BRITISH COLUMBIA

Ministry of Forests

Office of the Minister

MEMORANDUM

File: 280-20

MAY 3 1 2005

BY EMAIL

To: Cindy Stern
Regional Manager
Coast Forest Region

From: The Honourable Michael de Jong
Minister of Forests

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

I hereby approve Amendment No. 6 to the *Coast Appraisal Manual*, and attach a copy for your use. The following sections have been amended.

Section 1.1:	Reinstitutes March 1, 2005, revisions.
Section 2.3(1)(b):	Web site for *Cruise Compilation Manual*.
Section 3.3.1(4):	Reference to cutting authority area added.
Section 3.3.2:	Reference to cutting authority area added.
Section 3.3.3:	Reference to cutting authority area added.
Section 3.5(4):	Clarification of non-adjusting stumpage rate selection for woodlots.
Section 4.2:	Number of bidders defined.
Section 4.2.2:	Section reference added.
Section 4.2.2.1:	Section reference added.
Section 4.2.2.4:	Section reference added.
Section 4.2.4:	Word added for clarity.
Section 4.2.5.1:	Paragraph 1 deleted.
Section 4.2.5.2:	Purpose of towing points of origin clarified.
Section 4.2.5.3:	"Bargedist" added.
Section 5.2.1:	Revision to low volume cost eligibility.
Section 5.8:	New market logger road cost values.
Section 7.2(2):	Allows stumpage rate to be determined for each species.
Section 7.6.2:	Clarification on application of Table 7-2.
Table 7-1:	Updated products and codes.
Table 7-2:	Updated products and codes.

VANCOUVER 2010

This amendment will come into force on June 1, 2005. Further amendments or revisions to this manual require my approval.

Michael de Jong
Minister of Forests

Attachment

pc: Bill Howard, Director, Revenue Branch

Coast Appraisal Advisory Committee

BRITISH COLUMBIA Ministry of Forests

MANUAL REVISION TRANSMITTAL

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.	**ISSUE DATE**
Amendment No. 6	June 1, 2005

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
REMOVE	Table of Contents	i - iv	After Table of Contents Tab
INSERT	Table of Contents	i - iv	
REMOVE	Chapter 1	1 - 4	After Chapter 1 Tab
INSERT	Chapter 1	1 - 4	
REMOVE	Chapter 2	5 - 6	After Chapter 2 Tab
INSERT	Chapter 2	5 - 6	
REMOVE	Chapter 3	5 - 10	After Chapter 3 Tab
INSERT	Chapter 3	5 - 10	
REMOVE	Chapter 4	3 - 6 11 - 16	After Chapter 4 Tab
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REMOVE	Chapter 5	3 - 4 27 - 28	After Chapter 5 Tab
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Definitions and Interpretations 1

1.1 Definitions and Interpretations

In this manual:

"Act" means *Forest Act*;

"Appraisal Data Submission" means the information required by the person who determines the stumpage rate to determine that rate including the appraisal map, appraisal summary report, cruise compilation and any other information required by the regional manager or district manager in the form required by the director, signed by a registered professional forester (RPF) or registered forest technologist (RFT), registered with the Association of British Columbia Forest Professionals;

"Appraisal Log Dump" means the log dump that is the closest log dump to a part of a cutting authority area;

"Billing history record" means the log scale data reported on stumpage invoices issued by Revenue Branch. The billing history record is kept by the ministry. The billing history record of a particular geographic area or licence is a record of log scale data reported on stumpage invoices issued by the Revenue Branch for timber scaled under section 94 of the *Act*;

"BCTS" means British Columbia Timber Sales;

"Coniferous cruise volume" means that part of the total net cruise volume which is coniferous timber;

"Detailed engineering" means non-tabular;

"Cutting authority" means a cutting permit issued under a forest licence, a timber sale licence, a timber licence, tree farm licence, a community forest agreement, a community salvage licence, a woodlot licence, or forestry licence to cut; a timber sale licence; a licence to cut; or a road permit;

"Cutting authority area" means the area where timber may be harvested under a cutting authority which has a unique timber mark or marks;

"Deciduous timber" means timber that is any of the alder, birch, cottonwood and maple species;

"Director" means director of Revenue Branch of the Ministry of Forests;

"District manager" means district manager or district manager's designate;

"Licensee" means the holder of a cutting authority;

"Manual" means *Coast Appraisal Manual*;

"Mature coniferous timber" means coniferous timber that is 141 years old or older;

"Minister" means Minister of Forests;

"Ministry" means Ministry of Forests;

"**Net cruise volume**" means the gross volume of all species listed in section 4.2.3(1), plus alder, birch, cottonwood and maple in the cutting authority area minus the volume of decay, waste and breakage in that timber unless otherwise specified in the *Cruising Manual*;

"Regional manager" means regional manager or regional manager's designate;

"Regulations" means regulations under the *Act*;

"Remaining volume" means the total net cruise volume of a cutting authority area minus the total volume of timber in the billing history record of the cutting authority area on the effective date of the reappraisal of the cutting authority area;

"Revenue Branch" means revenue branch of the ministry;

"Second growth coniferous timber" means coniferous timber that is less than 141 years old;

"Selling price zone 51" means the table of coast market pricing system log values for mature logs, approved by the director, Revenue Branch;

"Selling price zone 52" means the table of coast market pricing system log values for second growth logs, approved by the director, Revenue Branch;

"Stumpage price" means the market stumpage price;

"Stumpage rate" means market stumpage rate;

"Skyline" means any method of yarding where the logs are fully suspended above the ground by a short span, long span, or multi-span system using a carriage with standing or running lines;

"Total net cruise volume" of a cutting authority area (tnvc) is the product of the net cruise volume per hectare of the cutting authority area (ncv/ha) multiplied by the total merchantable timbered area to be harvested under the cutting authority (tmta). Expressed as an equation: $\text{tncv} = \frac{\text{ncv}}{\text{ha}} \text{ x tmta}$;

"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;

"Unit cost" means cost estimate expressed in dollars per cubic metre.

