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APR 29 2011

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  
Tony Wideski, Regional Executive Director, Kootenay Boundary Forest Region  
Kevin Dickenson, Regional Executive Director, Thompson Okanagan Forest Region

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

Re: Amendment No. 6 to the *Interior Appraisal Manual*



I hereby approve Amendment No. 6 to the *Interior Appraisal Manual* and attach a copy for your use. The following has been amended:

- Section 1.1 Revised text for Director, District Manager, Minister, Ministry, Ministry of Forests and Range, Pricing Branch, and Regional Manager and stumpage appraisal parameter definitions.
- Section 1.2.1 Revised text for Ministry reorganization name changes.
- Section 1.2.2 Revised text for branch name change.
- Section 1.5.1 Revised text for Ministry reorganization changes.
- Section 3.2 Revised text for branch name change.
- Section 3.3 Revised text for branch name change.
- Section 4.3 Revised text for branch name change.

Section 4.5.1 Revised text for branch name change.

Table 6-1, 6-2, Section 6.1 Tables updated with new average sawlog stumpage rates by forest zone and species.

Section 6.2 Additional text for community wildfire mitigation.

Section 6.3 Revised text for branch name change. Text added for clarification. Annual redetermination date for blanket salvage permits changed to June.

Table 6-3,

Section 6.3 Table updated with new average sawlog stumpage rates by smallest geographic unit.


Section 6.4 Additional text for clarification.

Table 6-4 & 6-5,

Section 6.4 Tables updated with new average sawlog stumpage rates by forest zone and species.

Table A6-3 Five smallwood licences removed. One expiry date corrected.

This amendment will come into force on May 1, 2011. Further amendments or revisions to this manual require my approval.



Steve Thomson

Minister of Forests, Lands and Natural Resource Operations

Attachment

pc: Murray Stech, Director, Pricing Branch, Ministry of Forests, Lands and Natural Resource Operations



Ministry of Forests,  
Lands and Natural  
Resource Operations



## MANUAL REVISION TRANSMITTAL

<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. 6	May 1, 2011
<b>MANUAL CO-ORDINATOR</b>		
Judy Laton Publications/Administrative Co-ordinator		
<b>AUTHORIZATION (Name, Title)</b>		
Murray Stech Director, Timber Pricing Branch		

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

ACTION	(VOL.) CHAPTER-SECTION-SUBJECT		
(Remove/Insert)	TABLE OF CONTENTS	PAGE(S)	COMMENTS
Remove	Chapter 1	3 - 12	After Chapter 1 Tab
Insert		3 - 12	
Remove	Chapter 3	3 - 6	After Chapter 3 Tab
Insert		3 - 6	
Remove	Chapter 4	5 – 6 31 - 32	After Chapter 4 Tab
Insert		5 – 6 31 - 32	
Remove	Chapter 6	1 - 12	After Chapter 6 Tab
Insert		1 - 12	
Remove	Appendix	15 -16	After Appendices Tab
Insert		15 - 16	
INSERT	Letter from Minister and Transmittal Sheet		After Amendments Tab



**“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, **Lands and Natural Resource Operations**;

**“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*, then district manager means an employee of the Ministry, to whom the Minister of **Jobs, Tourism and Innovation** has delegated the minister's powers and duties under section 2 of the *Resort Timber Administration Act*;

**“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, **Lands and Natural Resource Operations**;

**“Ministry”** means Ministry of **Forests, Lands and Natural Resource Operations**;

**“Ministry of Forests and Range”** means the Ministry of Forests, **Lands and Natural Resource Operations**;

**“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);

**“Timber Pricing Branch”** means the Timber Pricing Branch of the Ministry;

**“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 a regional executive director of the Ministry 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, | d. Lumber Average Market Values,                 |
| b. BC Consumer Price Index,       | e. Interior Basic Silviculture Costs by Species, |
| c. US Dollar Exchange rate,       | f. 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 **Timber** Pricing Branch of the Ministry.
  - b. regional managers, regional timber pricing co-ordinators, and employees of the regional revenue sections of the Ministry.
2. The employees of the Timber Administration section, Resort Development Branch of the Ministry 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 **Timber** Pricing Branch.
2. Once approved by the director they become an integral part of this manual.
3. The parameters are published by **Timber** 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 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**

Description	
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.

## 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 **Timber** 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  $\$/\text{m}^3$  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<sup>3</sup>) = 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).

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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 Timber 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.

