

File: 280-20/195-30/IAPP

December 14, 2001

To: Regional Managers - Interior

From: The Honourable Michael de Jong
Minister of Forests

Re: Amendment No. 5 to the *Interior Appraisal Manual*

I hereby approve Amendment No. 5 to the *Interior Appraisal Manual*, and attach a copy for your use.

Section 5.4, Market Value Indexing has been amended to include the new Statistics Canada price indices to be used in the Interior target rate calculation.

The interior target rate has been reduced to address the extra cost to harvest bark beetle infested timber.

This amendment will come into force effective this date. Further amendments or revision to this manual requires my approval.



Michael de Jong
Minister

Attachment

pc: Bill Howard, Director, Revenue Branch

All Subscribers, *Interior Appraisal Manual*





FOR FURTHER INFORMATION CONTACT:

John Cook
Sr. Timber Pricing Forester (Interior)
Revenue Branch
Ministry of Forests
PO Box 9511 Stn Prov Govt
Victoria, B.C. V8W 9C2
Phone: 356-7675
E-mail: John.Cook@gems2.gov.bc.ca
FAX: 387-5670

MANUAL TITLE

Interior Appraisal Manual

REVISION No.

5

ISSUE DATE

December 14, 2001

PUBLICATIONS 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 5	5 - 6	
INSERT	Chapter 5	5 - 6	
REMOVE	Index	1 - 4	
INSERT	Index	1 - 4	
INSERT	Minister's Letter/Revision Transmittal		Behind Amendments Tab
INSERT	January 1, 2001 Parameters		Behind Parameters Tab

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
5.4.1	Converting Indexes From 1997=100 Base to 1992=100 Base.....	5-5
5.4.2	Calculating the Composite Index	5-5
5.4.3	Calculating the Target Rate.....	5-5
5.5	Base Rate	5-7
5.6	Calculation of Stumpage Rate	5-8
5.6.1	Calculation of Indicated Stumpage Rate.....	5-8
5.6.2	Prescribed Minimum Stumpage Rate	5-8
5.6.3	Reserve Stumpage Rate	5-8
5.6.4	Upset Stumpage Rate	5-9
5.6.5	Total Stumpage Rate.....	5-9

6 Miscellaneous Timber Pricing Policies

6.1	Average Value Indexes by District and Species	6-2
6.2	Cutting Authorities With 5 000 m ³ or Less Volume.....	6-3
6.3	Right-of-way Cutting Authorities	6-4
6.4	Partially Harvested Timber	6-5
6.5	Small Business Forest Enterprise Program (SBFEP) Sales	6-6
6.6	Levies (CVP only).....	6-8
6.7	Miscellaneous Stumpage Rates.....	6-9
6.7.1	Special Forest Products and Other Miscellaneous Rates	6-9
6.7.2	Miscellaneous Stumpage Rates for Timber Licences	6-12

7 Market Pricing System

7.1	MPS Introduction.....	7-2
7.2	MPS Principles and Procedures	7-3
7.2.1	MPS Appraisals	7-3
7.2.2	MPS Stumpage Adjustments	7-3
7.2.3	Reappraisals for MPS Appraisals	7-3
7.2.4	Calculation Conventions.....	7-3
7.2.5	Methodology	7-4
7.3	MPS Selling Prices	7-5
7.3.1	MPS Lumber Average Market Values	7-5
7.3.2	Calculation of Species Lumber Selling Price	7-5
7.4	Market Stumpage Price Calculation	7-7
7.4.1	Market Stumpage Price Variables.....	7-7
7.4.2	Market Stumpage Price Equation	7-9
7.5	Calculation of MPS Stumpage Rate	7-10
7.5.1	Upset Stumpage Rate Calculation	7-10

7.5.2 Prescribed Minimum Stumpage Rate	7-10
7.5.3 Total MPS Stumpage Rate.....	7-10
7.6 Deciduous and Miscellaneous Forest Products.....	7-11

Appendices

Appendix I Equipment and Labour Rates.....	A-2
Appendix II Lumber Recovery Factors (board feet/cubic metre)	A-4
Appendix III Development Cost Allocation	A-5
Appendix IV Relative Soil Moisture to Absolute Soil Moisture Conversion Table	A-6

Index

5.4 Market Value Indexing

At the times specified in Section 1.7, target rates are adjusted upwards or downwards to reflect changes in the value of softwood lumber and wood chips as indicated by Statistics Canada.

