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MEMORANDUM

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SEP 24 2010

To: Madeline Maley, A/Regional Executive Director, Southern Interior Forest Region  
Greg Rawlings, A/Regional Executive Director, Northern Interior Forest Region

From: The Honourable Pat Bell  
Minister of Forests and Range

**Re: Amendment No. 2 to the Interior Appraisal Manual**

I hereby approve Amendment No. 2 to the *Interior Appraisal Manual* and attach a copy for your use. The following sections have been amended:

- |                   |   |
|-------------------|---|
| Section 3.2       | Revised text for alternate methodology to calculate lumber Average Market Values (AMVs) if insufficient data and housekeeping |
| Section 3.3       | Clarification for which variables that must include deciduous volumes   |
| Table 3-3         | Forest district added to Selling Price (SP) Zone 7 list for clarification.  |
| Section 3.5       | Section reference updated   |
| Section 4.3.2.3   | Section reference updated   |
| Table 6-6         | Clarification for cruise based cutting authorities  |
| Section 6.8       | Clarification added   |
| Section 6.9(1)(c) | Revised text for clarification  |

This amendment will come into force on October 1, 2010. Further amendments or revisions to this manual require my approval.

Pat Bell  
Minister

Attachment



pc: Murray Stech, Director, Pricing Branch

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<p>FOR FURTHER INFORMATION OR IF YOU HAVE A CHANGE OF ADDRESS, PLEASE CONTACT:</p> <p>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</p>	<b>MANUAL TITLE</b>	
	Interior Appraisal Manual	
	<b>AMENDMENT</b>	<b>ISSUE DATE</b>
	Amendment No. 2	October 1, 2010
<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  TABLE OF CONTENTS	PAGE(S)	COMMENTS
Remove	Table of Contents	i - ii	After Table of Contents Tab
Insert		i - ii	
Remove	Chapter 3	3 - 8	After Chapter 3 Tab
Insert		3 - 8	
Remove	Chapter 6	17 - 20	After Chapter 6 Tab
Insert		17 - 20	
Remove	Index	1 - 4	After Index Tab
Insert		1 - 4	
INSERT	Letter from Minister and Transmittal Sheet		After Amendments Tab



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## 3.2 MPS Lumber Selling Prices

1. Selling prices for MPS are based on three-month averages of lumber market values reported by licensees and published monthly by Pricing Branch. They are aggregated by zone based on Points of Appraisal in Table 3-4. When the average market values (AMVs) are approved by the Director they become an integral part of this manual.

### 3.2.1 Lumber AMVs

1. Unless otherwise specified in this section, the species lumber AMVs are based on a three month average of lumber selling prices two (2) months prior to the date of publication. They are derived by dividing the total sales value by the total sales volume.
2. If there is insufficient data reported the AMVs for a species may be determined using a procedure approved by the Director.
3. The volume that is manufactured to Canadian Lumber Standard/American Lumber Standard (CLS/ALS) sizes is reported in foot board measure (fbm). Lumber manufactured in non-CLS/ALS sizes is adjusted to equivalent CLS/ALS sizes. The total volume for each species includes all sizes and grades of rough and dressed lumber in the green and dried state. Also included is finger-jointed lumber and machine stress rated lumber.
4. The total net sales value for each species or species group is reported in Canadian dollars (FOB) mill.

### 3.2.2 Calculation of the Real Stand Selling Price (RSP)

1. The total lumber selling price (SP) in  $\$/m^3$  is determined for each coniferous species using lumber recovery factors (LRF) from the cruise compilation summary, LRF update add-ons and the current applicable lumber AMV for the species and zone.
  - a. Zonal LRF update add-ons are found in Table 3-1, by species.
  - b. Lumber AMVs as published every month.
  - c. Calculation of total species lumber selling price.
    - i. If the cruise LRF for Lodgepole pine (LO) has been reduced for Mountain Pine Beetle volume, the reduction must be added back as follows:
 
$$\text{Final LO Cruise LRF} = \text{LO Cruise LRF} + (\text{LO green attack volume} * 3 + \text{LO red attack volume} * 33 + \text{LO grey attack volume} * 83) \div \text{LO pine volume}.$$
    - ii. Species Appraisal LRF = Species Cruise LRF + Species LRF update add-on.
    - iii. Species SP ( $\$/m^3$ ) = Species AMV( $\$/mbm$ )/1000 \* Species Appraisal LRF.