2.3 Cruise Information

1. A licensee or BCTS must gather and compile cruise data in accordance with the following ministry publications and the coast timber merchantability specifications in Table 2-1:

   a. *Cruising Manual*, (*Cruising Manual* web site: http://www.for.gov.bc.ca/hva/manuals/cruising/),

   b. *Cruise Compilation Manual*. http://www.for.gov.bc.ca/hva/manuals/cruisecompilation/Index.htm

Table 2-1 Coast Timber Merchantability Specifications

Description

The following coast timber merchantability specifications must be used in all appraisals.

	Mature	Immature
1. Maximum stump height (measured from the top of the stump down to the highest ground level adjacent to the stump)	30.0 cm	30.0 cm
2. Minimum slab thickness for cedar only	15.0 cm	10.0 cm
3. Minimum top diameter (inside of the bark)	15.0 cm	10.0 cm
4. Minimum length of a log or slab	3.0 m	3.0 m

In this table "mature" means timber which has an average age of 121 years or older and "immature" means timber which has an average age of less than 121 years.

2. The licensee must provide, when requested by the district manager a photocopy of the tally sheets and an electronic version of the compilation in a format specified by the regional manager.

3. a. The cutting authority area will be appraised using the total net cruise volume of timber authorized for harvest in that area.

   b. The total area of merchantable timber in the cutting authority area is obtained from the appraisal summary of the cruise compilation report.

4. If the licensee or BCTS modifies its application for a cutting authority the applicant must recompile the cruise data when any of compiled plots used in the cruise lie outside the boundaries of the proposed cutting authority area.

5. a. Where a boundary of a cutting authority area has been changed after the appraisal or reappraisal of the cutting authority area, every reappraisal of the cutting authority area must use the total net cruise volume of the cutting authority area as it is after the boundary has changed.

b. If, after a cruise compilation or recompilation was used for an appraisal or reappraisal, the total of all additions or deletions of areas containing merchantable timber made to the cutting authority area exceeds twenty-five hectares or twenty-five percent of the area containing merchantable timber, whichever is less, the entire cruise must be recompiled.

(ii) twenty-five percent of the area of the cutting authority area as it was prior to the addition or deletion of the land, or

d. at least twenty-five percent of the total net cruise volume that was used in the most recent appraisal or reappraisal of the cutting authority area has been suddenly and severely damaged, unless the timber was damaged by a fire for which the licensee was responsible and the licensee failed to comply with any of sections 75 through 95 of the *Forest Practices Code of British Columbia Act* or the *Forest Fire Prevention and Suppression Regulation.*

2. The licensee must notify the district manager immediately of a changed circumstance.

3. Where the district manager believes that a changed circumstance has occurred, the district manager will notify the licensee of that belief.

4. A cutting authority area other than a cutting authority area that is the subject of a road permit or a cutting authority with fixed rates, must be reappraised when a changed circumstance has occurred.

5. Where a cutting authority area is reappraised because of a changed circumstance, any bonus bid in existence prior to the reappraisal does not change and remains in effect.

3.3.1.1 Changed Circumstance Reappraisal Procedure

1. Where the cutting authority area must be reappraised because of a changed circumstance, the licensee shall submit to the district manager an appraisal data submission.

2. Thereafter, the reappraisal procedure shall be the procedure required by section 3.2(2) through 3.2(8).

3.3.1.2 Effective Date of Changed Circumstance Reappraisal

1. Except as provided in subsections (2) and (3) of this section, the effective date of the reappraisal under section 3.3.1 is the first day of the month following the date of the licensee's notification to the district manager or the district manager's notification to the licensee that a changed circumstance has occurred.

2. Where the changed circumstance is because of amendments to the cutting authority area referred to in subsection 3.3.1 (1)(c), the reappraisal is effective on the first day of the month following the date that the district manager approves the last amendment.

3. Where the changed circumstance is because of sudden and severe damage to the appraised timber referred to in subsection 3.3.1(1)(d), the effective date of the reappraisal is the first day of the month following the date of the occurrence of the damage.

3.3.2 Annual Reappraisal of a Road Permit

1. Subject to section 7.3, a cutting authority area that is the subject of a road permit must be reappraised effective November 1, 2004 and annually on February 1st of every year thereafter.

2. The stumpage rate determined under subsection (1) of this section will be a fixed stumpage rate until the cutting authority area is reappraised.

3.3.3 Annual Reappraisal of a Salvage Cutting Authority

1. Subject to section 7.5, a cutting authority area that is the subject of a salvage cutting authority must be reappraised effective March 1, 2006 and annually on March 1st of every year thereafter.

2. The stumpage rate determined under subsection 1 of this section will be a fixed stumpage rate until the cutting authority area is reappraised.

3.3.4 Minister's Direction

1. The Minister may direct that a reappraisal be made at any time and that the redetermined stumpage rate will be effective on any future date.

2. The Minister may specify criteria and procedures for an appraisal or reappraisal.

3.3.4.1 Minister's Direction Reappraisal Procedure

1. Where the Minister directs a reappraisal to be made under section 3.3.4, and the district manager requests the licensee to submit an appraisal data submission, the submission shall be submitted to the district manager within forty-five days of the district manager's request.