Statistics Canada has replaced the 1992=100 based price series with new series that have a base of 1997=100. For the January 1, 2002, and all subsequent target rates, the 1997=100 price series must be converted to a 1992=100 base before beginning calculation of the composite index described in Section 5.4.2.

5.4.1 Converting Indexes From 1997=100 Base to 1992=100 Base

Interior softwood lumber is represented by Statistics Canada price index P4798 (1997=100) which replaces P2459 (1992=100). To convert P4798 to a 1992=100 base, for use in Section 5.4.2, multiply by a link factor of 1.752.

Wood chips are represented by Statistics Canada price index P4856 (1997=100) which replaces P2513 (1992=100). To convert P4856 to a 1992=100 base, for use in Section 5.4.2, multiply by a link factor of 1.138.

5.4.2 Calculating the Composite Index

The average lumber and chip indexes from the appropriate three month period (shown below) are combined, with lumber receiving a weight of 88.0 percent and chips 12.0 percent. The combined index is then multiplied by a normalization factor of 1.520. This factor equates the new lumber/chip composite index (1992=100) with the Statistics Canada lumber index (1981=100) at April 1, 1998. During the calculations described above, no rounding is done. The final composite index (INDEX) is rounded to one decimal place before being entered into the appropriate formula below.

5.4.3 Calculating the Target Rate

Interior Target Rate Calculation

1. If the INDEX is less than or equal to 161 then,

$$TR = \frac{INDEX}{139.0} * 8.59$$
2. If the INDEX is greater than 161, but less than or equal to 169.9 then,

$$TR = 9.95 + \left[\frac{(INDEX - 161)}{25} * 9.35 \right]$$

3. If the INDEX is greater than 169.9
then,

$$TR = 13.28 + \left[\frac{(INDEX - 169.9)}{49} * 6.74 \right]$$

Where: TR = Target Rate (\$/m³)

Quarterly Stumpage Rate Adjustment Date	INDEX based on Statistics Canada price indexes for the months of:
January 1 April 1 July 1 October 1	Preceding August, September, October Preceding November, December, January Preceding February, March, April Preceding May, June, July

For the quarterly stumpage adjustments on January 1, 2002, April 1, 2002, July 1, 2002 and October 1, 2002, the TR will be reduced by \$1.18/m³ to adjust for the salvage of bark beetle infested timber.

The applicable index is published by Revenue Branch at the time of each quarterly stumpage adjustment and becomes an integral part of this manual.

Index

A

Access Management, 4-9, 4-25
Adjustable Stumpage Rates, 6-6
Adjustments, 2-7
 CVP, 1-8
 MPS, 7-3
Administration and Other Costs, 4-48
Administrative Line, 1-3
Amendments, 2-6
AMVs for Licences which Require
Utilization of Small Logs, 3-2
Annual Reappraisal, 2-6
Applicable Licences, 4-2
Appraisal, 2-3
Appraisal and Reappraisal
 stumpage advisory notice, 2-4
 written objection, 2-4
Appraisal LRF, 3-11
Appraisals
 New MPS, 7-3
 New MPS Reappraisals, 7-3
Area, 4-5
Average Cost Estimates, 4-7
Average Stumpage Rate, 1-7

B

Barge/Ferry, 4-42
Barge/Ferry Not Used for Truck Haul, 4-42
Basic Silviculture, 4-52
Basic Silviculture Levy, 6-8
Benefits, 4-2, 4-55
Biogeoclimatic Zone, 4-29
Blasting, 4-14
Block Roads, 4-13

Bonus Bid, 1-7, 5-9
Boom, 4-41
Borrow Pit, 4-21
Boulders, 4-14
Breakage, 4-5
Bridge Removal, 4-25
Bridges, 4-25
Brushing, 4-53

