



Ministry of
Forests

Office of the Minister

MEMORANDUM

File: 280-20

DEC 15 2004

BY EMAIL

To: Phil Zacharatos
Regional Manager
Southern Interior Forest Region

Jim Gowriluk
A/Regional Manager
Northern Interior Forest Region

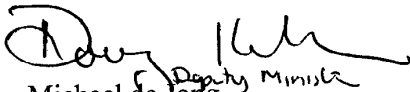
From: The Honourable Michael de Jong
Minister of Forests

Re: **Amendment No. 1 to the *Interior Appraisal Manual***

I hereby approve Amendment No. 1 to the *Interior Appraisal Manual*, and attach a copy for your use. The following sections have been amended.

- | | |
|--------------------|--|
| Section 2.3.2.4: | Mathematical Error. Minor revision to use the correct term "appraisal data submission". |
| Section 2.5(2)(d): | Extra commas removed. |
| Section 4.4.5: | Prorating tree-to-truck cost estimates. Typographical omissions in the formula have been corrected. |
| Section 4.11: | The table for appraisals with effective dates from previous <i>Interior Appraisal Manuals</i> has been revised with factors which normalize the previous manuals with the current one. |
| Table 6-4: | District description changed from "Cranbrook" to "Rocky Mountain". |
| Appendix A-3: | Housekeeping. |

This amendment will come into force on the date this memo is signed. Further amendments or revisions to this manual require my approval.


Michael de Jong
Minister

Attachment

pc: Bill Howard, Director, Revenue Branch

All Subscribers, *Interior Appraisal Manual*





FOR FURTHER INFORMATION CONTACT:

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MANUAL TITLE

Interior Appraisal Manual

REVISION No.

Amendment No. 1

ISSUE DATE

December 15, 2004

MANUAL CO-ORDINATOR

Judy Laton
Revenue Branch

AUTHORIZATION (Name, Title)

W. Howard
Director, Revenue Branch

Please make the following changes to your copy of the above Ministry manual. Please insert the following specified pages and **file this notice** immediately after the Amendments Tab.

ACTION (Remove/Insert)	(VOL.) CHAPTER-SECTION-SUBJECT	PAGE(S)	COMMENTS
	TABLE OF CONTENTS		
REMOVE	Chapter 2	7 - 8 11 - 12	After Chapter 2 Tab
INSERT	Chapter 2	7 - 8 11 - 12	
REMOVE	Chapter 4	33 - 34 53 - 56	After Chapter 4 Tab
INSERT	Chapter 4	33 - 34 53 - 56	
REMOVE	Chapter 6	13 - 14	After Chapter 6 Tab
INSERT	Chapter 6	13 - 14	
REMOVE	Appendices	3 - 4	After Appendices Tab
INSERT	Appendices	3 - 4	
INSERT	Minister's Letter and Manual Revision Transmittal		After Amendments Tab

2. A blanket salvage permit issued on or after September 1, 2004, must be reappraised at the anniversary date of the cutting authority. For blanket salvage permits issued prior to September 1, 2004, the appraisal expiry date may be extended to April 30, 2005.

2.3.2.3 Minister's Direction

1. The Minister of Forests may direct that a reappraisal be made at any time and that the redetermined stumpage rate be effective on any future date, and may specify criteria and procedures for the reappraisal.
2. A reappraisal directed by the Minister of Forests, may be a re-estimation of operating cost, lumber recovery factor, or selling price, or any combination of these, as may be directed by the Minister of Forests.

2.3.2.4 Mathematical Error

- a. If a government employee or contractor in the Ministry of Forests or a licensee (or employee or contractor of a licensee) becomes aware of what is or probably is a mathematical error in a stumpage determination, that person shall give written notice of the error ("the Notice") as follows:
 - i. in the case of appraisals and reappraisals, to the appropriate regional manager, and
 - ii. in the case of quarterly adjustments, to the director of Revenue Branch,
- b. the Notice shall describe the stumpage determination or determinations involved and shall describe the nature and cause of the error to the extent reasonably possible,
- c. upon receipt of the Notice, the regional manager or the director of Revenue Branch shall make the appropriate investigation to decide whether or not an error has, in fact, been made,
- d. if the regional manager or the director of Revenue Branch decides that an error has not been made, they shall notify the person who sent the Notice of the decision and the reasons for it,
- e. if the regional manager or director of Revenue Branch, decides that an error has been made, the following shall occur:
 - i. the regional manager or the director of Revenue Branch, shall notify the person who sent the Notice of the decision and the reasons for it,