2. Thereafter the reappraisal procedure shall be the procedure required by section 3.2 (2) through 3.2 (8).

3.4 Quarterly Adjustments

1. Unless a cutting authority, previous manual, or a provision of this manual specifies that the stumpage rates of a cutting authority are fixed, the stumpage rate of a cutting authority is adjusted quarterly on January 1, April 1, July 1, and October 1 of each year.

2. a. At the time of the quarterly adjustment referred to in subsection (1) of this section, the stumpage rate will be recalculated in accordance with the equations applicable for the appraisal effective date and the appraisal data submission which was used in the most recent appraisal or reappraisal. The log selling prices and CPI effective for the month of the adjustment will be used in the calculation of the adjustment. All other data, including the estimated number of bidders, will remain unchanged.

   b. The procedure referred to in this subsection is conducted each quarter until the cutting authority area is reappraised or the cutting authority expires.

3.5 Fixed Rates and Extensions of Term

Timber Sale Licences

1. A fixed stumpage rate for a timber sale licence means that the upset stumpage rate and bonus bid will not change during the term of the timber sale licence and all extensions, except where:

   a. a reappraisal is done under section 3.3.1(d) due to sudden and severe damage, or

   b. a reappraisal is done under section 3.3.4 due to the Minister's direction.

2. Every timber sale licence entered into under section 20 of the *Act* that was advertised on or after November 1, 2003 must have a fixed stumpage rate.

3. Notwithstanding anything to the contrary in this manual, a fixed stumpage rate for a timber sale licence may not be corrected where there has been an error in the appraisal.

Woodlots

4. a. The stumpage rate for a cutting authority issued under a woodlot licence shall be an adjusting stumpage rate unless:

      i) the stumpage rate for the cutting authority is changed to a non-adjusting stumpage rate under this section, or

      ii) the cutting authority is a road permit.

   b. A licensee may choose to have an adjusting stumpage rate changed to a non-adjusting stumpage rate under this subsection by giving written notice of that choice to the regional appraisal coordinator.

   c. Where the licensee gives notice to the regional appraisal coordinator of that choice, the adjusting stumpage rate shall become a non-adjusting stumpage rate three weeks after the regional appraisal coordinator receives the notice.

   d. On the date that the stumpage rate becomes a non-adjusting stumpage rate, the stumpage rate for the cutting authority continues to be the stumpage rate of the cutting authority that was in effect on that date.

e. Where a stumpage rate is changed from an adjusting stumpage rate to a non-adjusting stumpage rate, the stumpage rate for the cutting authority shall not change for the term of the cutting authority and all extensions from the date that the stumpage rate is changed to a non-adjusting stumpage rate, except where the cutting authority area is reappraised under section 3.3.1(d) or under section 3.3.3.

Average Stumpage Rates by District and Species

5. Where the stumpage rate for a cutting authority has been determined under section 7.1 or section 7.2 and the term of the cutting authority is extended, the stumpage rate shall not change during the term of the cutting authority and all extensions.

Miscellaneous Stumpage Rates

6. Except where miscellaneous stumpage rates are otherwise specified in a cutting authority the miscellaneous stumpage rates applicable to timber under section 7.6 are the rates that are in effect on the date that the timber is scaled.

3.6 Correctable Errors

1. In this section, a correctable error means:

    a. an error made by a Ministry employee in selecting or transcribing the correct log grade source, or

    b. a stumpage adjustment calculation that has not been made by using a stumpage appraisal parameter in effect on the effective date of the stumpage adjustment.

2. Where a person believes that a correctable error has been made in a stumpage determination, that person shall give written notice of the correctable error as follows:

    a. in the case of an appraisal or a reappraisal, the notice shall be given to the regional manager, and in the case of a quarterly adjustment, the notice shall be given to the director, and

    b. the notice shall identify the stumpage determination, the correctable error, and the cause of the correctable error to the extent reasonably possible.

3. The regional manager or the director, upon receipt of the notice shall determine whether or not a correctable error was made.

4. Where the regional manager or the director determines that a correctable error has not been made, the person who determined the stumpage rate or director shall notify the person who gave the notice of the correctable error.

5. Where the regional manager or the director determines that a correctable error has been made, then:

    a. the regional manager or the director will notify the person who gave the notice of the correctable error,

    b. the regional manager or the director will take reasonable steps to ensure that all licensees who may have been affected by a similar correctable error are informed of the decision, and

    c. (i) where the regional manager determines that a correctable error has been made in an appraisal or a reappraisal the cutting authority area shall be reappraised to correct the error by the person who determined the stumpage rate, using the procedure under subsections 3.2(7) to 3.2 (8), and,

    (ii) the effective date of the reappraisal shall be the first day of the month following the date on which the notice of the correctable error was received by the regional manager.