- d. The stand SP is the volume-prorated sum of the species SP.
- e. The real stand SP (RSP) is the stand SP divided by the CPIF, as defined in section 3.3.

**Table 3-1 LRF Update Add-ons for MPS**

<b>Species</b>	<b>Zone 5</b> (Northern Interior)	<b>Zone 6</b> (Skeena)	<b>Zone 7</b> (Southern Interior)	<b>Zone 8</b> (Southern Cariboo)	<b>Zone 9</b> (Ft. Nelson-Peace)
Lodgepole Pine	106	80	89	96	88
Spruce	127	106	113	117	106
Balsam	119	100	102	110	97
Douglas Fir	96	-	76	86	-
Larch	92	-	76	86	-
Cedar	71	51	58	62	-
Hemlock	73	54	61	67	-
White Pine	90	-	74	82	-
Yellow Pine	-	-	77	90	-



### 3.3 Estimated Winning Bid Variables

Where volume data is used in the calculation of the variable that calculation must include the total net deciduous volume unless otherwise indicated in the description of that variable below.

RSP	=	Real Stand Selling Price for coniferous species (\$/m <sup>3</sup> ). See section 3.2.
PC	=	Fraction of harvest method volume that is appraised as partial cut. $PC = (100 - CAPCUT \%) / 100$ . See section 4.5 for definition of CAPCUT %. The 80% limit in the definition of CAPCUT in section 4.5 does not apply.
VOL	=	Total net coniferous volume (m <sup>3</sup> ). If the cutting authority is for a BCTS licence, the volume is from the cutting authority cruise compilation. Otherwise it is the volume from Table 3-3 for the selling price zone the cutting authority area is located in.
CABLE	=	Fraction of total harvest method volume that is appraised as overhead cable yarding.
HELI	=	Fraction of total harvest method volume that is appraised as helicopter yarding.
FIRE	=	Fraction of total net coniferous volume that is fire damaged.
CYCLE	=	Hauling round trip cycle time (Primary CT (hrs) + Secondary CT (hrs)). See sections 3.5.1.1 and 5.1.3.
HEMBAL	=	Fraction of total net coniferous volume that is hemlock and balsam.
CEDAR	=	Fraction of total net coniferous volume that is cedar.
VPT	=	Cutting permit average volume per tree from cruise (m <sup>3</sup> ).
SLOPE	=	Cutting permit average slope from cruise (%).
DANB	=	Average number of bidders by district from the auction dataset (see Table 3-2).
DECAY	=	Prorated coniferous species decay % (from cruise)/100.
ZONE 9	=	Fort Nelson - Peace selling price zone variable. Zone 9 = 1 if cutting authority is appraised with selling price zone 9, otherwise Zone 9 = 0.
VPH_CON	=	Net coniferous volume per hectare (m <sup>3</sup> /ha).

ATTACK	=	Fraction of the total net coniferous volume that is Lodgepole pine green, red and grey attack plus the fraction of total net coniferous volume that is other insect attack.
CB	=	Cruise based billing for mountain pine beetle damage variable. CB = 1 if section 6.9 is applicable, otherwise CB = 0.
AUC2009	=	2009 Auctions variable. AUC2009 = 1.
DECK	=	DECK_VOL / VOL
DECK_VOL	=	The total net coniferous volume that has been felled and decked in the timber sale (m <sup>3</sup> ).
HWY	=	1 if primary haul method is Highway, otherwise HWY = 0.
ER	=	Exchange Rate (\$US/\$C). Bank of Canada three-month average rate beginning five months prior to the stumpage rate effective date, as published by Pricing Branch.
CD	=	Competitive Deciduous Equals 1 if the upset stumpage rate is determined under section 5.1.1(5), otherwise CD = 0.
CPI	=	Monthly B.C. Consumer Price Index (CANSIM 326-0020, 2002 = 100) x 1.1787.
CPIF	=	Consumer Price Index Factor calculated as CPI/109.3.

