



MEMORANDUM

File: 195-30/CAPP

May 28, 1999

To: Regional Managers

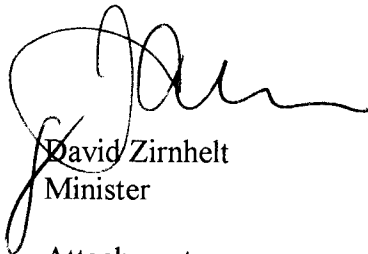
From: The Honourable David Zirnelt
Minister of Forests

RE: Amendment No. 1 to the *Coast Appraisal Manual*

I hereby approve Amendment No. 1 to the *Coast Appraisal Manual*, and attach a copy of it for your use. The following sections are amended:

Section 2.2	Clarification of objection period.
Section 4.4.2	Clarification of distance measurement.
Table 4-8	Correction of typographical error.
Table 6-1	Update of <i>Forest Act</i> references.
Section 7.0	Market Pricing System stumpage rate also applies to Section 23(1)(e) timber sale licences.
Section 7.2.5	Housekeeping.
Section 7.3	Second growth AMVs may now be used with the Market Pricing System.
Section 7.4.	Addition of a high development cost discount factor for timber sale licences appraised with Market Pricing System where extraordinary development costs are the responsibility of the licensee.

This amendment will come into force on June 1, 1999. Further amendments or revisions to this manual require my approval.



David Zirnelt
Minister

Attachment

pc: Bill Howard, Director, Revenue Branch

All Subscribers, *Coast Appraisal Manual*



FOR FURTHER INFORMATION CONTACT:

George Silvestrini
Sr. Timber Pricing Forester (Coast)
Revenue Branch
Ministry of Forests
Victoria, B.C.
V8W 3E7
Phone: 387-8377
E-mail: george.silvestrini@gems9.gov.bc.ca
FAX: 387-5670

MANUAL TITLE

Coast Appraisal Manual

REVISION No.
Amendment No. 1

ISSUE DATE
June 1, 1999

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	Table of Contents	iii-iv	
INSERT	Table of Contents	iii-iv	
REMOVE	Chapter 2	3 - 4	
INSERT	Chapter 2	3 - 4	
REMOVE	Chapter 4	25 - 26	
INSERT	Chapter 4	25 - 26	
REMOVE	Chapter 6	7 - 8	
INSERT	Chapter 6	7 - 8	
REMOVE	Chapter 7	1 - 12	
INSERT	Chapter 7	1 - 12	
REMOVE	Index	1-4	
INSERT	Index	1-4	
INSERT	Minister's Letter and Manual Transmittal		After Amendments Tab

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2.2 Time Schedule – Appraisals and Reappraisals

Timeliness is an important factor in the stumpage appraisal process. The following schedule applies:

1. For each new cutting authority, the licensee shall include with the application to the District Manager a completed Coast Appraisal Data Sheet and appropriate support information. When the data is provided, the District Manager will proceed as in Subsection 3 of this section.
2. For a reappraisal, the licensee shall provide all data, subject to Section 2.3 (3), and it must be received by the District Manager at least 45 calendar days prior to the anniversary of the cutting authority term (effective date). If the licensee fails to provide all data, then the District Manager:
 - a. may notify the licensee, in writing, by the due date for reappraisal data (45 calendar days prior to effective date) and request that data known to have changed since the previous appraisal be submitted within 15 calendar days, and
 - b. if the data is not received within 15 calendar days, use the best data available at the district office 30 calendar days prior to the effective date.
3. The District Manager or designate reviews the available data and if in agreement with the submission, signs the data sheet and advises the licensee in writing. If no data was submitted for reappraisal as requested by the District Manager, then notifying the licensee is not required and Subsection 4, 5 and 6 of this section do not apply.
4. The District Manager shall notify the licensee, in writing, of any changes made to the appraisal data sheet.
5. The District Manager or the licensee may request a meeting to discuss the appraisal data submission.
6. At the meeting, the licensee may only clarify data previously submitted. The District Manager may revise the appraisal data sheet as a result of the meeting.
7. The District Manager shall provide a signed appraisal data sheet to the regional office and the licensee.
8. Regional revenue staff will advise the licensee, and District Manager in writing, of any further changes made to the appraisal data sheet.