4.2 Market Pricing System (MPS) Variables

STUMPAGE PRICE	The stumpage price for the cutting authority expressed in $/m^3$.
ALP	Average coniferous log selling price estimate expressed in $/m^3$. This is based upon a consideration of log grades and species for the cutting authority area, and schedules of log market values collected and published by the Revenue Branch.
DFIR 2G	If selling price zone in the appraisal data submission is 52, then DFIR 2G is the fraction of the coniferous cruise volume that is Douglas-fir. If the selling price zone is not 52, then DFIR 2G = 0.
HEMBAL 2G	The fraction of the coniferous cruise volume that is hemlock and balsam, if selling price zone is 52. If selling price zone is not 52, then HEMBAL 2G = 0.
HEMBAL OG	The fraction of the coniferous cruise volume that is hemlock and balsam, if the selling price zone is not zone 52. If the selling price zone is 52, then HEMBAL 0G = 0.
SLOPE	The average side slope percentage for that part of the cutting authority area that will not be helicopter yarded.
VPH	The volume of coniferous timber per hectare expressed in m^3/ha. This is calculated by dividing the total net coniferous cruise volume (m^3) by the total merchantable area (ha).
HELI	The fraction of the total net cruise volume, including deciduous volume of timber in a cutting authority area that must be helicopter yarded or yarded by skyline where logs are fully suspended more than 600 m in a straight line to the centre of the closest possible landing. This is calculated by dividing the total volume of timber that must be helicopter yarded or skyline yarded over 600 m by the total net cruise volume of the cutting authority area.
HAUL	The truck haul distance expressed in km. This is calculated using the procedures prescribed in section 4.2.4.
PENB	The preliminary estimated number of bidders that would compete for the cutting authority.
VOL	That part of the total net cruise volume in the cutting authority area that is coniferous timber expressed in m^3 except that where the cutting authority is a timber licence or is issued under a licence with an AAC greater than 10 000 m^3, then VOL = 18 874.
CPIF	The BC Consumer Price Index (P110000) approved by the director for use on the effective date of the appraisal, reappraisal or

quarterly adjustment, divided by the base CPI of 109.3.

CABLE — The fraction of the total net cruise volume of timber in a cutting authority area where terrain conditions require timber to be cable yarded. Cable yarding is an overhead cable system including highlead (spar), mobile (grapple or dropline) and skyline less than 600 m in a straight line horizontal yarding distance. Timber from within road right-of-ways that traverse cutting authority areas will have its volume assigned to the harvest method used to determine the stumpage rate in the same area on which the road lies.

CRUISE — Where the source of the log grades of fifty percent or more of the total net cruise volume has been determined from the cruise compilation, then CRUISE = 1. In all other cases the CRUISE = 0.

LOCATION (Major Centre) — The net cruise volume weighted average straight line distance measured in kilometres between the geographic centre of each part of a cutting authority area and the latitude and longitude co-ordinate listed in table 4-1 that is closest to that part of the cutting authority area.

BARGEDIST — BARGEDIST is the barging distance expressed in kilometres determined under section 4.2.5.3.

NB — The estimated number of bidders that would compete for the cutting authority determined under section 4.3.2.

Table 4-1: Latitude and Longitude Co-ordinates

Degrees and Minutes:		
Latitude	**Longitude**	**At or Near**
50°01'	125°15'	Campbell River
49°11'	121°55'	Chilliwack
54°23'	126°39'	Houston
50°07'	120°46'	Merritt
49°10'	123°57'	Nanaimo
54°18'	130°19'	Prince Rupert
54°31'	128°36'	Terrace
49°16'	123°06'	Vancouver
48°25'	123°21'	Victoria

4.2.1 Log Selling Prices

1. The Revenue Branch shall:

    a. Compile invoiced free on board log market values using prime, domestic, arm's-length sales reported to the Revenue Branch prior to sixty days before the stumpage rate adjustment date that have occured in areas adjacent to:

        i. the Strait of Georgia;

        ii. the Strait of Juan de Fuca;

        iii. Alberni Inlet east of a line drawn south from Amphitrite Points;

        iv. Johnstone Strait;

        v. the Queen Charlotte Strait south of a line drawn west from Cape Caution; and

        vi. Fraser River west of the bridge at the confluence of the Pitt River.

    b. Subject to subsection 2 of this section compile schedules of average log market values by species and log grade using sales data for each one-month reporting period. The data shall be summarized into a three-month schedule of average log market values by species and log grade for mature timber stumpage rate determinations. A three-month schedule of average log market values by species and log grade for second growth stumpage determinations shall also be produced. These schedules can be found at http://www.for.gov.bc.ca/hva/timberp/parameters.htm.

2. The volumes and prices of alder, birch, cottonwood and maple shall not be included in the schedules of average log market values.

3. The director shall approve schedules of average log market values for use in stumpage appraisals, reappraisals and quarterly adjustments.

4.2.1.1 Coniferous Timber

1. The volume of mature coniferous timber and the volume of second growth coniferous timber in a cutting authority area will each be compiled from the timber cruise of the cutting authority area on a tree by tree basis.

2. Where the volume of second growth coniferous timber in a cutting authority area is at least eighty percent of the volume of all of the coniferous timber in that cutting authority area, the cutting authority area will be appraised and reappraised as if all of the coniferous timber in that cutting authority area were second growth coniferous timber.

4.2.2 Log Grade Percentages

Log grade percentages are obtained for each species of timber in each cutting authority area being appraised or reappraised as described in section 4.2.2.1, 4.2.2.2, 4.2.2.3, 4.2.2.3.1, 4.2.2.3.2 and 4.2.2.4.

4.2.2.1 Billing History Record

Except as provided in section 4.2.2.2, 4.2.2.3, 4.2.2.3.1, 4.2.2.3.2 and 4.2.2.4, the part of the billing history record that will be used when the person who determines the stumpage rate does an appraisal or reappraisal of a cutting authority area will be the two year billing history record as determined in Table 4-2 and Table 4-3. The date of issue on the stumpage invoice determines whether or not the log scale data is included in the two year billing history record.

Where the effective date of the appraisal or reappraisal falls within the period of the year listed in Column 1 of Table 4-2, the two year billing history record for the licence or timber supply area shall end on the corresponding date in Column 2 of Table 4-2 which immediately precedes the effective date of the appraisal or reappraisal.