C

Calculating the Composite Index, 5-5
Calculating the Target Rate, 5-5
Calculation of MPS Stumpage Rate, 7-10
Calculation of Total Species End Product
Selling Price, 3-10
Camp, 4-41
Canadian Lumber Standard/American
Lumber Standard, 3-2
Cascade Mountains, 1-3
Cattle Guards, 4-22
Charges as a Share of Road Maintenance,
4-47
Charges Other Than for Road Maintenance,
4-47
Chip Value, 3-11
Chip Yield, 3-11
Chip Yield Derivation, 3-8
Chip Yield Factors, 3-9
Chips, 4-55
Clear Cut, 4-33
Clearing, 4-13
Combined Product Recovery Factors, 3-7
Continuous Road Access, 4-49
Converting Indexes From 1997=100 Base to
1992=100 Base, 5-5
Corduroy, 4-25
Cost Trend, 4-58
Cost Trend Factors, 4-58
Crib Back Fills, 4-20
Cruise Compilation, 4-4
Cruise Data, 4-4
Cruising Manual, 4-4
Culverts, 4-13, 4-18
Cut/Fill Slope Stabilization, 4-25
Cutting Authority, 1-4

Cutting Authority Document, 4-3
Cycle Time, 4-38

D

Dead/Live Useless Snags, 4-36
Debris Disposal, 4-13
Decay, 4-5
Deciduous, 4-54
Decked Timber, 6-5
Deep Fill, 4-25
Depreciation, 4-2, 4-55
Detailed Engineering Cost Estimates, 4-6, 4-7
Determination of Stud Log Percent, 3-9
Development Costs, 4-6
Development Costs on Private Land, 4-11
Development Levy, 6-8
Dewater, 4-41, 4-55
Dewater and Reload, 4-41
Distance to Support Centre, 4-30
District Average Value Index, 2-11
Ditch Construction, 4-13
Drain Structure Cost Estimates, 4-7
Drainage Structures, 4-18
Drilling, 4-14
Dump, 4-41

E

Effective Date, 4-58
End Haul Construction, 4-24
Existing Roads and Structures, 4-11
Extended Road Amortization, 4-12

F

Fences, 4-22
Fire Damage, 4-36
Fixed Stumpage Rates, 6-6
Forest Act, 1-2
Forest Development Plan, 4-3
Forest District Specific, 6-11
Forest Service *Cruising Manual*, 4-36
Forest Service Roads, 4-47
Free-Growing Stocking Standards, 4-52
Fuel, 4-2, 4-55

Full Appraisal, 2-2

G

Geo-tech Fabric, 4-25
Gravel, 4-20
Gross Volume, 4-31
Ground Skidding, 4-28, 4-33
Grubbing, 4-13
Gullies, 4-24

H

Haul Method, 4-39
Heli Yarding Distance, 4-32
Helicopter, 4-28
Helicopter Logging, 4-33
Highway Haul, 4-40
Highway Hauling, 4-39
Horse, 4-28
Horse Logging, 4-33

I

Indicated Stumpage Rate, 1-7, 5-8
Installation, 4-20
Insurance, 4-2, 4-55
Interior Appraisal Data Submission, 2-3, 4-4
Interior Base Rate, 1-7, 5-8
Interior Mean Value Index, 5-8
Interior Target Rate, 1-7, 5-5
Interior, Area of Application, 1-3
Isolated Cutting Authorities, 4-31
Isolated Cutting Authority Areas, 4-49

L

Landings, 4-13
Least Total Harvesting Cost Estimate, 4-2
Log Bridges, 4-20
Low Volume Additive, 4-49
LRF Update Add-ons, 3-7
Lumber, 4-55
Lumber Market Values, 1-7
Lumber Recovery Factors, 3-6

M

Main Service Road, 4-6
Maintenance, 4-2, 4-55
Major Culvert Removal, 4-25
Mandatory Grade 4 Hemlock AMVs, 3-3
Manufacturing Cost Differential, 3-10
Manufacturing Costs, 1-2
Market Pricing System, 7-2
Material Costs, 4-13
Mathematical Error, 2-7
Mean Value Index, 1-7
Minimum Stumpage Rate, 1-7
Minister's Direction, 2-9
Miscellaneous Stumpage Rates, 1-7, 2-11, 6-9
Moving Assistance, 4-2
MPS Upset Stumpage Rate, 7-10

N

New Construction, 4-7
New Construction and Upgrading, 4-24
Non-Commercial Brush (NCBR), 4-54