9. Regional revenue staff will notify the licensee, in writing, of the stumpage rate and the summary of appraisal information used in determining the stumpage rate.
10. Within twenty-one (21) days of the issue date of the stumpage advisory notice, the licensee may notify regional revenue staff, in writing, of any objection to the information contained in the stumpage advisory notice that could be resolved without a review or appeal. At this point the objection is not considered a review or appeal under the *Forest Act* (Section 143 to 150).
11. Regional revenue staff will notify the licensee, in writing, if the objection referred to in Section 10 above cannot be resolved. In this notification the regional revenue staff will indicate that the 21-day time requirement for notice for review specified in Section 144 (3) of the *Forest Act*, will commence upon receipt of this notification.

4.4.2 Helicopter Logging

The cost estimate given below applies to the net cruise volume that requires helicopter yarding.

Costs include falling and bucking, helicopter yarding, logging truck loading, landing construction, choker chasing, rental/lease/depreciation costs of a barge (if required), bag booming, towing of bag boomed logs to local tie up or sorting area, crew transportation (by air, water, or land), and camp mobilization/demobilization (including barge movement). Costs for these activities may be borne by the licensee or the contractor.

The tree-to-truck cost estimate for helicopter logging is calculated as follows:

$$$/m^3 = 66.49 + 4.14 (D) + 0.0105 (\text{Hembal } \%)$$

Where:

D = One-way average horizontal actual flight distance in kilometres, from the setting to the 'drop zone' (e.g., landing, barge or water), rounded to the nearest 0.1 km.

$$\text{Hembal } \% = \frac{\frac{\text{hemlock net cruise volume}}{\text{helicopter yarded}} + \frac{\text{balsam net cruise volume}}{\text{helicopter yarded}}}{\frac{\text{Total net cruise volume}}{\text{Helicopter yarded}}} \times 100$$

Hembal % is calculated based on the species and total net cruise volume for the areas being helicopter yarded only.

In addition, the following phases, when applicable, are estimated as detailed elsewhere in this manual:

- Development (Section 4.3),
- Truck Hauling (Section 4.5.1),
- Dump, Sort, Boom and Scale (Section 4.5.2.1),
- Towing or Barging (Section 4.5.2.2),
- Routine Maintenance (Section 4.5.3),
- Road and Land Use Charges (Section 4.5.4),
- Specified Operations (Section 4.1.1),

- Overhead (Section 4.6.1), and
- Accommodation (Section 4.6.3).

A cost estimate for the crew transportation phase (Section 4.6.2) is not applicable.