Table 4-2: Billing History Record for Licence or Timber Supply Area

Column 1 Date of Appraisal or Reappraisal	Column 2 Billing History Record Ends on the Preceding
January 1 to March 31	November 30
April 1 to June 30	February 28/29
July 1 to September 30	May 31
October 1 to December 31	August 31

Where the effective date of the appraisal or reappraisal falls within the period of the year listed in Column 1 of Table 4-3, the two year billing history record for the cutting authority shall end on the corresponding date in Column 2 of Table 4-3 which immediately precedes the effective date of the appraisal or reappraisal.

1. a. Where the cutting authority area is comprised of at least eighty percent second growth coniferous timber, the log grade percentages for that cutting authority area will be determined in accordance with the requirements of subsection 4.2.2.2(8).

   b. Where the cutting authority area is not comprised of at least eighty percent second growth coniferous timber the person determining the stumpage rate will proceed to subsection 2 of this section.

2. a. Where the cutting authority area is entirely within the geographic boundaries of a timber licence or licences, the person determining the stumpage rate will proceed to subsection 3 of this section.

   b. Where the cutting authority area is not entirely within the geographic boundaries of a timber licence or licences, the person determining the stumpage rate will then proceed to subsection 4 of this section.

3. a. Where the species being considered has a billing history record for that timber licence or licences that meets the criteria of subsection 4.2.2.2(4), then that billing history record will be the source of the log grade percentages for that species.

   b. Where there is no such billing history record, the person determining the stumpage rate will proceed to subsection 6 of this section.

4. a. Where the species being considered has a billing history record for the supply block of the timber supply area for the cutting authorities that were issued under the same licence as the cutting authority area being appraised or reappraised and that billing history record meets the criteria of subsection 4.2.2.2(4), then that billing history record will be the source of the log grade percentages for that species.

   b. Where there is no such billing history record, the person determining the stumpage rate will proceed to subsection 5 of this section.

5. a. Where the species being considered has a billing history record for the timber supply area for the cutting authorities that were issued under the same licence as the cutting authority area being appraised or reappraised and that billing history record meets the criteria of subsection 4.2.2.2(4), then that billing history record will be the source of the log grade percentages for that species.

   b. Where there is no such billing history record, the person determining the stumpage rate will proceed to subsection 6 of this section.

6. a. Where the species being considered has a billing history record for the entire supply block in the timber supply area that meets the criteria of subsection

4.2.2.2(4), then that billing history record will be the source of the log grade percentages for that species.

b. Where there is no such billing history record, the person determining the stumpage rate will proceed to subsection 7 of this section.

7. a. Where the species being considered has a two year billing history record for the entire timber supply area that meets the criteria of subsection 4.2.2.2(4), then that billing history record will be the source of the log grade percentages for that species.

b. Where there is no such billing history record, the person determining the stumpage rate will determine the log grade percentages for that species in accordance with subsection 4.2.2.2(5).

4.2.2.4 Damaged Timber

Where the regional manager determines that timber in a cutting authority area is suddenly and severely damaged, then notwithstanding section 4.2.2.1, 4.2.2.2, 4.2.2.3, 4.2.2.3.1 and 4.2.2.3.2 the log grade percentages for the cutting authority area being appraised or reappraised may be estimated from available site specific information.

4.2.3 Stand Selling Price

1. The stand selling price shall be calculated in an appraisal or reappraisal by using the net cruise volumes and species selling prices of the following species of timber:

Balsam	Lodgepole Pine
Cedar	White Pine
Cypress	Sitka Spruce
Fir	Engelmann Spruce
Hemlock	

4.2.3.1 Stand Selling Price Calculation

1. Subject to subsection 2 of this section:

a. a species grade value for a species of timber in a cutting authority area is the product of the percentage of that grade of that species as derived from section 4.2.2 multiplied by the average log market value for that grade of that species of timber,

b. a species selling price for a species of timber in a cutting authority area is the sum of all of the species grade values for that species of timber in the cutting authority area,

c. the rounded species selling price is the species selling price for a species of timber in a cutting authority area rounded to the nearest cent,

d. a species value is the product of the rounded species selling price multiplied by the species net cruise volume in the cutting authority area, and

e. the stand selling price is the quotient of the sum of all of the species values in a cutting authority area divided by the total net cruise volume of all of the species in the cutting authority area.

2. For the purposes of determining a stand selling price:

a. in the Pemberton, Yale and Nahatlatch timber supply blocks:

i. all spruce is deemed to be Engelmann spruce, and

ii. the hemlock and balsam average log market value will be used to determine the species grade values for all spruce in the cutting authority area,

b. where outside the Pemberton, Yale and Nahatlatch timber supply blocks:

i. Engelmann spruce is identified as the predominant spruce species in the cruise of the cutting authority area, or

ii. the district manager determines that Engelmann spruce is the predominant spruce species in the cutting authority area,

the hemlock and balsam average log market values will be used to determine the species grade values of all spruce in the cutting authority area,

c. where a cutting authority area is located on Cortes Island or on an Island between Vancouver Island and the British Columbia mainland west of a line drawn between Grief Point near Powell River and the Tsawwassen ferry terminal, and south of 50 degrees north latitude, the second growth Douglas-fir average log market values will be used to calculate the species selling price for all Douglas-fir timber.

4.2.4 Truck Hauling

1. Truck hauling is the transportation of logs from the cutting authority area by truck and includes all rehaul situations.