O

Off-Highway Haul, 4-40
Off-Highway Hauling, 4-39
Operating Cost, 1-7, 5-3
Operational Roads, 4-13
Order, 2-2
Other Land Use Charges, 4-47
Other Roads, 4-47
Overhead, 4-2
Overhead Cable Logging, 4-28, 4-34
Overland Construction, 4-24
Overtime, 4-2, 4-55

P

Partial Cut Variables, 4-29
Partial Cutting, 4-29
Percent (%) Stud AMV, 3-9
Percent Blowdown, 4-29
Percent Rock, 4-14

Percentage of the Indicated Stumpage Rate, 1-7, 5-9
Permitted Roads, 4-47
Pipe Line Rights-of-Way, 6-11
Pipeline Crossings, 4-22
Point of Appraisal, 4-38
Prescribed Minimum Stumpage Rate, 7-10
Primary Haul, 4-39
Professional Forester, 2-3
Profit and Risk Margins, 4-2
Pull Back Unstable Sidecast, 4-25
Pushover Logging, 4-3

R

Railway, 4-41
Railway Transportation, 4-42
Random Lumber, 3-2
Random Lumber AMVs, 3-3
Reappraisal, 2-2, 2-3, 2-5
Reconstruction, 4-25
Reconstruction and Replacement, 4-8
Regional Manager, 2-2
Regional Manager's Rates, 2-11
Regional Revenue Staff, 2-2
Reload, 4-41
Repair, 4-2, 4-55
Request for Approval for a Road Use Charge, 4-47
Reserve Stumpage Rate, 1-7
Retaining Walls, 4-25
Right-of-way Felling, 4-13
Rip Rap, 4-20
Road Type, 4-13
Road Use Charges, 4-47
Roads, 4-6
Rock, 4-14
Rock Drilling, 4-21
Root Disease Control, 4-3
Routine Road Maintenance Cost Estimate, 4-43

S

SBFEP, 6-6
Secondary Haul, 4-41

Section 20 Timber Sale Licences, 6-6
Section 21 Timber Sale Licences, 6-6
Section Length, 4-13
Sector Times, 4-39
Selling Price, 1-7, 5-3
Shipping Differential, 3-10
Side Slopes, 4-24
Silviculture Prescription, 4-3, 4-54
Site Preparation, 4-20
Skidder Swinging, 4-3
Skyline, 4-35
Skyline Yarding Distance, 4-32
Slope, 4-29
Slough Removal, 4-26
Small Business Forest Enterprise Program, 2-10
Small Log, 3-2
Small Log AMVs, 3-2
Small Scale Salvage Initiative, 6-3
Small Tree Dummy Variable, 4-32
Small Tree Volume, 4-31
Snow Road Reconstruction, 4-23
Snow Roads, 4-13, 4-16
Soil Moisture Regime (SMR), 4-15
Special Structures, 4-25
Stabilizing Material, 4-20
Stripping, 4-13
Stud, 3-2
Stud Lumber, 3-3
Stump Removal, 4-3, 4-13
Stumpage Rate Calculations, 2-14
Subgrade Construction, 4-13
Subgrade Cost Estimate, 4-15
Submission Control Sheet, 2-3
Sudden and Severe Damage, 2-5
Supplies, 4-2, 4-55
Supply and Delivery, 4-20

T

Tabular Cost Estimates, 4-6
Tally Sheets, 4-4
Timber Licence, 2-11
Total Coniferous Volume of 2 000 m³ to 5000 m³, 6-3

Total Coniferous Volume of Less than 2000 m³, 6-3
Total Merchantable, 4-5
Total MPS Stumpage Rate, 7-10
Total Stumpage Rate, 1-7
Tow, 4-41
Treatment Regimes, 4-52
Tributary Cutting Authorities, 4-6
Truck Hauling, 4-21
Truck to Rail Transfer, 4-41
Turnout Construction, 4-13

U

Unloading, 4-55
Uphill Side Slope, 4-14
Upset Stumpage Rate, 1-7, 5-9
Upset Stumpage Rate Calculation, 7-10

V

Value Index, 1-7, 5-2, 5-8
Volume per Hectare, 4-5
Volume Per Hectare, 4-29
Volume per Tree, 4-31
Volume Removal Factor, 4-54

W

Wages, 4-2, 4-55
Waste, 4-5
Weeding, 4-53
Woodlots, 2-10