Table 4-7: Towing Cost Estimates

Code	Point of Origin	P/A	\$/m3	Code	Point of Origin	P/A	\$/m3
ALBE	ALBERNI	A	0.00	BUIM	M. OF BUTE INLET	G	1.79
CHCK	CHINA CREEK	A	0.76	KIIM	M. OF KINGCOME INLET	G	2.84
COCK	COLEMAN CREEK	A	0.85	KNIM	M. OF KNIGHT INLET	G	3.06
MTCK	MacTUSH CREEK	A	0.78	LOUM	M. OF LOUGHBOROUGH	G	2.00
SARV	SARITA RIVER	A	0.99	TOIM	M. OF TOBA	G	1.81
SPCK	SPENCER CREEK	A	0.89	NACK	NAKA CREEK	G	2.38
TOBY	TOQUART BAY	A	1.14	NOBY	NORTHWEST BAY	G	1.19
UCHU	UCHUCKLESIT	A	0.94	PHAR	PHILLIPS ARM	G	1.95
UCLU	UCLUELET	A	1.21	PTEB	PORT ELIZABETH	G	2.55
CHEM	CHEMAINUS	C	0.00	PTHD	PORT HARDY	G	2.93
COBY	COWICHAN BAY	C	0.89	PTHV	PORT HARVEY	G	2.37
JORV	JORDAN RIVER	C	1.56	PTMN	PORT McNEILL	G	2.70
LADY	LADYSMITH	C	0.78	PTNE	PORT NEVILLE	G	2.32
NANA	NANAIMO	C	0.91	PORV	POWELL RIVER	G	1.39
PTRE	PORT RENFREW	C	1.81	SENA	SECOND NARROWS	G	0.96
SOOK	SOOKE	C	1.47	SYIN	SEYMOUR INLET	G	3.77
VICT	VICTORIA	C	1.24	SEBY	SOUTHWEST BAY	G	2.28
AGAM	AGAMEMNON	G	1.18	SQUA	SQUAMISH	G	0.94
BECV	BEAVER COVE	G	2.61	STIL	STILLWATER	G	1.24
COUR	COURTENAY	G	1.54	TEAR	TEAKERNE ARM	G	1.67
DRIN	DRURY INLET	G	3.04	THIN	THEODOSIA INLET	G	1.67
EVRV	EVE RIVER	G	2.32	THSO	THOMPSON SOUND	G	2.68
FOHA	FORWARD HARBOUR	G	2.13	WASA	WAKEMAN SOUND	G	3.00
FRAR	FREDERICK ARM	G	1.90	GAMB	GAMBIER ISLAND	G	0.00
BUIH	H. OF BUTE INLET	G	2.20	HOAB	ABOVE HOPE BRIDGE	P	1.52
JEIH	H. OF JERVIS INLET	G	1.61	CHWK	CHILLIWACK	P	1.05
KIIH	H. OF KINGCOME INLET	G	3.06	HALF	FOOT HARRISON LAKE	P	1.24
KNIH	H. OF KNIGHT INLET	G	3.06	PILF	FOOT OF PITT LAKE	P	0.80
LOUH	H. LOUGHBOROUGH	G	2.19	HABY	HARRISON BAY	P	1.11
SEIH	H. OF SECHELT INLET	G	1.49	HATZ	HATZIC	P	0.96
TOIH	H. OF TOBA INLET	G	2.03	HALH	HEAD HARRISON LAKE	P	1.60
INAR	INDIAN ARM	G	1.11	PILH	HEAD OF PITT LAKE	P	0.94
KLBY	KELSEY BAY	G	2.17	HALM	MID HARRISON LAKE	P	1.44
MNCK	McNAB CREEK	G	0.85	PIRV	PITT RIVER BRIDGE	P	0.00
MEBY	MENZIES BAY	G	2.02	SICK	SILVERHOPE CREEK	P	1.41
MESD	MEREWORTH SOUND	G	3.41	WHON	WHONNOCK	P	0.86
JEIM	MOUTH JERVIS INLET	G	1.21				

P/A = Point of Appraisal as follows:

- A = ALBE - ALBERNI - the head of Alberni Inlet;
- C = CHEM - CHEMAINUS - tie-up grounds in the vicinity of Chemainus representing the facilities from Nanaimo Harbour to Cowichan Bay;
- G = GAMB - GAMBIER ISLAND - representing all facilities in Howe Sound area;
- P = PIRV - PITT RIVER BRIDGE - representing the facilities along the Fraser River and Pitt River.