**Table 3-2 District Average Number of Bidders (DANB)<sup>1</sup>**

Forest District	DANB	Forest District	DANB
100 Mile House	4.6	Kootenay Lake	2.8
Arrow Boundary	2.6	Mackenzie	2.2
Cascades	3.5	Nadina	4.1
Central Cariboo	5.2	Okanagan Shuswap	3.3
Chilcotin	1.0	Peace	2.4
Columbia	3.1	Prince George	3.6
Fort Nelson	2.4	Quesnel	4.7
Fort St. James	2.3	Rocky Mountain	2.6
Headwaters	3.2	Skeena Stikine	2.8
Kalum	2.2	Vanderhoof	2.1
Kamloops	4.5		

**Table 3-3 Zonal Volume<sup>2</sup>**

Zone	Volume (m <sup>3</sup> )
5	54039
6	51802
7 OK	50758
7 SE	44260
8	66589
9	66769

<sup>1</sup> From the 5-year auction dataset.

<sup>2</sup> For the purposes of applying the volume variable in the estimated winning bid equation determine the applicable selling price (SP) zone based on the POA from Table 3-4 used in the appraisal. If in SP zone 7, then determine the district. Zone 7 is split into 2 components:

7OK = Cascades Forest District, Kamloops Forest District, Okanagan Shuswap Forest District, 100 Mile House Forest District.

7SE = Headwaters Forest District, Columbia Forest District, Prince George Forest District, Central Cariboo Forest District, Quesnel Forest District, Arrow Boundary Forest District, Rocky Mountain Forest District, **Kootenay Lake Forest District**.

### 3.4 Estimated Winning Bid Equation

Using the variables defined in section 3.3, the selling price calculated in section 3.2.2 and the equation below, calculate the estimated winning bid (EWB).

$$\begin{aligned} \text{EWB} = & [ 32.85 + 0.152 * \text{RSP} - 2.86 * \text{PC} + 1.71 * \ln (\text{VOL}/1000) - 9.48 * \\ & \text{CABLE} - 64.08 * \text{HELI} - 11.48 * \text{FIRE} - 1.01 * \text{CYCLE} - 18.91 * \\ & \text{HEMBAL} + 37.08 * \text{CEDAR} - 0.0209 * \text{SLOPE} + 0.871 * \text{DANB} - 19.10 * \\ & \text{DECAY} - 6.55 * \text{ZONE9} - 13.73 * \text{AUC2009} + 8.70 * \ln (\text{VPT}) + 41.11 * \\ & \text{DECK} + 0.709 * \text{HWY} - 11.86 * \text{ER} - 8.26 * \text{CD} + 1.50 * \ln (\text{VPH\_CON}) \\ & - 5.56 * [\text{ATTACK} * (1 - \text{CB})] - 8.01 * \text{CB} * \text{CPIF} \end{aligned}$$

If EWB less than \$0.25 then EWB = \$0.25

Note: ln = natural logarithm.

## 3.5 Log Transportation

The log transportation phase covers all aspects of log movement from the place of initial loading to the point of appraisal, including truck haul, rail, water and other specialized transportation. The use of section 3.5.1.1(3)(c) does not affect any other provision that requires the use of the point of appraisal, as per section 3.5.2.