2. Truck haul distance is the net cruise volume weighted average one-way haul distance measured in kilometres and rounded to the nearest 0.1 km from the geographical centre of each part of the cutting authority area to the appraisal log dump.

3. The truck haul distance (HAUL) is established by:

   a. determining for each cutblock the shortest distance between the geographical centre of the cutblock and the nearest road,

   b. determining for each cutblock the distance from the point on the road determined in paragraph (a) of this subsection to the first road junction which may be accessed by road from each of the points determined in paragraph (a),

   c. weighting for each cutblock the distance from the cutblock to the road junction by the net cruise volume of timber on the cutblock,

   d. determining the weighted average distance of the cutblocks to the road junction, and

   e. measuring the distance from the road junction to the appraisal log dump.

4. The truck haul distance is the sum of the weighted average distance of the cutblocks to the road junction plus the distance from the road junction to the appraisal log dump plus the rehaul distance if required for inland water transportation provided for under section 4.4.2.

4.2.5 Marine Log Transportation

4.2.5.1 Point of Appraisal

1. The Points of Appraisal are:

Points of Appraisal	Location
Alberni	At the head of Alberni Inlet.
Chemainus	At Chemainus Bay.
Gambier Island	At Gambier Harbour on Gambier Island.
Pitt River Bridge	At the confluence of the Fraser and Pitt Rivers.

4.2.5.2 Log Towing

1. a. The information in table 4-4 is not used in the calculation of a stumpage rate but must be used by the licensee when completing the appraisal data submission.

   b. Where the appraisal log dump is at a towing point of origin listed in table 4-4, that towing point of origin must be reported in the appraisal data submission.

   c. Where the appraisal log dump lies between two towing points of origin, both towing points of origin must be reported in the appraisal data submission.

4.2.5.3 Log Barging and the Determination of Barging Distance (BARGEDIST)

1. Log barging is a log transportation method that may be considered in an appraisal or reappraisal.

2. a. Table 4-5 lists barging points of origin, the corresponding point of appraisal for each barging point of origin, and the distance between a barging point of origin and the corresponding point of appraisal.

   b. Where an appraisal log dump is at a barging point of origin, the bargedist is the distance between that barging point of origin and the corresponding point of appraisal for that barging point of origin.

   c. Where an appraisal log dump lies between two barging points of origin that both have the same corresponding point of appraisal the bargedist is the average of the two distances between the two barging points of origin and the point of appraisal.

   d. Where an appraisal log dump lies between two barging points of origin where each barging point of origin has a different corresponding point of appraisal the bargedist is the average of the distances between each barging point of origin and its corresponding point of appraisal.

Table 4-4: Towing Points of Origin

Code	Point of Origin	P/A	Code	Point of Origin	P/A
ALBE	ALBERNI	A	BUIM	M. OF BUTE INLET	G
CHCK	CHINA CREEK	A	KIIM	M. OF KINGCOME INLET	G
COCK	COLEMAN CREEK	A	KNIM	M. OF KNIGHT INLET	G
SARV	SARITA RIVER	A	LOUM	M. OF LOUGHBOROUGH	G
SPCK	SPENCER CREEK	A	TOIM	M. OF TOBA	G
TOBY	TOQUART BAY	A	NACK	NAKA CREEK	G
UCHU	UCHUCKLESIT	A	NOBY	NORTHWEST BAY	G
UCLU	UCLUELET	A	PHAR	PHILLIPS ARM	G
CHEM	CHEMAINUS	C	PTEB	PORT ELIZABETH	G
COBY	COWICHAN BAY	C	PTHD	PORT HARDY	G
JORV	JORDAN RIVER	C	PTHV	PORT HARVEY	G
LADY	LADYSMITH	C	PTMN	PORT McNEILL	G
NANA	NANAIMO	C	PTNE	PORT NEVILLE	G
SOOK	SOOKE	C	PORV	POWELL RIVER	G
VICT	VICTORIA	C	SENA	SECOND NARROWS	G
AGAM	AGAMEMNON	G	SYIN	SEYMOUR INLET	G
BECV	BEAVER COVE	G	SEBY	SOUTHWEST BAY	G
COUR	COURTENAY	G	SQUA	SQUAMISH	G
DRIN	DRURY INLET	G	STIL	STILLWATER	G
EVRV	EVE RIVER	G	TEAR	TEAKERNE ARM	G
FOHA	FORWARD HARBOUR	G	THIN	THEODOSIA INLET	G
FRAR	FREDERICK ARM	G	THSO	THOMPSON SOUND	G
BUIH	H. OF BUTE INLET	G	WASA	WAKEMAN SOUND	G
JEIH	H. OF JERVIS INLET	G	GAMB	GAMBIER ISLAND	G
KIIH	H. OF KINGCOME INLET	G	CHWK	CHILLIWACK	P
KNIH	H. OF KNIGHT INLET	G	HALF	FOOT HARRISON LAKE	P
LOUH	H. LOUGHBOROUGH	G	PILF	FOOT OF PITT LAKE	P
SEIH	H. OF SECHELT INLET	G	HABY	HARRISON BAY	P
TOIH	H. OF TOBA INLET	G	HATZ	HATZIC	P
INAR	INDIAN ARM	G	HALH	HEAD HARRISON LAKE	P
KLBY	KELSEY BAY	G	PILH	HEAD OF PITT LAKE	P
MNCK	McNAB CREEK	G	HALM	MID HARRISON LAKE	P
MEBY	MENZIES BAY	G	PIRV	PITT RIVER BRIDGE	P
MESD	MEREWORTH SOUND	G	SICK	SILVERHOPE CREEK	P
JEIM	MOUTH JERVIS INLET	G	WHON	WHONNOCK	P

P/A = Point of Appraisal as follows:

A = ALBE = Alberni
C = CHEM = Chemainus
G = GAMB = Gambier Island
P = PIRV = Pitt River Bridge

5.2 Forest Planning and Administration Cost

1. The forest planning and administration cost is based on surveyed expenses at the corporate licensee level including all aspects of executive and administrative expenses at the head office attributable to the harvest of Crown timber. The kinds of expenses that were taken into consideration to calculate this cost were:

   a. head office general and administrative expenses ($3.38/$m^3$).

   b. logging department, log trading and log supply expenses ($3.98/$m^3$).

   c. fees and taxes applicable to stumpage bearing timber ($0.83/$m^3$).

   d. engineering and forestry overhead expenses ($4.77/$m^3$).

