting authority areas that have not been appraised and have a cutting authority term that began before May 1, 1995, must be appraised effective April 1, 2003.

## 6.7 Linear Tenures

1. For this section:

“Linear tenures” means a licence to cut issued for:

- A right-of-way to a mine site, or
- A mining exploration trail in a district other than Fort Nelson, Peace, Mackenzie, Rocky Mountain, or
- A pipeline right-of-way where the volume of timber on the cutting authority area is greater than 2 000 cubic metres, or
- A pipeline right-of-way where the volume is 2 000 m<sup>3</sup> or less in a district other than Fort Nelson, Peace, Mackenzie, or Rocky Mountain, or
- A hydro transmission line, or
- A highway right-of-way for a road administered by the *Ministry of Transportation and Infrastructure*, or
- A forestry licence to cut issued under section 47.6(3) of the *Act* in conjunction with a BCTS road development contract, or
- A fence line or protection of a fence line administered under the *Range Act*, or
- **Roads authorized under the *Land Act*.**

“Licensee” means the licensee who has been issued a linear tenure.

2. The stumpage rate for a linear tenure shall be the stumpage rate prescribed in Table 6-3 for the smaller of the area of the Forest District, Timber Supply Area or Region in which the entire cutting authority area for the linear tenure is located.
3. The costs of roads constructed on the cutting authority area for a linear tenure are only eligible for inclusion as part of the development cost estimate in the licensee’s first fully appraised tributary cutting authority area if those costs were not used in a full appraisal under subsection (4) of this section.
4.
  - a. Notwithstanding any other subsection in this section the stumpage rate for a linear tenure may be determined through a full appraisal.
  - b. Where the stumpage rate is determined in accordance with this subsection, the cruise data that is used in the appraisal may be from the cruise of a comparable cutting authority as per section **1.5.1.1**.
5. A stumpage rate determined under this section shall be fixed for the term of the linear tenure and all extensions.

## **6.8 Controlled Recreation Areas (CRAs)**

1. The sawlog stumpage rate for coniferous timber harvested under any cutting authority issued for a cutting authority area within a CRA is the stumpage rate approved by the Director for each quarter.
2. The stumpage rate determined under subsection (1) is redetermined on the anniversary date of the cutting authority in accordance with this section.
3. Notwithstanding any other subsection in this section, the stumpage rate may be determined through a full appraisal in accordance with chapters 1, 2, 3, 4 and 5.

## 6.9 Cruise Based Stumpage Calculations

1. Pursuant to section 106 of the *Forest Act*, and subject to subsection 2 of this section, the amount of stumpage payable on Crown timber will be calculated using information provided by a cruise of the timber before it is cut where the timber is authorized for harvest:
  - a. Under a cutting authority issued or entered into prior to June 1, 2010 where:
    - i. the stumpage rate is adjustable,
    - ii. the net merchantable coniferous volume of timber on the cutting authority area is comprised of 35% or more red and grey Mountain Pine Beetle (MPB) attacked Lodgepole pine, and
    - iii. timber harvesting has not started on the cutting authority, or,
  - b. Under a cutting authority issued or entered into on or after June 1, 2010 where:
    - i. the stumpage rate is adjustable,
    - ii. The licensee applied for a cutting permit and submitted an **ADS** to the District Manager before June 1, 2010, and,
    - iii. The net merchantable coniferous volume of timber on the cutting authority area is comprised of 35% or more red and grey MPB attacked Lodgepole pine, or,
  - c. Under a cutting authority issued or entered into on or after June 1, 2010 where:
    - i. The stumpage rate is adjustable,
    - ii. the licensee submitted an **ADS** to the District Manager on or after June 1, 2010, and
    - iii. the net merchantable coniferous volume in each cutblock within the cutting authority area is comprised of 35% or more red and grey MPB attacked Lodgepole pine, or,
  - d. **Except as provided in subsection (4) of this section, under a timber sale licence with a fixed stumpage rate, which meets the criteria in paragraph (1)(c) (ii) and (iii) of this section, or a timber sale licence with a fixed stumpage rate where the Executive Director, BCTS has approved cruise based under section 106 of the Act, or**
  - e. Except as provided in subsection 5 of this section, under a cutting authority for which a timber mark listed in Table 6-7 has been issued and timber harvesting has not started.

