



File: 195-30/CAAP

May 16, 1996

To: All Regional Managers

From: Dennis Streifel
Minister

Re: Coastal Appraisal Manual

I hereby approve Amendment 1 to the *Coast Appraisal Manual*. This amendment will come into force on July 1, 1996. The amendment clarifies sections of the *Coast Appraisal Manual* and reflects changes in policy.

The following sections are amended:

Section 3.3 Change pricing policy to recognize the difference in value between Sitka spruce and Engelmann spruce.

Section 6.6.2 Clarify the effective dates for Table 6-2

for Dennis Streifel
Minister

Attachment: (1)

cc: Bill Howard, Director, Revenue Branch
All Subscribers, Coastal Appraisal Manual



FOR FURTHER INFORMATION CONTACT:

John Cook
Sr. Timber Pricing Forester (Coast)
Revenue Branch
Ministry of Forests
Victoria, B.C.
V8W 3E7
Phone: 356-7675
PROFS userid: J1COOK
FAX: 387-5670

MANUAL TITLE	
Coast Appraisal Manual	
REVISION No. Amendment 1	ISSUE DATE July, 1996
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	i - ii	
INSERT	Table of Contents	i - ii	
REMOVE	Chapter 3	9 - 10	
INSERT	Chapter 3	9 - 11	
REMOVE	Chapter 6	9	
INSERT	Chapter 6	9	
INSERT	Parameters		After Parameters Tab
INSERT	Minister's Letter, Manual Transmittal		After Amendments Tab

Table of Contents

Terms and Conventions Used in this Document

1 Introduction

1.1 Terms of Reference.....	1-2
1.2 Area of Application.....	1-3
1.3 Cutting Authority.....	1-4
1.3.1 Cutting Authority Area.....	1-4
1.4 Responsibility for Stumpage Determination.....	1-5
1.5 Comparative Value Timber Pricing	1-6
1.6 Stumpage Adjustments	1-7

2 Appraisal Principles and Procedures

2.1 Types of Determination.....	2-2
2.2 Time Schedule - Appraisals and Reappraisals	2-3
2.3 Reappraisal	2-5
2.4 Fixed Stumpage Rate and Extensions of Term.....	2-9
2.5 Point of Appraisal	2-11
2.6 Calculation Conventions	2-12
2.7 Immature Coniferous Timber	2-13

3 Selling Price Estimation

3.1 Average Market Value (AMV) Determination.....	3-2
3.2 Log Grade Percentages.....	3-3
3.2.1 Billing History Record.....	3-3
3.2.2 Log Grade Percentage Criteria	3-4
3.2.3 Source of Log Grade Percentage for Each Cutting Authority	3-5
3.2.3.1 Log Grade Percentages for a Cutting Authority Within the Geographic Boundaries of a Tree Farm Licence	3-5
3.2.3.2 Log Grade Percentages for a Cutting Authority (not under the Small Business Forest Enterprise Program) Within a Timber Supply Area	3-6
3.2.3.3 Log Grade Percentages for a Cutting Authority under the Small Business Forest Enterprise Program Within a Timber Supply Area	3-8
3.2.4 Damaged Timber.....	3-9
3.3 Calculation of Stand Selling Price (SP).....	3-10
3.3.1 Low Volume Cypress Exception	3-11

4 Operating Cost Estimation

4.1 Cost Estimates	4-2
4.1.1 Specified Operations	4-3
4.2 Appraisal Data Requirements	4-4
4.3 Development	4-5
4.3.1 Development Cost Categories	4-6
4.3.1.1 Development Cost Allocation	4-8
4.3.1.1.1 Development Cost Estimates on Crown Lands	4-9
4.3.1.1.2 Development Cost Estimates for Full Appraisal on Timber Licence (TL) Cutting Authorities	4-10
4.3.1.1.3 Development Cost Estimates on Private Land	4-10
4.3.1.1.4 Existing Roads and Structures	4-11
4.3.1.1.5 Extended Road Amortization	4-11
4.3.2 Tabular Road and Bridge Cost Estimates	4-12
4.3.2.1 Subgrade Construction	4-12
4.3.2.2 Drainage Structures	4-16
4.3.2.3 Additional Stabilizing Material	4-18
4.3.3 Detailed Engineering Cost Estimates	4-21
4.3.3.1 Data Requirements	4-21
4.4 Tree To Truck	4-23
4.4.1 Conventional Logging	4-23
4.4.2 Helicopter Logging	4-24
4.5 Log Transportation	4-26
4.5.1 Truck Hauling	4-26
4.5.2 Water Transportation	4-27
4.5.2.1 Dump, Sort, Boom and Scale	4-27
4.5.2.2 Towing or Barging	4-27
4.5.3 Routine Maintenance and Deactivation	4-31
4.5.4 Road and Land Use Charges	4-31
4.6 Administration and Other Costs	4-33
4.6.1 Overhead	4-33
4.6.2 Woods Run	4-33
4.6.3 Accommodation	4-34
4.6.4 Low Volume Cost Estimate Additive	4-35
4.7 Total Logging Cost Estimate	4-36
4.8 Basic Silviculture	4-37
4.9 Cost Trend	4-38