- ii. the regional manager or the director of Revenue Branch, shall take reasonable steps to ensure that all licensees who have been affected by the error are informed of the Notice and of the nature and cause of the error,
 - iii. the cutting authority or authorities under which the error was made shall be reappraised or the quarterly stumpage adjustment recalculated to correct the error unless the cutting authority, the *Interior Appraisal Manual* or the application in tender for a timber sale licence specified that the stumpage rate is fixed, and
 - iv. the effective date of the redetermined rate shall be the first day of the month following the date on which the Notice was received by the regional manager or the director of Revenue Branch,
- f. if an error has occurred and no Notice has been given with respect to it, the Notice shall be deemed to have been given on the date on which the regional manager or the director of Revenue Branch, became aware of the error or probable error,
- g. no person who discovers or otherwise becomes aware of a mathematical error in a stumpage determination shall be obliged to send the Notice as required herein if that person, on reasonable grounds, believes that someone else has sent the Notice with respect to the same error,
- h. the redetermined rate does not apply to timber scaled before the first of the month following the date upon which the Notice was given. No remedy will be available with respect to timber scaled before the first of the month,
- i. in this section, a mathematical error is any of the following:
- i. an error in transcribing or compiling approved cruise field data, or in the application of approved loss factors and taper equations,
 - ii. an error in a calculation made as part of the appraisal data submission,
 - iii. an error in transcribing the data from an approved appraisal data submission or in performing the calculation specified in the manual, and
 - iv. an error in the application of published appraisal parameters,

A difference between cruise estimates and actual timber quality or quantity does not constitute an error in the appraisal.

A difference between appraisal estimates of selling price or operating cost and the licensee's experience does not constitute an error in the appraisal.

Omission of data by the licensee on an approved appraisal data submission does not constitute an error in the appraisal.

2.5 Fixed Stumpage Rate and Extension of Term

BC Timber Sales (BCTS)

1. A fixed stumpage rate for a BCTS cutting authority means that the reserve stumpage rate, levies and bonus bids will not change during the term of the cutting authority and all extensions. Except where:
 - a. a reappraisal is done under section 2.3.2(1)(d) due to sudden and severe damage or
 - b. a reappraisal is done under section 2.3.2.3 because of a minister's direction.

Woodlots

2.
 - a. An appraised or reappraised stumpage rate for a cutting authority, other than a road permit, issued under a woodlot licence shall be adjusted quarterly unless a woodlot licensee chooses in accordance with this section, to have, or the woodlot licence has under section 2.5,(2)(c) a fixed stumpage rate for the term of the cutting authority and all extensions.
 - b. A licensee may choose to change the adjusting stumpage rate to a fixed stumpage rate at any time upon giving three (3) weeks prior written notice of that choice to the regional timber pricing co-ordinator. Once the choice has been made by the licensee, it is irrevocable and is not retroactive. Where the proper notice above, is given, the stumpage rate will be fixed.
 - c. Where a woodlot licence cutting authority has a stumpage rate that is not adjusted quarterly as of April 1, 2003, that stumpage rate shall remain fixed for the term of the cutting authority and all extensions.
 - d. Where a woodlot licence cutting authority has a stumpage rate that is fixed by section 2.5(2)(b) or 2.5(2)(c), that cutting authority shall only be reappraised under section 2.3.2.1(1)(d), section 2.3.2.2, or section 2.3.2.3.

Zonal Average Sawlog Stumpage Rates

3. Where the stumpage rate has been determined under section 6.1 or section 6.2 and the term of the cutting authority is extended, the stumpage rate shall continue unchanged during the term of the cutting authority.

Miscellaneous Stumpage Rates

4. Miscellaneous stumpage rates (section 6.8) will be based on the *Interior Appraisal Manual* in effect on the date of scale.

2. Yarding distance will be measured as slope distance from the centre of the landing to the falling boundary.
3. The sum of transect lengths divided by the number of transects equals the average yarding distance.
4. The exception to the above; where the ministry and the licensee agree that Forest and Land Management is better served by the use of a skyline system in a particular logging chance, then the average yarding distance greater than 300 meters requirement is waived.