Table 4-8: Barging Cost Estimates

Code	Point of Origin	P/A	\$/m3	Code	Point of Origin	P/A	\$/m3
BACK	BARR CREEK	A	5.05	BOIN	BOSWELL INLET /SECURITY BAY	G	6.37
BLBY	BLOWHOLE BAY	A	4.76	CAIS	CAMPBELL ISLAND	G	7.15
CLCK	CLEAGH CREEK	A	5.83	DIBY	DINAN BAY	G	10.98
COHA	COAL HARBOUR	A	6.02	ELHA	ELCHO HARBOUR	G	7.27
CYRV	CYPRE RIVER	A	4.17	FEBY	FERGUSON BAY	G	10.87
EAİN	EASY INLET	A	5.29	RIIH	HEAD OF RIVERS INLET	G	6.65
ESIN	ESPINOSA INLET	A	5.08	SBEH	HEAD OF SOUTH BENTINCK ARM	G	7.75
GORV	GOLD RIVER	A	4.82	HNRV	HONNA RIVER	G	9.99
HEBY	HEAD BAY	A	4.74	KMBY	KEMANO BAY	G	9.12
BESH	HEAD OF BEDWELL SOUND	A	4.27	KHIN	KHUTZEYMATEEN INLET	G	10.20
HENO	HECATE CHANNEL - NOOTKA	A	4.77				
HOLB	HOLBERG	A	6.26	KIMS	KIMSQUIT	G	7.84
HORV	HOUSTON RIVER	A	4.70	KLEM	KLEMTU	G	7.54
HUCK	HUSHAMU	A	6.11	KUIN	KUMEALON INLET	G	9.19
INGE	INGERSOLL	A	5.86	KWBY	KWATNA BAY/MINERVA CREEK	G	7.18
JELA	JEUNE LANDING	A	6.00	KWRV	KWINAMASS RIVER	G	10.16
KEIN	KENDRICK INLET	A	4.65	MCBY	McCLINTON BAY	G	11.04
KOHA	KOPRINO HARBOUR	A	5.73	MOIN	MOSES INLET/INRIG BAY	G	6.68
KUCV	KULTUS COVE	A	5.90	NAHA	NADEN HARBOUR	G	10.73
MCCK	McCURDY CREEK	A	4.80	NABY	NASS BAY	G	10.39
MORV	MOOYAH RIVER	A	4.65	NORV	NOOTUM RIVER	G	6.82
OUIIN	OUOUKINSH INLET	A	5.35	OCFA	OCEAN FALLS	G	7.18
PLHA	PLUMPER HARBOUR	A	4.61	POIS	PORCHER ISLAND	G	9.44
PTEL	PORT ELIZA	A	4.93	PRRU	PRINCE RUPERT	G	9.57
RACV	RANKIN COVE	A	4.38	RESO	RENNELL SOUND	G	10.03
STCV	STEAMER COVE	A	4.29	REPA	RENNERS PASSAGE	G	10.01
TLRV	TLUPANA RIVER	A	4.72	SCRV	SCOTIA RIVER	G	10.17
TSRV	TSOWWIN	A	4.70	SWIN	SEWELL INLET	G	9.54
WIHA	WINTER HARBOUR	A	5.73	SKIN	SKIDEGATE INLET	G	9.97
ZEBΑ	ZEBALLOS	A	5.14	SOBY	SOUTH BAY	G	10.03
ALAR	ALICE ARM	G	10.85	STEW	STEWART	G	11.15
ALBY	ALLIFORD BAY	G	9.97	TASU	TASU SOUND	G	9.51
BEAN	BEATTIE ANCHORAGE	G	9.50	TUIN	TUCK INLET	G	9.67
BECO	BELLA COOLA	G	7.53	WECK	WEEWANIE CREEK	G	8.76
BIBY	BISHOP BAY	G	8.43	WOCH	WORK CHANNEL	G	10.20

Note: P/A = Point of Appraisal as defined on the previous page.

* Includes river towing.

6.6 Miscellaneous Stumpage Rates

For the purpose of determining stumpage rates for certain special forest products, including deciduous species, low grade logs and timber in specified areas listed under this section, the miscellaneous stumpage rates tables are to be used.

6.6.1 Special Forest Products and Other Miscellaneous Rates

Table 6-1 is to be used for determining stumpage rates for the specified products when scaled.

Table 6-1: Miscellaneous Stumpage Rates*Vancouver Forest Region and North Coast Forest District*

Coniferous Species	Product	Reserve Rate
Cedar & other	Shake and Shingle Bolts and Blocks	\$ 5.30/m ³
Cedar	Shakes - Handsplit	\$ 6.00/m ³
Cedar	Shakes - Blanks	\$ 7.20/m ³
Cedar	Fence Posts and Fence Rails	\$ 3.00/m ³
Cedar	Sticks and Stakes (round or split)	\$ 2.00/m ³
Cedar	Hop Poles	\$ 1.30/m ³
Cedar & other	Cants *	\$ 9.60/m ³
Cypress	Cants *	\$ 9.60/m ³
Yew	All	\$ 0.25/m ³
<i>Deciduous Species</i>		
Alder & Cottonwood	The lesser of the appraised stand as a whole reserve rate, reduced if applicable (CVP only), or	\$1.00/m ³
All other Deciduous Species	The reserve rate is	\$1.00/m ³
<i>All Species</i>		
All Species	Grade Y	\$ 0.25/m ³
All Species	Firewood	\$ 1.00/m ³
All Species	Christmas Trees: less than 3m	\$ 0.20 each
	3 to 5m	\$ 1.00 each
	More than 5m	\$ 1.50 each
All Species	Logs salvaged in the Vancouver Log Salvage District under the <i>Forest Act</i> , Part 9, and stray logs salvaged elsewhere in coastal waters below the high tide mark (unless logs are salvaged from an area while it is under closure under the <i>Forest Act</i> , Section 126).	\$ 0.70/m ³
All Species	Logs salvaged at Wahleach Island catchment basin operated by B.C. Debris Control Board.	\$ 0.25/m ³

* Note: Cants are produced from dead and down post logging material that would not make a sawlog as determined by the regional manager.