5 Stumpage Rate Determination

5.1 Indicated Stumpage Rate	5-2
5.2 Value Index	5-3
5.3 Mean Value Index	5-4
5.4 Market Value Indexing	5-5
5.5 Base Rate	5-6

- b. if there is no such billing history record, the forest officer will determine the log grade percentages for that species in accordance with Section 3.2.2, (5.).

3.2.4 Damaged Timber

If the regional manager determines that the timber in a cutting authority area is significantly damaged, then Sections 3.2.1, 3.2.2 and 3.2.3 will not apply to the appraisal or reappraisal of the cutting authority area. The log grade percentages for the cutting authority area being appraised or reappraised will be estimated from available site specific information.

3.3 Calculation of Stand Selling Price (SP)

The Species Selling Price (SSP) in \$/m³ for each species of timber is determined using the percentage of each log grade and the corresponding average market value, as follows:

$$SSP = \frac{(\% \text{ grade B}) * (\text{AMV grade B}) + (\% \text{ grade C}) * (\text{AMV grade C}) + \text{etc.}}{100}$$

The selling price for each species of timber is rounded to the nearest cent and used in the formula below to determine the stand Selling Price (SP) in \$/m³, as follows:

$$SP = \frac{(\text{balsam SSP}) * (\text{balsam net cruise volume}) + (\text{cedar SSP}) * (\text{cedar net cruise volume}) + \text{etc.}}{\text{Total Net Cruise Volume (m}^3\text{)}}$$

For appraisals and reappraisals, in all cases and without regard to utilization requirements, the stand selling price is based upon the net cruise volumes and species selling prices of the following species of timber:

Alder	Fir
Balsam	Hemlock
Cedar	Lodgepole Pine
Cottonwood	W. White Pine
Cypress	Sitka Spruce
	Engelmann Spruce

Effective July 1, 1996, all spruce found within the Pemberton, Yale, and Nahatlatch supply blocks will be considered to be Engelmann Spruce for appraisal purposes. In order to calculate the stand selling price for spruce, average log market values for hemlock and balsam will be applied to all spruce cruise volumes for cutting authorities in these supply blocks.

Cutting authorities outside these supply blocks will use hemlock and balsam average log market values for spruce at the time of appraisal or reappraisal where Englemann Spruce is identified as the predominant spruce species in the cruise for the cutting authority or where the district manager verifies that Englemann Spruce is the predominant spruce species in the stand.

Log grade profiles for all types of spruce will be established in accordance with Section 3.2 of this manual.

3.3.1 Low Volume Cypress Exception

Where the cypress cruise volume is less than 2 000 m³, the J log grade average market value is used for cypress grades D, F, H, I, J, K, L and M.

6.6.2 Miscellaneous Stumpage Rates for Timber Licences

The stumpage rates in Table 6-2 apply only to timber licence cutting authority areas that are not appraised and have a cutting authority term that began before May 1, 1995.

For each species of timber in column 1 of Table 6-2, the stumpage rate immediately opposite that species in columns 2, 3 and 4 respectively, apply to sawlogs scaled in the indicated forest regions on and after April 1, 1996.

Table 6-2: Miscellaneous Stumpage Rates for Timber Licences

Column 1 Species of timber	Forest Region		
	Column 2 Vancouver except the Mid-Coast and Queen Charlotte forest districts (that part west of the Cascades Mountains) \$/cubic metre	Column 3 Prince Rupert and the Mid-Coast and Queen Charlotte forest districts (that part west of the Cascades Mountains) \$/cubic metre	Column 4 All forest regions and those parts of regions east of the Cascade Mountains \$/cubic metre
Fir	36.80	28.40	20.90
Spruce	40.70	32.90	20.00
Balsam	20.60	17.20	17.60
Cedar	18.30	14.70	22.00
Hemlock	19.90	16.00	19.40
Cypress	37.30	29.10	20.20
White pine	20.10	17.10	24.90
Yellow pine	20.10	17.10	21.30
Larch	20.10	17.10	20.90
Lodgepole pine	13.00	10.10	18.20
Other conifers	20.10	17.10	20.20
All non-conifers	1.00	1.00	0.50
All species Grades 3, 4, 5, and 6	N/A	N/A	0.25
All species Firmwood reject	Nil	Nil	Nil
All species Grade Y	0.25	0.25	N/A

