



MEMORANDUM

File: 195-30/CAPP

August 24, 1999

To: Regional Managers

From: The Honourable David Zirnelt
Minister of Forests

Re: Amendment to the *Coast Appraisal Manual*

I hereby approve Amendment No. 3 to the *Coast Appraisal Manual*, and attach a copy for your use. The following sections are amended:

- | | |
|-----------------|---|
| Section 4.3.1.2 | Expanded the clause where Forest Service road bridge replacements are to be excluded from appraisals when funded by Forest Renewal BC to include funding from any Crown source. Also to exclude from appraisals any major reconstruction and upgrading of Forest Service roads where funded by the Crown. |
| Section 7.3.0 | Corrects the description of the geographic area from which log selling prices are gathered. |
| Section 7.3.2 | Clarifies the calculation of stand selling price for Market Pricing System calculations to exclude alder, birch, maple and cottonwood. |

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



David Zirnelt
Minister

Attachments

pc: Bill Howard, Director, Revenue Branch

All Subscribers, *Coast Appraisal Manual*



FOR FURTHER INFORMATION CONTACT:

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MANUAL TITLE

Coast Appraisal Manual

REVISION No.
Amendment No. 3

ISSUE DATE
September 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	Chapter 4	7 - 8	
INSERT	Chapter 4	7 - 8	
REMOVE	Chapter 7	5 - 6	
INSERT	Chapter 7	5 - 6	
INSERT	Minister's Letter and Manual Transmittal		After Amendments Tab

The total of the estimated costs for each project is divided by the total net cruise volume to give a unit cost ($\$/\text{m}^3$) for engineered roads. For new construction costs that occur during the term of the cutting authority, those costs are applied against the remaining cutting authority volume at reappraisal.

b. Bridge Cost Estimates

Each bridge cost estimate is determined either from the appropriate table (Section 4.3.2.2) or as a detailed engineering cost estimate (Section 4.3.3).

Where bridge materials are reused by the original purchaser at a second or subsequent location, the cost estimate will include dismantling, transport and installation at the new site. The initial materials cost and delivery costs are excluded.

Where used bridge materials are purchased from a legally non-associated party, the cost of purchase and shipping those materials will be included in the cost estimate. The requirements of Section 4.1 still apply.

The total of the estimated costs for all bridges is divided by the total net cruise volume to give a unit cost ($\$/\text{m}^3$) for bridges.

The unit costs ($\$/\text{m}^3$) for tabular roads, engineered roads, and bridges are totalled to give a unit cost ($\$/\text{m}^3$) for new construction. For new construction costs that occur during the term of the cutting authority, these costs are applied against the remaining cutting authority volume at reappraisal.

2. Reconstruction and Replacement

Reconstruction and Replacement are defined as replacement or repair of a major drainage structure, or major reconstruction or resurfacing of a section of road, required because:

- of extensive "wear and tear",
- the road has been permanently or semi-permanently deactivated previously,
- the road has been abandoned, or
- of a water or slope failure "event".

A water or slope failure "event" is the result of an irregular natural occurrence which leads to the blockage or destruction of a road or bridge making the road or bridge impassable for vehicular traffic. The repairs required should be grouped, if linked by event, into one project cost estimate (see Appendix II) via a detailed engineering cost form.

The costs approved under Section 4.3.1, (2.) must not qualify under routine maintenance as described in Section 4.5.3 or be eligible for reporting under the routine maintenance portion of the coastal logging cost survey.

Bridges replaced on Forest Service Roads that are included in the Forest Renewal B.C. five year "Bridge Replacement Program on Forest Service Roads", or are otherwise funded by the Crown, will not be included in any appraisal.

The cost estimate may be allocated, by the licensee, to any individual proposed or existing tributary cutting authority that is in the licensee's approved forest development plan at the time of the project. The licensee must identify this cutting authority when submitting the detailed engineering cost estimate.

Reconstruction and replacement cost estimates will be determined on an individual project basis as detailed engineering cost estimates (see Sections 4.3 and 4.3.3) and must be approved by the District Manager.

These projects may include:

- bridge structural maintenance including redecking (ties and decking) or replacement of a major drainage structure,
- reconstruction of a road,
- resurfacing of a road, with a minimum loose depth of 0.1 m over a continuous length of 0.5 km or greater, or
- replacing pipe culverts larger than 0.9 m in diameter.

Where bridge materials are reused by the original purchaser at a second or subsequent location and they qualify as engineered estimates, the cost estimate will include dismantling, transport and installation at the new site. The initial materials cost and delivery costs are excluded.

Where used bridge materials are purchased from a legally non-associated party, the cost of purchase and shipping those materials will be included in the cost estimate. The requirements of Section 4.1 still apply.

To determine the unit cost (\$/m³) for reconstruction and replacement, the total approved costs are divided by the total net cruise volume. For reconstruction and replacement projects that occur during the term of the cutting authority, those costs may be applied against the estimated remaining volume at the effective reappraisal.

7.3 Log Selling Prices

Invoiced (f.o.b.) log market values are compiled from prime, domestic, arms-length sales reported to occur in areas adjacent to the Strait of Georgia; the Strait of Juan de Fuca and 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. The cut off date for the collected log market value input is approximately forty-five (45) days prior to the stumpage rate adjustment date.

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. Note that for the calculation of stand selling price under MPS the volumes and prices of Alder, Birch, Maple, and Cottonwood are omitted from the calculation.

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.

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