### 3.5.1 Cycle Time Variables

#### 3.5.1.1 Primary Cycle Time (CT):

1. The cycle consists of loading, hauling, weighing, unloading, return time, and unavoidable delays. The cycle time will normally be determined by taking into consideration all the factors that may affect it: distance, expected rate of speed, necessary delays, expected standard of roads and their maintenance, traffic density, and seasonal weather conditions.
2. In many cases standard cycle time schedules from specific road junctions to the point of appraisal have been developed and should be used (Sector times) .
3. For appraisal purposes, weighted average Primary Cycle Time (CT) is the estimated time in hours (rounded to the nearest 0.1 hour) for transporting logs from the centre of a cutting authority area to:
  - a. the point of appraisal as per section 3.5.2,
  - b. the appraisal place of unloading in the case of water or rail transport, or
  - c. where the regional manager is satisfied that a transfer of current cutting rights to address a bark beetle infestation will result in:
    - i. equal or higher sawlog stumpage rates for the timber to which the current cutting rights are transferred to, when compared to the sawlog stumpage rates for the timber where the current cutting rights are transferred from, and
    - ii. an increase in milling consumption of beetle infested timber by the licensee whose current cutting rights are transferred, then  
the place that would have been the point of appraisal if the timber had been harvested in the area from which the current cutting rights are transferred from.
4. To determine weighted average primary cycle time:
  - a. establish the geographical centre point of each cutblock and project this point to the nearest road for measurement purposes,
  - b. from this centre point, determine the cycle time to the nearest junction serving all cutblocks,

- c. weight the cycle time for each cutblock by the volume on the cutblock and determine the average weighted cycle time to the junction. If the cutblock volume is not available, the cutblock area is used, and
  - d. determine the cycle time from the junction to:
    - i. the point of appraisal as per section 3.5.2,
    - ii. the appraisal place of unloading,
    - iii. if the conditions under 3.5.1.1 (3)(c) are met, then  
  
the place that would have been the point of appraisal if the timber had been harvested in the area from which the current cutting rights are transferred from.
5. Unavoidable delays are periods when the truck is on the job but not operating due to unpredictable delays such as; tightening binder chains, minor repairs made by driver, checking and adjusting brakes, minor delays prior to loading and unloading, refuelling, etc. Unavoidable delay time does not include any breakdown which requires shop repair, the services of a skilled mechanic, or a spilled load of logs. The time for load, unload and unavoidable delay is set at 75 minutes for cable yarding systems and 60 minutes for all other systems.
6. Total CT is the sum of the times calculated under subsections 4(c), 4(d) and 5.

### 3.5.1.2 Haul Method

Cost estimates do not recognize different types of logging trucks. The estimate is based upon the possible haul method, either highway or off-highway and not specifically on the licensee's particular method.

Highway hauling is assumed when loaded logging trucks must travel in part over roads administered under the *Highway Act*, without truck-to-truck transfer, to the point of appraisal, or on roads administered under the *Industrial Road Act* and Forest Service Roads as defined in *Forest Act* where prolonged known road restrictions prevent the use of oversize loads, or in all instances where the volume per tree is less than 0.20 m<sup>3</sup>.

Off-highway hauling is assumed when loaded logging trucks can travel over roads administered under the *Industrial Road Act* and Forest Service Roads as defined in *Forest Act* to the point of appraisal, or to a recognized reload. Where prolonged known restrictions (e.g., bridge load limit, narrow road, through rock cut, Regulations under the *Workers Compensation Act*, etc.) prevent the use of oversize loads, highway haul is assumed.

## 4. Percent Rock: (ROCK %)

Rock includes bedrock and large boulders (each greater than 1.5m in diameter). It may be rippable or may require drilling and blasting. Rock percent may show a variation (+/- 15% about the average) within any section length and represents the average of all rock percents in the section to a maximum of 50%. To derive an average percent rock, representative cross-section measurements are taken along the section length and the percent rock calculated. The sum of one-half of the distance on each side of where the measurements were taken is applied as a weight against the percent rock calculated at that cross-section. The percent rock is determined as follows:

$$\text{ROCK \%} = \frac{h^2}{H^2} * 100$$

Where:

h = the vertical cut height of all rock measured from the bottom of the ditch.

H = the total vertical cut height of all materials above the bottom of the ditch.

To determine the percent rock for roads not yet constructed, constructed roads on similar land/rock forms are used as a guide. Alternately, where estimates of rock volume from commercial road design programs are available for tabular sections, that information may be used to estimate the rock percent.