Market Pricing System

7

The Market Pricing System (MPS) policy provided in this chapter is to be used only for timber sale licences awarded under Section 20 and 21 of the *Forest Act* on or after January 1, 1999.

Where a timber sale licence with stumpage rates calculated using MPS does not receive any bids and is subsequently directly awarded under the authority of Section 23 (1)(e) of the *Forest Act*, the MPS upset stumpage rate will be used.

Chapters 3, 4, 5 and 6 of this manual are only to be used for Section 20 and 21 timber sale licences where directly referenced in Chapter 7.

7.1 Market Pricing System Introduction

The Market Pricing System (MPS) is the basis for determining sawlog stumpage rates for timber sale licences awarded under Section 20 and 21 of the Forest Act, subject to a minimum stumpage rate. Sections 2.1 (3) and (4) of this manual provide the methods that are used for deriving stumpage rates for specific products and extraordinary situations.

MPS is a method of estimating the stumpage value of a cutting authority area based on the results of previous similar cutting authority areas that were sold competitively.

MPS can only be used where there is complete appraisal data available for the cutting authority area. Where data is not available, see Section 6.2.

The MPS upset stumpage rate and bonus bid applies to coniferous sawlogs only. All deciduous species, special forest products and Y grade logs have a default price listed under Section 6.6.

7.2 MPS Principles and Procedures

7.2.1 MPS Appraisals

The initial upset stumpage rate will be calculated using the *Coast Appraisal Manual* and monthly parameters (selling prices and consumer price index (CPI) in effect on the date of calculation (appraisal effective date). This rate plus the bonus bid remains in effect from the date of award of the sale until the next quarterly adjustment.

7.2.2 MPS Stumpage Adjustments

Unless a cutting authority or the application and tender for a timber sale licence specifies that stumpage rates are fixed for a specified period or for the full term of the cutting authority, stumpage rates are adjusted quarterly on January 1, April 1, July 1, and October 1 of each year.

At the time of the quarterly adjustment, the MPS upset rate will be recalculated based on the equations applicable for the appraisal effective date and the cutting authority specific data. The monthly parameters (selling prices and CPI) effective for the month of the adjustment will be used in the calculation instead of the original values. All other data (including the estimated number of bidders) remain unchanged.

This process is repeated quarterly until the cutting authority is reappraised.

7.2.3 Reappraisals for MPS Appraisals

Revised data and revised monthly parameters will be used with the equations in effect on the reappraisal date. The original bonus bid remains in effect.

7.2.4 Calculation Conventions

Stumpage rate calculations are performed according to the methods specified in the document entitled, *Specifications: Calculating Stumpage Rates for Coast Appraisals* for the *Market Pricing System* approved by the Director, Revenue Branch.

7.2.5 Methodology

Calculation of the upset stumpage rate for Small Business Forest Enterprise Program (SBFEP) timber sale licences issued under Section 20 and 21 of the *Forest Act* after January 1, 1999, will be done using the following methodology:

1. Calculate a preliminary market stumpage price using the equation in Section 7.4.2 with the variables as defined and the average number of bidders. Apply the discount factor to the preliminary market stumpage price to calculate the preliminary upset stumpage rate.
2. Calculate the estimated number of bidders using the equation in Section 7.4.3 with the variables for the timber sale.
3. Calculate the market stumpage price using the equation in Section 7.4.4, the variables for the timber sale and the estimated number of bidders calculated in Section 7.4.3.
4. Calculate the upset stumpage price by discounting the market stumpage price calculated in Section 7.4.4 using the appropriate discount factor in Section 7.4.5.

One stumpage rate is determined for all appraised coniferous sawlogs in each cutting authority area. Other products and deciduous species are priced using miscellaneous stumpage rates as specified under Section 6.6.

7.3 Log Selling Prices

Invoiced (f.o.b.) log market values are compiled from prime, domestic, arms-length sales the Alberni Inlet east of a line drawn south from Amphitrite Point; Johnstone Strait; the Queen Charlotte Strait south of a line drawn west from Cape Caution; and the Fraser River west of the bridge at the confluence of the Pitt River.