The tree-to-truck cost estimate is determined from the equation as follows:

$$$/m^3 = \text{CONSTANT} + (24.79 * \text{SLOPE\%/100}) - (12.91 * \text{GVOL}) + (3.32 * \text{GVOLSQR}) + 1.12 * \text{SKYYARD/100}$$

Where CONSTANT =

	Biogeoclimatic Zone
Region	All
Nelson	31.79
Other	28.77

4.4.4 Tree-to-Truck Additive for Damaged Timber

The following cost estimate additives are recognized for heavy fire damage (HFD), and dead/live useless snags (DUS). The data is collected as specified by the *Cruising Manual*. The additional costs incurred to harvest blowdown timber are recognized in the tree-to-truck ground skidding and overhead cable logging equations (sections 4.4 (3), 4.4 (4)).

The following additive is determined for all cable and ground skidding harvesting methods and is added to the tree-to-truck cost estimate.

$$$/m^3 = 0.04 * (DT - 15)$$

Where: DT is the Damaged Timber percent

$$DT = \text{HFD} + \text{DUS}$$

If: DT is less than 15 percent, DT = 15

If: DT is more than 100 percent, DT = 100

$$\text{Heavy Fire Damage \%} = \frac{\text{Conifer HFD Volume(m}^3\text{)} * 100}{\text{Total Net Conifer Volume(m}^3\text{)}}$$

$$\text{Dead / Live Useless Snags \%} = \frac{\text{Conifer DUS Snags / ha} * 100}{\text{Net Merchantable Conifer Stems / ha} + \text{Conifer DUS Snags / ha}}$$

4.4.5 Prorating Tree-to-Truck Cost Estimates

Where more than one harvesting method is required, a proration of costs is necessary.

The variables for each required harvesting method must be based on a cruise compilation of only those plots located within the area to be harvested by the method and include the deciduous volume if the licence requires harvesting in deciduous stands.

The additive for damaged timber is also determined for each applicable method.

The final prorated tree-to-truck cost estimate is determined according to the following equation where each component is rounded to the nearest cent before totalling:

$$\begin{aligned} \$/\text{m}^3 = & \frac{(\text{Cost}_{\text{Heli(C)}})(V_{\text{Heli(C)}})}{(\text{TNCV})} + \frac{(\text{Cost}_{\text{Heli(P)}})(V_{\text{Heli(P)}})}{(\text{TNCV})} + \frac{(\text{Cost}_{\text{Horse}})(V_{\text{Horse}})}{(\text{TNCV})} + \frac{(\text{Cost}_{\text{OC(C)}})(V_{\text{OC(C)}})}{(\text{TNCV})} + \\ & \frac{(\text{Cost}_{\text{OC(P)}})(V_{\text{OC(P)}})}{(\text{TNCV})} + \frac{(\text{Cost}_{\text{GS(C)}})(V_{\text{GS(C)}})}{(\text{TNCV})} + \frac{(\text{Cost}_{\text{GS(P)}})(V_{\text{GS(P)}})}{(\text{TNCV})} + \frac{(\text{Cost}_{\text{SK}})(V_{\text{SK}})}{(\text{TNCV})} \end{aligned}$$

Where:

Cost	=	cost estimate (\$/m ³) including any damaged timber additive
V	=	volume (m ³) required to be logged by each system
Heli (C)	=	helicopter logging (clear cut)
Heli (P)	=	helicopter logging (partial cut)
Horse	=	horse logging
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	=	skyline logging
TNCV	=	total net cruise volume (m ³)

Untrended Manufacturing Cost Estimates (\$/m³) 2001 Cost Survey Base		
	Species	Manufacturing cost (\$/m³) 0% Decay
Southern Cariboo (Zone 8)	LO	36.96
	SP	33.69
	BA	38.58
	FI, LA, WH, YE	52.22
	CE	45.71
	HE	45.62

Fort Nelson/Peace (Zone 9)	LO	34.85
	SP	31.65
	BA	35.89

To derive the manufacturing cost estimate for decay % from 1 to 50, use the above table values in the following equation:

The cost estimate is calculated to four decimal places, then rounded to the nearest cent. Where decay exceeds 50 percent, the manufacturing cost estimate for 50 percent decay is used.

Manufacturing cost (\$/m³) = decay % * 0.1952 + base value from table.

For a list of points of appraisal by zone, refer to section 2.6.