2. The total forest planning and administration cost is $12.96/$m^3$.

5.2.1 Low Volume Cost

1. A low volume cost of $7.51/$m^3$ may be included in the tenure obligation adjustment where:

   a. the cutting authority area being appraised or reappraised is the subject of cutting authority issued under either a licence or its parent licence prior to subdivision that provides for an allowable annual cut of not more than 10 000 m^3 of Crown timber, and

   b. the total net cruise volume of the cutting authority area is not more than 5 000 m^3.

5.3 Road Development Cost

1. Except as provided in section 5.3.2, where a road development provides access to Crown timber a road development cost may be estimated for new road construction, and road reconstruction.

2. a. Except as provided in subsections (2)(b) and (2)(c) of this section the total net cruise volume is used to calculate the unit cost for new road construction and road reconstruction in an appraisal or reappraisal of a cutting authority area.

   b. Where a road development project was not taken into consideration in a prior appraisal or reappraisal of the cutting authority area, the remaining volume shall be used to calculate the road development unit cost for that project in the reappraisal of the cutting authority area.

   c. Where the reappraisal is because of sudden and severe damage the road development cost is calculated as follows:

      i) The road construction project costs prior to the sudden and severe damage reappraisal are totalled,

      ii) The sum of those project costs is the total project cost.

      iii) From the total project cost calculated in subsection 2(c)(i) of this section is subtracted the product of the total project cost multiplied by the total volume of timber in the billing history record of the cutting authority area on the effective date of the reappraisal, divided by the total net cruise volume of the cutting authority area.

      iv) The difference calculated in subsection (2)(c)(iii) of this section is then divided by the sum of the remaining volume plus the volume of timber that was suddenly and severely damaged,

      v) The calculation of the road development cost expressed as an algorithm is:

$$\text{Road Development Cost} = \frac{\text{total project cost} - (\text{total project costs x volume in the billing history record}) / \text{total net cruise volume}}{\text{remaining volume} + \text{volume suddenly and severely damaged}}$$

3. Except as further provided for in this manual the road development cost for a road development may only be used in the appraisal or reappraisal of a tributary cutting authority area.

4. A road development cost may be amortized in accordance with section 5.3.2.1.

5.7 'Y' Grade Number

1. The forest district 'Y' grade fractions by timber species as shown in Table 5-8 shall be used to calculate the tenure obligation adjustment to account for the 'Y' grade timber that is not subject to the appraised stumpage rate.

2. The 'Y' grade fraction for each timber species to be used in the appraisal or reappraisal of the cutting authority area shall be the fraction under the timber species which is opposite the forest district in which the cutting authority area is located.

3. The 'Y' grade number to be used in the calculation of the tenure obligation adjustment for a cutting authority area being appraised or reappraised is the sum of the products of the net cruise volume of each timber species in the cutting authority area multiplied by the 'Y' grade fraction for that species, divided by the total net cruise volume in the cutting authority area.

Table 5-8: Forest District 'Y' Grade Fractions by Timber Species

District in which the cutting authority area is located	Balsam	Hemlock	Cedar	Cypress	Fir	Spruce	Pine	Deciduous
Campbell River	0.0571	0.0457	0.0153	0.0361	0.0120	0.0189	0.0299	0.0400
Chilliwack	0.0781	0.0720	0.0139	0.0618	0.0220	0.0134	0.1138	0.1143
North Coast	0.0490	0.0869	0.0206	0.0442	0.0213	0.0516	0.0663	0.0383
North Island-Central Coast	0.0439	0.0483	0.0132	0.0505	0.0221	0.0462	0.0894	0.0194
Queen Charlotte Islands	0.0671	0.0808	0.0253	0.0853	0.0213	0.0690	0.0309	0.0383
South Island	0.0368	0.0523	0.0119	0.0375	0.0166	0.0380	0.1106	0.0358
Squamish	0.2598	0.1684	0.0129	0.0599	0.0488	0.4133	0.2730	0.1115
Sunshine Coast	0.0695	0.0519	0.0242	0.0793	0.0227	0.0370	0.1041	0.0266

5.8 Market Logger Road Cost

1. The market logger road cost expressed in $/m3 to be used to calculate the tenure obligation adjustment in an appraisal or reappraisal of a cutting authority area is calculated as follows:

   a. Where the entire cutting authority area is harvested by helicopter to a water drop, the market logger road cost = 0.

   b. For all other cutting authority areas the market logger road cost = $\frac{8.14}{1 - YG}$

Where: YG = Y grade number calculated under section 5.7

7.2 Cutting Authority Area With Less than 2 500 m^3 of Timber Volume

1. Where a cutting authority area has less than 2 500 m^3 of timber the stumpage rate may be determined:

    a. by estimating the volume of each species of the timber in the cutting authority area appraised,

    b. by using the stumpage rates that the Revenue Branch determines under section 7.1 for each of those species in the forest district in which the cutting area is located, and

    c. by calculating the weighted average stumpage rate for all of the species of timber in the cutting authority area.