2. Except as provided in subsections (3) and (4) of this section, and section 5.1.3(4), the stumpage rate effective July 1, 2010 for a cutting authority where the stumpage payable is cruise based shall be calculated as stand as a whole in accordance with the following:
  - a. the stumpage rate is determined using chapters 1, 2, 3, 4 and 5 of this manual,
  - b. the stumpage rate determined under paragraph (a) of this subsection shall apply to the net merchantable volume on the cutting authority area.
3. Except as provided in subsections (4) and (5) of this section, if, after a reappraisal under section 2.2.3 of this manual:
  - a. the net merchantable coniferous volume in each cutblock within the cutting authority area is comprised of 35% or more red and grey MPB attacked Lodgepole pine, and
  - b. timber harvesting has not yet started on the cutting authority area,

The stumpage payable may be cruise based.

4. Where a timber sale licence was entered into under section 21 of the *Act* as that section was before it was repealed that provides for cutting permits and included a bonus bid, the stumpage payable will remain scale based.
5. Where a non-replaceable forest licence (NRFL) or a forestry licence-to-cut (FLTC) was advertised on the basis of competition, and the successful bidder's bonus bid only applied to the sawlog portion of the volume advertised, the stumpage payable for cutting permits issued under these licences shall remain scale based.
6. Where the sawlog volume of a cutting authority was advertised on the basis of competition and
  - a. The cutting authority was issued prior to June 1, 2010, and
  - b. The stumpage payable is cruise based,

The bonus bid shall be prorated by the person who determines the stumpage rate using Tables 4-6 or 4-7 of this manual as per section 4.6.

# **Appendices**

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**Appendix I Equipment and Labour Rates****(Cost Base July 1, 2008)**

MACHINE DESCRIPTION	TYPICAL MODEL	\$/HOUR
Crawler Tractor	Cat D9R/T, Komatsu D275AX-5	294.55
Crawler Tractor	Cat D9N (years: 1995 thru 1999)	267.80
Crawler Tractor	Cat D8T, Komatsu D155AX-5B, Deere 1050C	224.65
Crawler Tractor	Cat D7RII, Komatsu D65/85/87, Deere 950C	192.30
Crawler Tractor	Cat D6, Dresser TD15H, Komatsu D61	152.85
Crawler Tractor	Cat D5, Case 1150H, Komatsu D37/39/41	128.30
Rock Drill (includes labour)	Compressor: 750 cfm on tank chassis (includes Tank Drill outfit)	234.94
Grader	Cat 140H, Deere 772, Case 885	139.10
Front End Loader (Gravel)	Cat 966GII, Komatsu WA450-3, Case 921C	159.05
Front End Loader (Logs)	Cat 972GII, Komatsu WA500, Volvo L180E	184.40
Hydraulic Excavator incl. Brush Guard & Thumb	Cat 345 BL/CL/DL, Komatsu PC400LC-7	271.21
Hydraulic Excavator incl. Brush Guard & Thumb	Komatsu PC300 HD	223.25
Hydraulic Excavator incl. Brush Guard & Thumb	Hitachi ZX350LC, Komatsu PC300/308	196.85
Hydraulic Excavator incl. Brush Guard & Thumb	Cat 325CL, Hitachi ZX270LC, Deere 270CL	180.40
Hydraulic Excavator incl. Brush Guard & Thumb	Cat 322CL, Komatsu PC220LC, JD 230CLC	166.71
Hydraulic Excavator incl. Brush Guard & Thumb	Cat 320CL, Hitachi ZX200LC-5, JD 200C-LC	155.76
Gradall	Cat M325D L MH	180.20
Logging Truck (Highway)	All Triaxle (6axle) tandem tractor & lowbed w/ booster	113.40
Self Loading Log Truck	Highway log truck + 5 tonne deck crane	126.50
Gravel Truck	10.7 m <sup>3</sup> (14 cu. yd.)	97.46
Gravel Truck Articulated (labour included)	25 - 30 tonne: Cat 730, Deere 300D	171.65
Gravel Truck Articulated (labour included)	20 - 24 tonne: Cat 725, Terex TA25	154.50
Lowbed	5 axle unit: tandem tractor and lowbed	102.50
<b>Lowbed</b>	<b>7 axle unit: A or B train (or triple axle with booster)</b>	<b>130.90</b>
Concrete Mix Truck	6.1 m <sup>3</sup> (8 cu yd)	99.95
Concrete Vibrator (labour not included)	3.65 m – 6.10 m (12' to 21')	5.08
Concrete Mixer (labour not included)	0.17 m <sup>3</sup> (6 cu ft)	7.71
Crane - Truck Mounted	18 tonne	111.55
Soft Track Skidder	KMC/FMC 2100/2400 (out-of-date model)	147.10
Rubber Tired Skidder	Clark F/H-66 TJ 360D (out-of-date model)	102.15
Vibrator Compactor	Cat 515 plus 2.7 t to 3.6 t roller	116.80
Tractor and Grid Roller	Cat 515 plus grid roller	117.65
Labourer	Group I: Includes 40% payroll loading	34.13
Roadman	Group II: Includes 40% payroll loading	34.42
Crib/Culvert Maker, Powderman	Group VII: Includes 40% payroll loading	36.14
Landingman	Group VIII: Includes 40% payroll loading	36.61
Rockdriller & Powderman (for load & blast only)	Group VII & XI: Includes 40% payroll loading	78.70
Bridgeman	Tradesman: Includes 40% payroll loading	43.40
Powersaw (labour not included)	All: one man, 20 inches + bar	3.65
Faller, including powersaw cost	Includes 40% payroll loading	64.63