- 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 **Timber** 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:

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 **Timber** 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

# Miscellaneous Policies

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**6**

## 6.1 Coniferous Average Sawlog Stumpage Rates by Forest Zone and Species

1. a. Each of the following forest zones referred to in Tables 6-1, 6-2, 6-4 and 6-5 is made up of the following forest districts:
  - i. North Central Zone - Fort St. James, Mackenzie, Nadina, Prince George, Quesnel and Vanderhoof Forest Districts.
  - ii. North East Zone - Fort Nelson and Peace Forest Districts.
  - iii. North West Zone - Kalum and Skeena Stikine Forest Districts.
  - iv. South East Zone - Arrow Boundary, Columbia, Headwaters, Kamloops, Kootenay Lake, Okanagan Shuswap and Rocky Mountain Forest Districts.
  - v. South West Zone - 100 Mile House, Cascades, Central Cariboo and Chilcotin Forest Districts.
- b. Where a species of coniferous timber is not listed in Table 6-1, 6-2, 6-4 and 6-5, the rate that shall be used for that species of timber is the rate listed in the column headed as OTHER.

**Table 6-1 Coniferous Average Sawlog Stumpage Rates in \$/m<sup>3</sup> by Forest Zone and Species**

FOREST ZONE	BALSAM	CEDAR	FIR	HEMLOCK	LARCH	L. PINE	SPRUCE	Y. PINE	OTHER <sup>1</sup>
North Central	5.30	-	5.98	-	-	5.04	5.96	-	5.51
North East	2.98	-	-	-	-	3.64	5.74	-	4.66
North West	1.60	1.07	-	1.38	-	6.94	5.62	-	3.03
South East	6.62	9.53	7.10	6.14	8.16	7.03	7.51	3.20	7.29
South West	5.73	12.48	7.27	5.92	8.57	5.76	5.24	-	5.78

<sup>1</sup> Average for the Forest Zone



### 6.1.1 Community Forest Agreements

1. The sawlog stumpage rate for each species of coniferous timber harvested under any cutting authority issued under a Community Forest Agreement is the rate prescribed in Table 6-2 for the forest zone in which the cutting authority area is located.
2. Sections 1.4(1)(d), sections 6.1.2 through 6.5 and section 6.7 through 6.9 of this chapter do not apply to Community Forest Agreement cutting authorities.
3. The stumpage rate determined under this section is redetermined on August 1 of each year in accordance with this section.

### 6.1.2 Woodlot Licences

1. Except as provided in subsection (2) of this section, the sawlog stumpage rate for each species of coniferous timber harvested under a cutting permit issued for a woodlot licence with an effective date after November 30, 2008 is the rate prescribed in Table 6-2 for the forest zone in which the cutting authority area is located.
2. Where a woodlot licence cutting permit has been issued with an effective date after November 30, 2008 for the purpose of using amounts from an eligible extended road amortization agreement in an appraisal, then the stumpage rate will be determined using the procedures in this manual excluding this section.
3. Except as provided in subsection (4) of this section, the sawlog stumpage rate for coniferous timber harvested under a road permit issued for a woodlot licence is the rate prescribed in Table 6-2 for the forest zone in which the timber mark applies.
4. Where a woodlot has an eligible extended road amortization agreement before December 1, 2008 the sawlog stumpage rate for a road permit with an effective date on or after December 1, 2008 is calculated using the procedures in section 6.3.
5. The sawlog stumpage rate for each species of coniferous timber harvested under a blanket salvage permit issued for a woodlot licence is the rate prescribed in Table 6-2 for the forest zone in which the blanket salvage permit applies.
6. The stumpage rate determined under subsections (1), (3) and (5) of this section is redetermined on August 1, each year in accordance with this section.
7. Except as provided in subsections (2) and (4) of this section, sections 1.4(1)(d), 6.1.1, 6.1.3 through 6.5, 6.7 and 6.8 do not apply to woodlot licences.

**Table 6-2 Community Forest Agreements and Woodlot Licences:  
Coniferous Average Sawlog Stumpage Rates in \$/m<sup>3</sup>**

FOREST ZONE	BALSAM	CEDAR	FIR	HEMLOCK	LARCH	L. PINE	SPRUCE	Y. PINE	OTHER <sup>1</sup>
North Central	0.80	-	0.90	-	-	0.76	0.89	-	0.83
North East	0.45	-	-	-	-	0.55	0.86	-	0.70
North West	0.25	0.25	-	0.25	-	1.04	0.84	-	0.45
South East	0.99	1.43	1.07	0.92	1.22	1.05	1.13	0.48	1.09
South West	0.86	1.87	1.09	0.89	1.29	0.86	0.79	-	0.87

<sup>1</sup> Average for the Forest Zone

### 6.1.3 Incidental Conifer in Deciduous Leading Stands

1. Except as provided in section 5.1.1(5), this section applies to coniferous timber in a cutting authority area where the total volume of all deciduous species to be harvested is greater than 70 percent of the total estimated net volume to be harvested.
2.
  - a. The stumpage rate for each species of coniferous timber must be determined by using the stumpage rate prescribed in Table 6-1 for the forest zone in which the cutting authority area is located.
  - b. Where the Crown is responsible for basic silviculture on the cutting authority area, the stumpage rate for each species of coniferous timber shall be the sum of the rate determined under paragraph (a) of this subsection and the silviculture levy determined under section 5.2.4.
3. A stumpage rate determined under subsection 2 shall be redetermined on June 1, of each year in accordance with this section.