For the Market Pricing System a set of average log market values by species and log grade is developed using sales data for each one-month reporting period. The one-month sales data is used to produce a schedule of average market values by species and log grade for mature timber stumpage rate determinations published monthly by Revenue Branch for stumpage rate calculations.

The same one-month schedule is adjusted on a species grade level to create a schedule for MPS second growth average log market values to be used for second growth MPS stumpage rate determinations. See Section 2.7 for the definition of second growth.

The second growth schedule adjustment table will be reviewed and/or updated as determined by the Director, Revenue Branch.

7.3.1 Log Grade Percentage

See Section 3.2.

7.3.2 Calculation of Stand Selling Price

See Section 3.3.

7.4 MPS Stumpage Calculations

7.4.1 List of MPS Variables

MARKET STUMPAGE PRICE	Market Stumpage Price for the cutting authority in \$/m ³ .
ALP	Average log selling price estimate (\$/m ³) based upon log grades and species for the cutting authority area, and schedules of log market values collected and published by Revenue Branch.
VPH	Volume per hectare in m ³ /ha. Calculated by dividing the total net coniferous cruise volume (m ³) by the total merchantable area (ha).
HP	Fraction of coniferous volume that will be helicopter logged. This is calculated by dividing the coniferous volume to be harvested by helicopter by the cutting authority area's total net cruise volume.
SOR	The untrended specified operation cost estimate (\$/m ³) as determined by the Regional Appraisal Coordinator.
HD	Truck haul distance (km).
ln (NB)	The natural logarithm of the number of bidders competing for the cutting authority.
VOL	Total net cruise volume of coniferous timber (m ³).
CPIF	BC Consumer Price Index (P110000) for current month divided by the base CPI of 109.3.

7.4.2 Preliminary Upset Stumpage Rate (Step 1)

Using the equations below, calculate the preliminary upset stumpage rate.

$$\begin{aligned} \text{Preliminary Market Stumpage Price} = & [-56.1836 + 0.9916 (\text{ALP}/\text{CPIF}) + 14.6050 \\ & (\text{VPH}/1000) - 36.8188 (\text{HP}) - 6.4322 (\text{RS}) - \\ & 0.7053 (\text{SOR}/\text{CPIF}) - 0.1232 (\text{HD}) + \\ & 10.4944 * \ln (\text{NB}) - \text{FD}] * \text{CPIF} \end{aligned}$$

Where:

RS = 1, where the cutting authority area is accessible only by air or water and is not serviced by public ferries.
Otherwise RS = 0.

FD = 9.2977 (North Coast Forest District)
16.1047 (Port McNeill Forest District)
19.1108 (Mid Coast Forest District)
15.6639 (Queen Charlotte Islands Forest District)

Otherwise FD = 0

NB = 5.3 (Coastal average number of bidders)

Preliminary Upset Stumpage Rate (\$/m³) = Preliminary Market Stumpage Price * (1-Discount Factor)

Where:

Discount factor = 0.30 or DCDF (see Section 7.4.5.2)

7.4.3 Number of Bidders (Step 2)

Using the equation below calculate the estimated number of bidders.

$$\begin{aligned} \text{Number of Bidders} = & 2.4176 + 0.03876 (\text{Margin/CPIF}) + 0.09650 (\Delta \text{ALP/CPIF}) + \\ & 0.1760 (\text{VOL}/1000) - 0.00247 (\text{VOL}/1000)^2 - 2.2607 (\text{HP}) - \\ & 2.0634 (\text{BARGEDUM}) - 2.5571 (\text{CTDUM}) - 2.2939 \\ & (\text{SKYDUM}) - 2.9484 (\text{ADUM}) - 2.5990 (\text{BLOWD}) + \text{FD} \end{aligned}$$

If VOL is greater than 35 000, then VOL = 35 000.

If the calculated number of bidders is less than 2, then number of bidders = 2.

Where:

Margin = average log price current month - preliminary upset stumpage rate

Δ ALP = ALP current month minus ALP previous month (\$/m³)

FD = 1.0440 (South Island Forest District)

Otherwise FD = 0

The following variables take a value of 1 if the cutting authority area requires these specified operations, otherwise they are set to zero.

BARGEDUM BARGEDUM = 1, where part of the route from local tie-up grounds at the appraised point of origin to point of appraisal is exposed to the open ocean swell. Otherwise BARGEDUM = 0.