Sources:

2008 B.C. Road Builders &amp; Heavy Construction Association, Equipment Rental Rate Guide (rates based on a 3-year old machine), and IWA agreement rates including payroll loading.



**Table A6–2 Zonal Tabular Adjustment Table**

Scale Based											
Zone	BA	CE	FI	HE	LA	SP	WH	YE	GP <sup>1</sup>	DP <sup>2</sup>	Average
SW <sup>3</sup>	-18.85	-17.12	-17.12	-17.12	-17.12	-17.83	-17.12	-17.12	-17.15	-16.30	-17.12
5	0.42	-18.42	-13.12	-7.54	-1.43	-3.00	-1.43	-1.43	1.13	-0.87	-1.43
6	-0.57	-0.70	-1.77	-2.52	-1.77	-1.66	-1.77	-1.77	-0.73	-1.77	-1.77
70K	7.81	-5.40	-7.31	-3.39	-5.36	6.21	-5.11	-3.75	3.77	4.75	1.78
7SE	6.87	-5.47	-10.21	-5.34	-6.10	3.45	-7.45	-12.33	-2.03	0.32	-2.35
8	-3.10	-7.05	-15.97	-6.98	-4.14	-3.60	-16.26	-4.14	-0.14	-1.23	-4.14
9	10.19	3.63	3.63	3.63	3.63	2.93	3.63	3.63	3.05	5.00	3.63

Cruise Based											
Zone	BA	CE	FI	HE	LA	SP	WH	YE	GP	DP	Average
SW <sup>3</sup>	-17.03	-18.85	-17.09	-18.85	-18.85	-18.66	-18.85	-18.85	-17.73	-19.24	-18.85
5	-2.38	-4.39	-5.20	-4.39	-4.39	-2.95	-4.39	-4.39	-4.17	-5.01	-4.39
6	-2.38	-4.39	-5.20	-4.39	-4.39	-2.95	-4.39	-4.39	-4.17	-5.01	-4.39
70K	5.25	-3.66	0.56	2.91	2.91	4.17	-2.30	2.91	2.68	2.53	2.91
7SE	4.85	1.56	1.39	4.30	4.30	5.28	4.30	4.30	3.82	4.25	4.30
8	-1.41	-3.51	-4.03	-3.93	-3.93	-2.80	-3.93	-3.93	-3.89	-4.21	-3.93
9	7.69	7.30	7.30	7.30	7.30	7.78	7.30	7.30	6.87	7.34	7.30

<sup>1</sup> GP (green pine) is all appraised Lodgepole pine volume except Lodgepole pine red and grey attack

<sup>2</sup> DP (dead pine) is appraised Lodgepole pine red and grey attack volume

<sup>3</sup> SW (smallwood) is the previous Zone 25 and applies to only those cutting permits under the licences listed in Table A6-3 where the cutting permit and the licence restricts harvesting to stands where the net merchantable volume per tree is less than 0.2m<sup>3</sup>/tree and the licence has not expired.

**Table A6-3 Smallwood Licence Table**

<b>Licence</b>	<b>Licence Expiry Date<sup>1</sup></b>
A55524	2011-12-31
A55525	2012-05-31
A55527	2012-05-31
A55528	2011-12-31
A55529	2012-05-31
A55578	
A61106	2010-08-31
A61108	2010-08-31
A61109	2011-06-30
A65442	2011-10-31
A73171	
A75735	2010-07-05
A77509	
A79982	
A80600	
A81242	2011-12-06
A81700	2011-12-05
A82224	2012-06-06
A82520	
A82523	
A83544	2010-11-28
A83857	2011-06-24
A83858	2011-06-24
A84161	
A84685	
A85417	
A85446	
A85448	
A85452	
A86036	
A86416	2010-09-09
PA16	

<sup>1</sup> Expiry date listed if before July 1, 2012

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