## 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 or section 6.2.1, 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, and shall apply to the net merchantable volume on the cutting authority area.
- c. Where the forestry licence to cut is issued without competition for the purposes described in paragraph (a)(i) of this section the sawlog stumpage rate for such species of coniferous timber shall be:
    - i. Except as provided in (ii), the stumpage rate in Table 6-1 for the forest zone in which the cutting authority area is located.
    - ii. If more than one-third of the total volume of coniferous timber on the cutting authority area is damaged timber as defined in section 6.4(3) then the stumpage rate in Table 6-4 for the forest zone in which the cutting authority area is located.
    - iii. When the licence to cut is issued to the lowest eligible bidder on a contract issued for the purpose referred to in paragraph (a)(i) of this subsection, the stumpage rate determined from the applicable paragraph (c)(i) or (c)(ii) above.
  - d. Where the forestry licence to cut meets the requirements set out in paragraph (a)(ii) of this section, the coniferous sawlog stumpage rate shall be \$1.20/m<sup>3</sup> when the licence to cut is issued to the lowest eligible bidder on a contract issued for the purpose referred to in paragraph (a)(ii).
  - e. Notwithstanding any paragraph in this subsection when the timber on the cutting authority area will be scaled as chips or hogged tree material the stumpage rate shall be the 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 and must not be less than the district's variable cost to prepare the timber for sale as calculated by the district manager.
  3. Notwithstanding subsections 1(c) or (d) the stumpage rate for the forestry licence to cut may be determined in accordance with chapters 1, 2, 3, 4 and 5. 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.
  4. Except as provided in section 2.2.2, when 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 **Timber** 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 **scaled based** 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	10.59	Arrow	10.26
		Boundary	11.39
Cascades	7.46	Merritt	7.68
		Lillooet	0.25
Columbia	5.00	Golden	5.27
		Revelstoke	4.66
Headwaters	7.35	Robson Valley	2.94
Kalum	0.48	Nass	0.69
		Kalum	0.46
Nadina	5.68	Lakes	7.94
		Morice	4.82
Peace	4.50	Dawson Creek	4.00
		Fort St. John	4.93
Rocky Mountain	4.77	Cranbrook	3.95
		Invermere	5.85
Skeena Stikine	6.59	Bulkley	9.40
		Kispiox	6.64
		Cassiar	0.25

<b>District is Smallest Geographic Unit</b>			
<b>TSA</b>	<b>Rate (\$/m<sup>3</sup>)</b>	<b>District</b>	<b>Rate (\$/m<sup>3</sup>)</b>
Kamloops	7.42	Kamloops Forest District	6.85
		Headwaters Forest District	7.50
Williams Lake	3.33	Central Cariboo Forest District	3.59
		Chilcotin Forest District	0.31
Prince George	7.15	Fort St. James Forest District	7.95
		Prince George Forest District	7.45
		Vanderhoof Forest District	5.88

<b>District &amp; TSA are the same</b>	
<b>District/TSA</b>	<b>Rate (\$/m<sup>3</sup>)</b>
100 Mile House	4.55
Kootenay Lake	5.76
Fort Nelson *	5.59
Mackenzie	5.33
Okanagan Shuswap	8.10
Quesnel	2.11

\* Regional rate

<b>Regions</b>	
<b>Regions</b>	<b>Rate (\$/m<sup>3</sup>)</b>
RNI	5.59
RSI	6.38

4. If there are no records from which the weighted average sawlog stumpage rate may be determined under paragraphs (a) or (b) of subsection (2) of this section, then the stumpage rate, for each species of coniferous timber, is the rate in Table 6-1 for the forest zone in which the road or blanket salvage permit cutting authority area is located.
5. The stumpage rate for a road permit granted to the holder of a timber sale licence entered into under section 20 of the *Forest Act* will be the same as the stumpage rate for the timber sale licence which entitled the licensee to apply for the road permit.
6. The stumpage rate for a road permit for a licence other than a BCTS licence shall be redetermined on June 1 of each year in accordance with the procedure in this section.
7. The costs of roads authorized for construction under road permits are eligible for inclusion as development cost estimates under section 4.3 in the appraisal of the licensees' first fully appraised tributary cutting authority. These roads will not be considered as existing roads under section 4.3.1.1.3(2).