## 5. Soil Moisture Regime (SMR):

Those biogeoclimatic zones/subzones with site series identified as “M”, “VM” or “W” in the shaded area of the table in Appendix III are considered “Wet” for appraisal purposes.

## 6. Biogeoclimatic Zone Abbreviations Used in This Chapter

SBPS	-	Sub-Boreal Pine-Spruce	IDF	-	Interior Douglas Fir
SBS	-	Sub-Boreal Spruce	MH	-	Mountain Hemlock
ESSF	-	Engelmann Spruce Subalpine Fir	MS	-	Montane Spruce

### 4.3.2.3 Subgrade Cost Estimate

For each road type, except snow/ice roads, the subgrade cost estimate in \$/km is determined from the equation for the appropriate road group.

Road Group	Equation
1	Refer to subsection 4.3.3(6)(n)
2	$10195 + (140 * \text{SLOPE}\%)$
3	$5067 + (96 * \text{ROCK}\%) + (2998 * \text{LT})$
4	$4318 + (52 * \text{SLOPE}\%) + (2078 * \text{LT}) + (1905 * \text{SBS})$
5	$5111 + (2012 * \text{LT})$
6	$6686 + (88 * \text{SLOPE}\%)$
7	$6288 + (107 * \text{SLOPE}\%) + (103 * \text{ROCK}\%) + (6063 * \text{LT}) + (4316 * \text{ESSF})$
8	$2502 + (65 * \text{ROCK}\%) + (3691 * \text{SBS}) + (3128 * \text{SBPS})$
9	$9525 + (148 * \text{SLOPE}\%) + (107 * \text{ROCK}\%) + (4789 * \text{LT}) - (6283 * \text{MS}) - (6283 * \text{SBPS}) - (3938 * \text{IDF}) - (6283 * \text{MH})$
10	$8236 + (247 * \text{SLOPE}\%)$
11	$21932 + (334 * \text{SLOPE}\%) + (463 * \text{ROCK}\%)$
12	$5445 + (250 * \text{SLOPE}\%) + (3543 * \text{SMR}) + (4785 * \text{LT}) - (3042 * \text{ESSF})$ (\$3492/km set as minimum. If equation yields less than \$3492 then use \$3492)

Where:

Road groups are defined in Table 4-1.

LT	=	1 if a long term road, otherwise = 0
SMR	=	1 if Soil Moisture Regime is “wet”. Otherwise SMR = 0
SBPS	=	1 if road construction is within this biogeoclimatic zone. Otherwise SBPS = 0
SBS	=	1 if road construction is within this biogeoclimatic zone. Otherwise SBS = 0
ESSF	=	1 if road construction is within this biogeoclimatic zone. Otherwise ESSF = 0
MS	=	1 if road construction is within this biogeoclimatic zone. Otherwise MS = 0
MH	=	1 if road construction is within this biogeoclimatic zone. Otherwise MH = 0
IDF	=	1 if road construction is within this biogeoclimatic zone. Otherwise IDF = 0



## 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(7)	\$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) and (7)	\$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>	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*, or
- A forestry licence to cut issued under section 47.6(3) of the *Act* in conjunction with a BCTS road development contract.

“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.
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 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 appraisal data submission to the District Manager before June 1, 2010, and,
    - iii. The net merchantable 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 appraisal data submission to the District Manager on or after June 1, 2010, and
    - iii. **the net merchantable volume in each cutblock within the cutting authority area is comprised of 35% or more red and grey MPB attacked Lodgepole pine, or,**
  - d. Is authorized for harvest under a timber sale licence with a fixed stumpage rate, which meets the criteria set out in the Memorandum of Understanding between the former Revenue Branch and BC Timber Sales dated January 6, 2010 as it may be amended from time to time, and the calculation of the stumpage payable using information provided by a cruise is approved by the Executive Director, Field Operations, or
  - e. Is authorized for harvest 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, 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 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 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.

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