4.11 Cost Trend

Cost trend factors are separately applied to the total logging, silviculture and manufacturing cost estimates. The factors cover the period from the effective date of the cost base to the effective date of the rate calculation. Cost trend factors are applied at the appraisal effective date and at the date of each stumpage adjustment.

For trend factors applicable prior to November 1, 2004, refer to earlier *Interior Appraisal Manuals*.

Appraisal Effective Dates From August 1, 1996 to November 30, 1997

<u>Appraisal Effective Date or Stumpage Adjustment Date</u>	<u>Trend Factor</u>	
	<u>Logging and Silviculture</u>	<u>Manufacturing</u>
January 1 to March 31, 2005	0.954	1.0
April 1 to June 30, 2005	0.954	1.0
July 1 to September 30, 2005	0.954	1.0
October 1 to December 31, 2005	0.954	1.0

Appraisal Effective Dates From December 1, 1997 to August 31, 1998

<u>Appraisal Effective Date or Stumpage Adjustment Date</u>	<u>Trend Factor</u>	
	<u>Logging and Silviculture</u>	<u>Manufacturing</u>
January 1 to March 31, 2005	0.886	1.0
April 1 to June 30, 2005	0.886	1.0
July 1 to September 30, 2005	0.886	1.0
October 1 to December 31, 2005	0.886	1.0

Appraisal Effective Dates From September 1, 1998 to September 30, 1999

<u>Appraisal Effective Date or Stumpage Adjustment Date</u>	<u>Trend Factor</u>	
	<u>Logging and Silviculture</u>	<u>Manufacturing</u>
January 1 to March 31, 2005	0.936	1.0
April 1 to June 30, 2005	0.936	1.0
July 1 to September 30, 2005	0.936	1.0
October 1 to December 31, 2005	0.936	1.0

Appraisal Effective Dates From October 1, 1999 to August 31, 2000

<u>Appraisal Effective Date or Stumpage Adjustment Date</u>	<u>Trend Factor</u>	
	<u>Logging and Silviculture</u>	<u>Manufacturing</u>
January 1 to March 31, 2005	0.983	1.0
April 1 to June 30, 2005	0.983	1.0
July 1 to September 30, 2005	0.983	1.0
October 1 to December 31, 2005	0.983	1.0

Appraisal Effective Dates From September 1, 2000 to June 30, 2001

<u>Appraisal Effective Date or Stumpage Adjustment Date</u>	<u>Trend Factor</u>	
	<u>Logging and Silviculture</u>	<u>Manufacturing</u>
January 1 to March 31, 2005	0.967	1.0
April 1 to June 30, 2005	0.967	1.0
July 1 to September 30, 2005	0.967	1.0
October 1 to December 31, 2005	0.967	1.0

Appraisal Effective Dates From July 1, 2001 to October 31, 2002

<u>Appraisal Effective Date or Stumpage Adjustment Date</u>	<u>Trend Factor</u>	
	<u>Logging and Silviculture</u>	<u>Manufacturing</u>
January 1 to March 31, 2005	0.967	1.0
April 1 to June 30, 2005	0.967	1.0
July 1 to September 30, 2005	0.967	1.0
October 1 to December 31, 2005	0.967	1.0

Appraisal Effective Dates From November 1, 2002 to October 31, 2004

<u>Appraisal Effective Date or Stumpage Adjustment Date</u>	<u>Trend Factor</u>	
	<u>Logging and Silviculture</u>	<u>Manufacturing</u>
January 1 to March 31, 2005	1.007	1.0
April 1 to June 30, 2005	1.007	1.0
July 1 to September 30, 2005	1.007	1.0
October 1 to December 31, 2005	1.007	1.0

Appraisal Effective Dates On or After November 1, 2004

<u>Appraisal Effective Date or Stumpage Adjustment Date</u>	<u>Trend Factor</u>	
	<u>Logging and Silviculture</u>	<u>Manufacturing</u>
January 1 to March 31, 2005	1.000	1.0
April 1 to June 30, 2005	1.000	1.0
July 1 to September 30, 2005	1.000	1.0
October 1 to December 31, 2005	1.000	1.0

Forest District Specific

Description	District	Reserve Stumpage Rate
Gross area cleared for seismic lines, ¹ gas or oil well sites and right-of-way to well sites. ²	Rocky Mountain Peace Ft. Nelson Mackenzie	\$1,663/ha \$1,731/ha \$1,040/ha \$2,122/ha

1. The gross area cleared as "Low Impact Seismic" or "Minimal Impact" line (refer to Appendix V) is divided by 2 as defined by the Geophysical Final Plan Cover Sheet and the appropriate per ha rate from the table applied to the adjusted area.
2. For pipe line rights-of-way a stumpage rate may be determined by using the above rates for cutting authorities containing less than 2 000 m³, of merchantable volume. For cutting authorities of 2 000 m³ and over see section 6.2.