2. Where an estimate of the species volume has not been made, the species stumpage rate determined under section 7.1 must be used for the cutting authority area.

3. The stumpage rate calculated under this section is not adjusted quarterly.

7.3 Road Permits

1. Except as provided in subsection (2) of this section, the stumpage rate for a road permit will be determined using Ministry stumpage billing records.

2. The stumpage rate for a road permit issued in conjunction with a timber sale licence entered into under sections 20, 21 and 23 of the *Act* or a licence to cut entered into under Section 47.6 of the *Ac*t will be the stumpage rate applicable to the cutting authority that authorizes harvesting in the cutting authority area to which the road permit provides access.

3. For the purposes of this section, a stumpage billing history record of timber harvested under a timber licence, where the timber licence area is within a tree farm licence area will be included with and be considered the stumpage billing history record of timber harvested under the tree farm licence.

4. a. Where the Ministry has a stumpage billing history record of timber harvested under a licence, the stumpage rate for a road permit is the weighted average sawlog stumpage rate of cutting authorities, other than a road permit, for cutting authority areas that are located in the same forest district as the area to which the road permit applies, and that are issued under the licence that entitles the licensee to apply for the road permit.

   b. The weighted average stumpage rate is the sum of the stumpage billed for all coniferous sawlogs during the billing period referred to in paragraph (c) of this subsection, divided by the sum of the volume of those species and grades.

   c. The billing period referred to in paragraph (b) of this subsection for a road permit appraisal or reappraisal, with an effective date between November 1, 2004 and January 31, 2005 is the twelve month billing period ending August 31, 2004. Thereafter, the billing period will be updated annually effective February 1st and will be the twelve month period ending November 30th.

5. Where there are no stumpage billing history records from which the stumpage rate may be determined under subsection 4, and the licence that the cutting authority is issued under does not provide for an allowable annual cut or has an allowable annual cut of Crown timber equal to or greater than 5 000 m^3, the stumpage rate for a road permit is the weighted average sawlog stumpage rate of:

   a. all cutting authorities, other than road permits, that are issued under the licence that entitles the licensee to apply for the road permit, or

   b. where there is no volume in the stumpage billing history record, all the cutting authorities, other than road permits, that are for areas located in the same forest district as the area to which the road permit applies.

7.6 Miscellaneous Stumpage Rates

7.6.1 Miscellaneous Stumpage Rates

Unless otherwise specified in a cutting authority, the stumpage rates for deciduous species, low grade logs and timber in specified areas listed in Table 7-1, are listed in Table 7-1.

7.6.2 Special Forest Products

Unless otherwise specified in a cutting authority, Table 7-2 shall be used for determining stumpage rates for the specified products from all sources of Crown timber. The table in effect on the date of scale shall be used to determine the stumpage rate.

7.6.3 Marine Log Salvage

7.6.3.1 Beachcomb

A beachcomb rate may apply to logs salvaged in the Vancouver log salvage district under Part 9 of the *Act*, and stray logs salvaged elsewhere in coastal waters.

The stumpage rate for beachcomb is listed in table 7-1.

7.6.3.2 Root Buck

A root buck rate may apply to any species where the roots are attached at the time stray logs are salvaged in coastal waters. Excludes logs salvaged from coastal waters within the boundaries of the North Coast and Kalum Forest Districts.

The rate for root buck is listed in table 7-1.

7.6.3.3 Wahleach Island Catchment Basin

The stumpage rate for logs salvaged at Wahleach Island catchment basin operated by B.C. Debris Control Board is listed in table 7-1.

7.6.3.4 Deadhead Logs

A deadhead rate may apply to deadhead logs as defined in the log salvage regulation, salvaged in coastal waters and subject to scaling requirements under part 6 of the *Act*.

The stumpage rate for deadhead logs is listed in table 7-1.

Table 7-1: Miscellaneous Stumpage Rates

Species	Region Product Code	Product	Stumpage Rate ($/m^3)
Deciduous	N/A	All (except grades 'Y', 'Z')	$1.00
Yew	N/A	All	$0.25
All Species	N/A	Grade 'Y'	$0.25
All Species	**BC**	Beachcomb	$0.70
All Species	**RB**	Root buck	$7.80
All Species	**DH**	Wahleach Island catchment basin	$0.25
All Species	**DH**	Deadhead logs	$0.25

Table 7-2: Special Forest Products Stumpage Rates

Species	Region Product Code	Product	Stumpage Rate ($/m^3)
All Species	**CA**	Cants (produced from dead and down post-logging residue)	$9.60
All Species	**FW**	Firewood (round or split) - maximum length 1.2 m	$1.00
Cedar	**MT**	Mining Timbers - maximum length 2.4 m	$3.00
All Species	**PR**	Posts and Rails (split and round)	$1.20
Cedar	**PR**	Posts and Rails (split and round)	$3.00
All Species	**SB**	Shake and Shingle Bolts, Blocks and Blanks	$5.30
All Species	**SK**	Shakes	$6.00
All Species	**SS**	Stakes and Sticks (Car Stakes, Grape Stakes, Hop Poles, Lagging (split, Orchard Props, Pickets and Palings, Stakes and Stocks (sticks))	$1.20
All Species	**XM**	Christmas Trees Less than 3 m - 3 m to 5 m - greater than 5 m -	$0.20 $1.00 $1.50

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