8. Where a woodlot has an eligible extended road amortization agreement before December 1, 2008 the sawlog stumpage rate for a road permit with an effective date on or after December 1, 2008 is calculated using the procedures in this section.
9. The stumpage rate for a blanket salvage cutting permit shall be redetermined on **June** 1 each year in accordance with the procedures in this section.



## 6.4 Salvage Timber Stumpage Rates

1. This section applies to cutting authorities issued under licences which do not have an allowable annual cut. Salvaged timber is either post harvest material or damaged timber:
2. Post Harvest Material is either:
  - a. wooden culverts and bridges, or
  - b. post logging residue.
3. Damaged Timber is timber that:
  - a. Has been blown down,
  - b. Has been damaged by fire, disease, snow press, or
  - c. Will die within one year, as determined by the district manager, as a result of the affects of the mountain pine beetle, or other forest pests.
  - d. Will be or has been used for trap trees and associated overflow trees.
4. **Except as provided in section 6.2.1(1)(c)(ii)**, the criteria and methodology for the calculation of salvaged timber stumpage rates are:
  - a. Post harvest material may not be combined in the same cutting authority area with damaged timber.
  - b. Except where damage to adjacent or contiguous timber occurs after harvesting is completed on the adjacent primary logging cutting permit area and the harvesting equipment has been demobilized from the area, damaged timber salvage cutting authority areas must be scattered, and not be adjacent to or contiguous with an existing cutting authority area.
  - c. Except as provided in subsection (4)(d) of this section the total area of a clearcut salvage harvesting area shall not exceed 5 hectares.
  - d. Where salvage of only damaged stems through partial cutting will leave a stand that meets minimum stocking standards, the area harvested may be larger than 5 hectares.
  - e. Salvage logging stumpage rates may only be determined for a cutting authority where more than one-third of the total volume of coniferous timber to be harvested in the cutting authority area is damaged timber.

- f. Post harvest salvage may only occur after primary logging has been satisfactorily completed and residue and waste assessments have been submitted to and accepted by the Ministry.
  - g. Salvage cannot occur on a road right-of-way which has an active timber mark associated with it.
  - h. Except as provided in section 2.2.2, a stumpage rate determined under this section is fixed for the term of the cutting authority and all extensions.
5. Where salvaged timber is damaged timber, the sawlog stumpage rate for each species of coniferous timber shall be the rate in Table 6-4 for the Forest Zone in which the cutting authority area is located.
  6. Where the salvaged timber is post harvest material, the sawlog stumpage rate for each species of coniferous timber shall be the rate in Table 6-5 for the forest zone in which the cutting authority area is located.

**Table 6-4 Coniferous Average Sawlog Stumpage Rates for Salvage of Damaged Timber by Forest Zone and Species in \$/m<sup>3</sup>**

FOREST ZONE	BALSAM	CEDAR	FIR	HEMLOCK	LARCH	L. PINE	SPRUCE	Y. PINE	OTHER <sup>1</sup>
North Central	3.18	-	5.38	-	-	3.78	5.36	-	3.31
North East	1.79	-	-	-	-	2.73	5.17	-	2.80
North West	0.96	0.96	-	0.83	-	5.21	5.06	-	1.82
South East	3.97	8.58	6.39	3.68	7.34	5.27	6.76	2.40	4.37
South West	3.44	11.23	6.54	3.55	7.71	4.32	4.72	-	3.47

<sup>1</sup> Average for the Forest Zone

**Table 6-5 Coniferous Average Sawlog Stumpage Rates for Salvage of Post Harvest Material by Forest Zone and Species in \$/m<sup>3</sup>**

FOREST ZONE	BALSAM	CEDAR	FIR	HEMLOCK	LARCH	L. PINE	SPRUCE	Y. PINE	OTHER <sup>1</sup>
North Central	1.33	-	2.99	-	-	2.52	2.98	-	1.38
North East	0.75	-	-	-	-	1.82	2.87	-	1.17
North West	0.40	0.86	-	0.35	-	3.47	2.81	-	0.76
South East	1.66	7.62	3.55	1.54	4.08	3.52	3.76	1.60	1.82
South West	1.43	9.98	3.64	1.48	4.29	2.88	2.62	-	1.45

<sup>1</sup> Average for the Forest Zone

**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	
A61108	2011-08-31
A61109	2011-06-30
A65442	2011-10-31
A73171	
A77509	
A80600	
A81242	2011-12-06
A81700	2011-12-05
A82224	2012-06-06
A82520	
A82523	
A83857	2011-06-24
A83858	2011-06-24
A84161	
A84685	
A85417	
A85446	
A85448	
A85452	
A86036	
PA16	

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