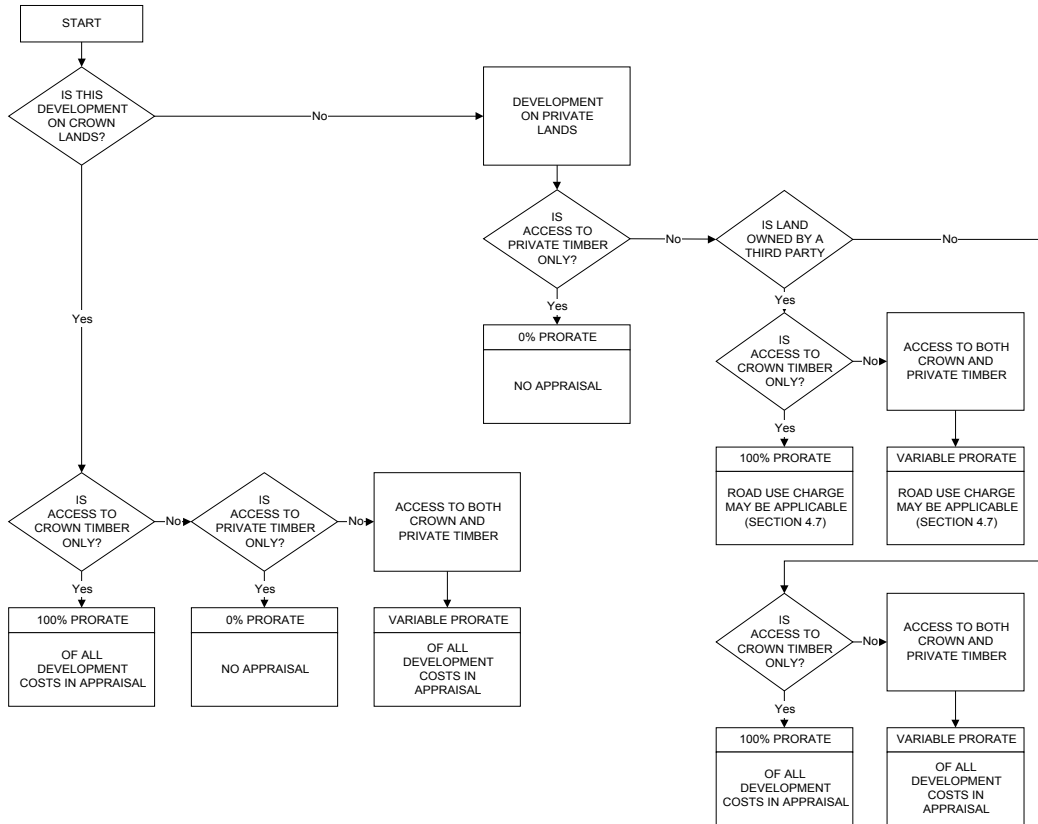
6.8.2 Miscellaneous Stumpage Rates for Timber Licences

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.

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- The above rates will be used for all engineered estimates made under this manual,
- The machine rate includes labour for the operator (all found). There are no additions,
- Crew transportation, supervision, and camp/cookhouse costs, where applicable, are included in the standard phase costs of the manual. No additions are required, however, those licensees that incur camp costs (a camp is defined as a permanent structure(s) where capital costs were incurred to establish the camp that must have a cookhouse and a bunkhouse) and recovers the said camp costs from the contractor, and credits an account, in the books of the licensee; is permitted an additive of \$50.00 per “person day” for staying at the camp; and
- Use of equipment rates not listed in this appendix must be approved by the Regional **Timber Pricing** Co-ordinator.

Appendix II Development Cost Allocation



Crown Timber = Appraised timber including appraised Timber Licences

Private Timber = Non-appraised timber

Variable Prorate = A tributary-volume type prorate between appraised and non-appraised timber