Only points on the West Coast of Vancouver Island north of Port Renfrew, (except those routes totally east of a line drawn from Cape Beale to Amphitrite Point, including Ucluelet Harbour), and all points north of Cape Caution on the mainland are considered to require barge transportation.

CTDUM CTDUM = 1, where the volume harvested from the cutting authority area is by commercial thinning. Otherwise CTDUM = 0.

Commercial thinning is a silviculture treatment that "thins" out overstocked second growth stands by removing trees that are large enough to be manufactured into lumber, post or pole products. It is carried out to improve the health and

growth rate of the remaining crop trees. The cut is from "below" for the entire even-aged stand.

SKYDUM

SKYDUM = 1, where the cutting authority is harvested using a skyline system. Otherwise SKYDUM = 0.

Skyline logging includes any logging method that has short span, long span, or multispan systems using standing or running lines.

Logs must be a suspended clear of the ground to qualify as a skyline system and the average yarding distance must be greater than 300 m measured from the landing.

ADUM

ADUM = 1, where an A-frame is used to yard timber on the cutting authority area. Otherwise ADUM = 0.

A-frame logging uses an A-frame spar with a yarder mounted on a large log float. The float is positioned along the shoreline and logs are yarded directly from the stump to the shore.

BLOWD

BLOWD = 1, where 50% or more of the net cruise volume in a cut block is blowdown. Otherwise BLOWD = 0.

7.4.4 Market Stumpage Price (Step 3)

Using the equation below enter the number of bidders calculated from Step 2.

$$\text{Market Stumpage Price} = [-56.1836 + 0.9916 (\text{ALP/CPIF}) + 14.6050 (\text{VPH}/1000) - 36.8188 (\text{HP}) - 6.4322 (\text{RS}) - 0.7053 (\text{SOR/CPIF}) - 0.1232 (\text{HD}) + 10.4944 * \ln (\text{NB}) - \text{FD}] * \text{CPIF}$$

Where:

FD = 9.2977 (North Coast Forest District)

16.1047 (Port McNeill Forest District)

19.1108 (Mid Coast Forest District)

15.6639 (Queen Charlotte Islands Forest District)

Otherwise FD = 0

NB = Number of bidders calculated in Step 2. Must not be less than 2.

7.4.5 Upset Stumpage Rate (Step 4)

For each cutting authority area, the MPS upset stumpage rate is determined by selecting the greater of:

- the MPS upset stumpage rate, or
- the prescribed minimum stumpage rate.

The upset stumpage rate is calculated by taking the Market Stumpage Price result and reducing it using the discount factor or the high development cost discount factor (DCDF).

7.4.5.1 Discount Factor

For cutting authorities where the development is the responsibility of the Crown or the test for high development costs from Section 7.4.5.2 is not met, then the upset stumpage rate is:

$$\text{Upset Stumpage Rate (\$/m}^3\text{)} = \text{Market Stumpage Price (From Step 3)} * (1 - \text{Discount Factor})$$

Where:

$$\text{Discount Factor} = 0.30 \text{ or DCDF (see Section 7.4.5.2)}$$

7.4.5.2 High Development Cost Discount Factor

For cutting authorities appraised with MPS where some or all of the development is the responsibility of the TSL holder, a revised discount factor will be used where the test for a high development cost discount factor (DCDF) is proven below:

If:

$$\text{DCDF} > 0.30$$

Where:

$$\text{DCDF} = (\text{DC}-3.10)/\text{MSP, (round to nearest 0.01)}$$

DC = Estimated development cost borne by the licensee, using Section 4.3 of this manual

MSP = Market Stumpage Price calculated using discount factor of 0.30 (Section 7.4.4)

The upset stumpage rate is now calculated by using the DCDF as the discount factor and recalculating Steps 1 to 4 (Sections 7.4.2 through 7.4.5.1).

7.4.6 Prescribed Minimum Stumpage Rate

The minimum stumpage rate is prescribed by the Minimum Stumpage Rate Regulation (BC Reg. 354/87). The current minimum stumpage rate is \$0.25 per cubic metre.

7.4.7 Total MPS Stumpage Rate

The total stumpage rate is the upset stumpage rate plus any bonus bid.

7.5 Deciduous and Miscellaneous Forest Products

The stumpage rate for deciduous sawlogs, all species grade “Y” and other miscellaneous forest products are found in Section 6.6.

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